The effectiveness of a "patient discharge information" booklet in patient education programs in Saudi Arabia

Amani Mohammed Al Rebeh

University of Northern Iowa

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THE EFFECTIVENESS OF A “PATIENT DISCHARGE INFORMATION” BOOKLET IN PATIENT EDUCATION PROGRAMS IN SAUDI ARABIA

An Abstract of a Dissertation

Submitted

in Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

Approved:

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Dr. Radhi Al-Mabuk, Committee Chair

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May 2018
ABSTRACT

The purpose of this research was to investigate the effectiveness of the Patient Discharge Information (PDI) booklet on the knowledge, attitude, and behaviors of participants who were cesarean patients in local hospitals in Saudi Arabia. This study investigated the following two research questions: (1) does the participant have information, resources, and understand basic personal health information regarding her health conditions including diagnosis, treatment, self-care management, medication instructions, normal expected symptoms, dangerous signs and what to do, as well as lifestyle changes?; and (2) how does patient discharge information provided by the hospital make a difference in participants’ knowledge, attitude, and behaviors?

This research used an experimental pretest-posttest design with both an experimental and control group. The two-group, pretest-posttest design includes one dependent variable (a patient discharge information booklet) and three independent variables: patients’ knowledge, attitude, and behavior. The population in this study were women who had undergone caesarean section deliveries and were selected from the obstetrics or gynecology department (OB/GYN) in general hospitals located in the Eastern Province of Saudi Arabia. A 17-item questionnaire was used both at pre- and post- test. The treatment was the PDI (Patient Discharge Information), which was given immediately after pre-test. The post-test was given four weeks later.

For bivariate analysis, two additional methods were used in this study: the two-sample t-tests on the different scores between pretest and posttest and repeated measures/split-plot analysis of variance. The results of this study showed that the PDI
(Patient Discharge Information) increased experimental participants’ knowledge, attitude, and behaviors regarding diagnosis, medical procedure, treatment, self-care management, signs and symptoms awareness, medication, lifestyle, diet, and psychological health. The results also showed that the control participants decreased from pretest to post-test in their knowledge, attitude, and behaviors regarding the medical procedure, treatment, signs and symptoms awareness, lifestyle, diet, and psychological health. The results of this have implications for policy and practice in the field of healthcare services. The results also provide recommendations for future research in this area.
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Amani Mohammed Al Rebeh
University of Northern Iowa
May 2018
DEDICATION

I thank God for everything. I thank my loving husband, Waseem, for his support, encouragement, and patience through my doctoral studies. Your compassion during this time in my life and always makes me very proud to be your wife. Thanks to my son and my daughters, Faris, Lama, and Noor, who always give me strength to be active in working, always make me smile and happy. I dedicate this humble work to my father, my mother, my dear husband, my son (Faris) and my daughters (Lama & Noor). To all my family members and my friends, and to all those who worked hard to help me.
ACKNOWLEDGEMENTS

This dissertation is now complete. Part of my dreams is complete now. I reached to the end of my educational journey. I cannot imagine that. Thank God for wisdom and strength. Thank God for my loving family, friends, colleagues, and dedicated dissertation committee members.

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CHAPTER 1

INTRODUCTION

The provision of quality patient information is an essential tenet of health care (Sheard & Garrude, 2006). Discharging from a hospital is a transitional moment when patients transfer from the hospital environment, in which health care providers are wholly focused on their health needs, to a home environment. In the home environment, families become responsible for taking care of the patient (Ben-Morderchai, Herman, Kerzman, & Irony, 2010). A discharge from the hospital to home is a serious and complex moment in patients’ lives. It can cause stress and anxiety to patients and their families. This stress and anxiety can be decreased through giving patients some information, education, and reassurance. This information plays a critical role in patients’ welfare. In general, patients want written information and resources regarding home care, daily activities, signs and symptoms management, and pain and coping management (Clark et al., 2005).

Patient discharge summaries are communication between inpatient and outpatient health care providers. Discharge information summaries should involve medical and administrative information, such as diagnosis, details about hospital course, follow-up instructions, and lab investigation results (Kripalani, Jackson, Schnipper, & Coleman, 2007). According to Makaryus and Friedman (2005), patients should know about their diagnosis, treatment options, the medication names, doses, and side effects to have a successful transition from the hospital to home. Also, patients should know about the implications with or without treatment.
Discharge instruction is defined as any style of documentation that health care providers give to the patients or guardians, upon discharge from the hospital to home for purposes of facilitating a safe and appropriate continuity of attention. Also, discharge instructions may be verbal or written, but patients like to be spoken to and have this conversation reinforced by written instructions (Taylor & Cameron, 2000). Educating the patient at discharge from hospital to home has a lot of advantages for patients. It promotes self-care skills, reduces the rate of readmission, helps patients to identify problems early, and increases the chance of side-effect intervention and improving outcomes (Paul, 2008).

Patients’ knowledge of their diagnosis and plan of treatment are essential components in patient education and part of most patient’s Bill of Rights. According to New York State, number eight on the list of patients’ rights states “that patients have the right to receive complete information about their diagnosis, treatment, and prognosis.” The 14th right states that “patients shall participate in all decisions about their treatment and discharge from the hospital” (Makaryus & Friedman, 2005, P.991).

Release time from hospital to home is a vulnerable period for patients and their families. In general, the time following discharge from the hospital is associated with the transition of health care from the hospital to the community, or from the hospital to patient’s self-management. This change may lead to some adverse effects such as, readmission to the emergency room, additional clinical visits, hospitalization, or poor health outcomes. Communicating well with patients is critical as patients’ need to be informed before leaving the hospital. Also, educational materials, such as discharge
documents, improve patients’ health knowledge and outcomes. For many reasons, patients in hospitals in Saudi Arabia should be sent home with educational discharge instructions which include diagnosis, medication instructions, standard signs and symptoms and what to do if further complications arise, as well as any lifestyle changes needed.

The main purpose of this study is to measure the effectiveness of the Patient Discharge Information (PDI) among inpatients in Saudi Arabia. The goals of this study are fourfold. The first goal is to assess the initial state of the inpatient’s knowledge and attitude at the point of discharge. The second goal is to apply Patients Discharge Information (PDI) among inpatients in hospital in Saudi Arabia. The third goal is to measure patients’ knowledge, attitude, and behavior after applying Patient Discharge Information (PDI). The fourth and final goal is to measure the differences in knowledge, attitudes, and behavior among patients who receive the Patient Discharge Information and patients who did not.

Based on the findings of the research studies reviewed, educational materials such as release documents improve patient health knowledge. Studies show that 40-80% of the information given orally to the patient is forgotten immediately, and half of that information is retained incorrectly. Also, studies show that poor health literacy leads to poor health outcomes, especially for elderly people, those with low levels of education, and immigrants with language barriers. In regard to how discharge information is communicated with patients, Toronto Central Local Health Integration Network (TC LHIN) hospitals in 2012 - 2013 found that 80% of patients know the purpose of their
home medications. And, 63% of patients know what side effects of medication are important to watch out for. Also, 54% of patients know when to resume daily activities. Finally, 64% of patients know relapse and complication signs and symptoms after going home, and 74% of patients know when to call or ask for help (Toronto Central Local Health Integration Network, 2014).

In regard to the etiological factor of hypertension, study in Saudi Arabia found that 31.6% of hypertension patients did not know the complications of high blood pressure, while 42.1% knew that hypertension might lead to some neurological complications, and only 1.6% said that hypertension could lead to renal complications (AlSowielem & Elzaubier, 1998). Also, giving patients accurate and complete discharge summaries helps to reduce readmission to the hospital. Legault, Ostro, Khalid, Wasi, and You said, “Patients are particularly susceptible to medical errors during transitions from inpatient to outpatient care” (2012, P.1).

Van Walraven, Seth, Austin, and Laupacis (2002) measured the effect of discharge summaries on patient outcomes. They found that discharge summary information was available for only 12.2% of participant patients, and the rate of readmission among those patients was small compared with patients who did not receive a discharge summary. In general, 27% of patients who did not receive a discharge summary were readmitted to hospitals. The authors said that “we found a trend toward a decreased risk of readmission within 3 months if patients were seen in follow-up by a physician who had received the discharge summary” (P. 190).
Mahrous (2013) investigated patients’ perception and satisfaction regarding the discharge information given to them upon discharge from the hospital in the Kingdom of Saudi Arabia. One hundred seventy-six patients participated in that study. The researcher found that 44.3% of patients were dissatisfied about information that explained their needs before discharge from hospital; 45% of patients were dissatisfied about information given which explained to them what they should do after discharge from the hospital; 46.6% of patients did not receive any information about potential complications; 46.6% of patients did not receive any information regarding signs and symptoms; 69.3% of patients did not know who can call for assistance in the emergency cases; 35.3% of patients lacked the information about medication; 52.3% of patients did not receive any information about the reason for each medication; 69.3% of patients did not have information about the possible medication side effects; 46.6% of patients did not have any dietary information; 52.3% did not have information about a follow-up plan; 60.2% of patients did not have information about how their health condition impacts their life; 45.5% of patients did not make plan in the hospital for follow-up after discharge; 68.2% of patients did not have any written discharge document which explain the patient’s medical condition and further post discharge instructions. Among surgical patients, 41% of patients did not have information about how to care for the surgical or wound site; 42% were dissatisfied about the clarity of post discharge information.
CHAPTER 2

REVIEW OF LITERATURE

Demographics

The Kingdom of Saudi Arabia is the largest and most populated country in the Gulf Cooperation Council (Saudi Arabia, Bahrain, Kuwait, Oman, Qatar, and United Arab Emirates). The Saudi Ministry of Health provides 60% of its health care services, operating over 188 hospitals with more than 27,994 beds. Other institutions offering health care in Saudi Arabia include private providers (20%), military hospitals (13%) and teaching hospitals (7%; Memish, Venkatesh, & Ahmed, 2003). According to the World Health Organization (WHO), Saudi Arabia ranked 26th of 176 nations in health system performance. The government of Saudi Arabia provides free and accessible healthcare services to all Saudi Nationals and expatriates who work in the public sector. Saudi Arabia has made advancements in health care and social services that have led to an increase in population growth of 2.7% and an increase in life expectancy from 52 years in 1970 to 72 years in 2005 (Aldossary, While, & Barriball, 2008).

Health Statistics and Information in Saudi Arabia for 2016

In Saudi Arabia, the Ministry of Health is the main provider of the health care services. There are three types of hospitals in Saudi Arabia. They are governmental Ministry of Health (MOH) hospitals, other governmental sector hospitals, and private hospitals (World Health Organization, 2017).
According to the Ministry of Health in Saudi Arabia, the total estimated population size in 2016 is 31,521,418 and adult and life expectancy is 74.3 years. The statistical book shows that the rate of crude birth is 21 per 1,000 populations and the crude death rate is 3.9 per 1,000 populations. In addition, infant mortality rate in Saudi Arabia is 7.4 per 1,000 live birth (Ministry of Health – Kingdom of Saudi Arabia, 2017).

Total number of Ministry Health Organization (MHO) Government Hospitals in 2016 is 274 and included 41,297 beds. The highest percentage of beds was in internal medicine departments by 15.2%, followed by pediatric departments by 11.8%, then general departments by 11.7%. Total number of other governmental hospitals in 2016 is 12 hospitals. The number of beds in other Government Hospitals is 11,449. The highest number of beds was that in the department of internal medicine (22.4% of the total beds), followed by the number of beds in the departments of surgery (15.0% of the total beds). The total number if private hospitals in Saudi Arabia is 145 hospitals and 16,648 beds. One Obstetrics and gynecology (OBS/GYN) and Pediatric specialist hospital in the eastern region and included 400 beds. Hospitals beds in other Government Sector OBS/GYN hospital is 1529. Beds in a private sector in the eastern region in the OBS/GYN department is 471. The total beds in OBS/GYN in Saudi Arabia is 2262. (Ministry of Health – Kingdom of Saudi Arabia, 2017).

The total of emergency cases in MOH Government hospitals in the eastern region in the OBS/GYN department is 20,440. The total cases in Saudi Arabia is 437,510. All emergency cases in Saudi Arabia in the MOH hospitals is 21,228,665 cases. The total number in cases of OBS/GYN 437,510. MOH hospital visit in OBS/GYN in the eastern
region is 147,213. The number of cases in all departments is 1,606,267. The number of cases in Saudi Arabia in OBS/GYN department is 1,805,785. The number of cases in all department is 16,474,961. The number of visits to antenatal and GYN clinics in 2015 is 1,334,908. The number of postpartum hemorrhage is 2,078. The number of abortion cases is 42,927. Visits to various health sectors in the ministry of health is 66,090,893 (47.7%). Other governmental sector visits number 22,046,779 (15.95%). Private sector visits number 50,463,743 (36.4%). The total is 138,601,415. Average number of visits per person per year is 4.4 (Ministry of Health – Kingdom of Saudi Arabia, 2017).

The total inpatients at MOH hospitals is 1,705,891. The OBS/GYN rate is 71.5%. The average of number of admission per 100 persons of population is 5.4. The occupancy rate in OBG/GY is 59.0. In general, 55.1% inpatients in other Governmental Sector Hospitals number 494,861. The number of inpatients in private sector hospitals in the eastern region is 236,551. The total number of inpatients is 1,148,903. Inpatients in various health sector hospitals total 3,349,659. The average number of admissions per 100 persons is 10.6 (Ministry of Health – Kingdom of Saudi Arabia, 2017).

The number of deliveries in MOH hospitals in the eastern region is 9,981 are vaginal deliveries and 2,518 cesarean section deliveries. The total of all hospitals 189172 (76.6%) vaginal, and 51538 (20.9%) cesarean. Birth deliveries in other Governmental Sector Hospitals are 55,210 vaginal deliveries (67.35%), and 23,278 cesarean deliveries (28.45%). Births at MOH hospitals in 2015 was 266,184. The total number of births in another Governmental Sectors Hospital was 83,981. The total number of neonatal deaths during 1st week was 524. Operations in other governmental sector hospitals in Saudi
Arabia number 197,906 and 35,981 of those are in OB/GYN hospitals. Operation in private hospitals number 417,953. 111,198 operations were in OB/GYN and 12,960 were in the eastern region (Ministry of Health – Kingdom of Saudi Arabia, 2017).

The number of medical malpractice cases referred to medical legal committees in the eastern region is 596. The total is 3,043. Distribution of resolution of medical malpractice death cases issued by medical-legal committees totals to 374 (Ministry of Health – Kingdom of Saudi Arabia, 2017).


**Patient Teaching and Education**

Patient education is a set of instructions that focuses on increasing patients’ ability to manage their health. Also, patient education is involved in the informed consent process which protects the care provider from any malpractice claims. Also, patient education has been found to be both cost-beneficial and cost-effective in some conditions such as asthma and heart failure (Wei & Camargo, 2000). In general, patient teaching and education involve informing patients about health, illness, and disability. Both patient teaching and education have become important standards of good practice in the medical field. They are essential components of health care. Nurses and all medical professionals
should play a role in patient teaching and education (Holloway, 1996). Many studies in teaching methods, patients’ learning needs, and other studies on the acquisition of knowledge field found that education can have a positive effect on patients’ health outcomes (Henderson & Zernike, 2001).

**Discharge Summary and Instruction**

Discharge summary and instruction is a set of documents that contains much useful information about the patient based on the diagnosis and/or procedures done in the hospital (Long, 2005). Discharge summaries provide information that is critical and relevant to the patient, which includes such as items the patients’ diagnoses, brief patient history, general information regarding the physical examination, investigation and results, progress and treatment, and plans and follow-up. Also, if a patient wants to visit another health care center, it is great to give these summaries to them as sources and references. Since the 1990s, clinical practice has developed the implementation of comprehensive discharge planning to be the standard practice upon release from the inpatient setting (Cunningham, Eisenberg, Wickline, & Berg, 2014). The hospital discharge summary is the primary document that physician uses for recording and retrieving patient’s details in the hospital and description of clinical events, medications, and follow-up instructions. Medications and diagnostic results play as critical information in the discharge summary (Myers et al., 2006). Henderson and Zernike mentioned that “One of the key functions of discharge information is to ensure that patients have the necessary knowledge to perform self-care” (2001, P. 436).
Legault et al. identified the essential keys for a discharge summary. They suggested that any discharge summary should identify any unresolved medical issues, test results, and information regarding discharge medication. Similar, they said that “These items, when missing, can have an adverse impact on patients care and could affect health outcomes” (2012, P.1). The validated discharge summary format regarding the Joint Commission Standards (JCS) includes discharge diagnosis, discharge medication list, changes to medications, clinical course in hospital, investigation results, and follow-up instructions (Clark et al., 2005).

Van Walraven et al. suggested that discharge summaries can help patients if their physicians also receive them. Additionally, they are pushing health care departments to improve discharge summaries (2003). Lithner and Zilling said that patients “Want a lot of information both at admission and discharge” (2000, P.29). Also, they found that written information given to the patient could improve expected outcomes. In addition, they found that 30% patients want to receive written and verbal information regarding their health condition (Lithner & Zilling, 2000).

Coulter, Entwistle, and Gilbert, (1998) noted that “The patient’s Charter promised patients the right to information about their health care and the opportunity to be involved in decisions about their treatment if they so wished” (P.4). Most of the patients want information about medical conditions and treatments, and most of them find it difficult to find access to the correct, reliable information. Most of the patients would like health professionals to make a decision about their care and provide them with the rationale and information needed for knowledgeable self-care (Coulter et al., 1998).
Rapid growth has occurred in the types of patient information materials such as leaflets and videos and multi-media technology. Also, the internet provides much health information, some of dubious worth. The National Health Services (NHS) Executive’s Patient Partnership strategy in the United Kingdom was established in June 1996 to make a committee that works to improve reliability in medical practice. This partnership has been promoting patient involvement in health service development and policy-making. The primary objectives of the NHS organization is to improve patient’s participation in their health care. Also, to help the patient to be an active partner with health care professionals, enable patients to become informed about their health care and treatment, and help the patient to make informed decisions and choices they want (Coulter et al., 1998).

According to Coulter et al., 1998 they found that during illness and treatment, a patient wants a differing range and depth of information, depending on his or her stage of treatment. All of these depend on the patient’s emphasis, the condition or health problem, and personal experiences. But in general, studies found that patients want information for multiple reasons, including: an explanation of the illness, diagnosis and treatment process, possible outcomes, assistance in self-care, to learn about available resources and services, be provided with reassurance and help, and identification of the best health care providers.

In the emergency department (ED), communication between caregivers and patients is very broad and essential. The complex environment in the emergency department in some hospitals leads to missing this important communication. Some of
the previous studies found that patients leave the emergency department with an incomplete understanding of their health care and instructions. Many factors cause that situation. Many studies found the demonstration of discharge instruction in the emergency department often exceeds patients’ health literacy or reading levels. Also, one study found that verbal exchange between patients and caregivers was very brief and incomplete (Engel et al., 2012).

Each patient wants to receive general information about his or her health condition (Lithner & Zilling, 2000). Regarding the patients with malignant symptoms, Ali and Khalil (1989) examined the effect of educational materials among Egyptian bladder cancer patients. They found that educational material lowered the level of anxiety among patients before discharge. Also, they found that patients increasingly want to know about the diagnosis’s cause rather than surgical interventions. In addition, Ali and Khalil found that the presence of stress and anxiety related to the impact of surgery on the patient’s body and on their social and marital status after surgery was highest among patients who did not receive any educational materials (1989).

Preparation for patient discharge plays as a major determinant for patient outcomes and satisfaction. Patient discharge information in general is what patients expected to receive from health care professional before discharge from the hospital related to their health condition in different aspects included physical, psychological, and social (Mahrous, 2013). According to Mahrous (2013), “Receiving information regarding their health conditions and how to cope with then will help patients and their families on how better deal with the medical problems and their effects after discharge” (P. 106).
The Ministry of Social Affairs and Health (2011), improved well-being and living standards, education and knowledge among population to prevent illness and improve participation in the own health issues. Patients can participate in decision making related to their health if they have information about their health status and condition. The Act of the Status and Rights of Patients in 1992 requires that

Patients shall be given information about their state of health, the significance of the treatment, various alternative forms of treatment and their effects and about other factors related to their treatment that are significant when decisions are made on the treatment given to them (Suhonen, Nenonen, Laukka, & Valimaki, 2005, P. 1168).

Patient counseling is effective in increasing patient physical activity and improving quality of life or health-related quality of life which improves patient satisfaction and reduces anxiety. Also, it is required for providing patient’s need and increasing the treatment compliance. The Act of the Status and Right of Patients 1992 informed that “information delivery is not mandatory: information shall not be given against the will of the patient” (Suhonen et al., 2005, P. 1169).

The type, amount, and timing of the information in the discharge summaries may vary from patient to patient depending on age, gender, and education level. Different age groups need different information than other age groups. In the preparation of the discharge summary, health care providers should be providing what patients need and want. Studies found that older patients want less information, and women want more information than men. Also, the patient’s level of education has been associated with the information needs and more received (Suhonen et al., 2005). Suhonen and colleagues (2005) found that younger patients with high education levels want more information
about illness and treatment than others. In general, “understanding patients’ needs and preferences and helping them to access and understand relevant and appropriate information are the key issues today” (Suhonen et al., 2005, P. 1169).

Suhonen and colleagues (2005) examined the accuracy of discharge information received by inpatients and compared the information received with what the patients needed. They found that 83% of patients want information about health-illness and diagnosis and 77% of patients want information regarding examination and results. Also, they found that 74% of patients want information regarding medical procedures and treatment and this information is crucial for them. Only 33% of patients want information regarding care options. In addition, they found that patients prefer information about medical aspects over information about daily management. 40% of patients want information regarding rehabilitation, 37% want information about aftercare, 27% want information about the effect of illness on the functional ability, and 23% want information about patient’s rights and only 5% want information about patient associations. As a result, patients desired to have information of a medical nature rather than lifestyle management.

More patients want information regarding diagnosis, examination, and treatment. In general, the information about medication, pain management, risks or progress of treatment, rehabilitation, aftercare, and anesthesia are less important to patients. “Tailored information to specific patients according their interests and needs is warranted” (Suhonen et al., 2005, P. 1174).
Uses for Patient Information

There are many different uses for patient information in the health care system. According to Coulter et al., 1998, the primary uses include helping promote health and prevent disease, informing the patient about self-care and treatment options, improving the effectiveness of clinical care, and improving clinical decisions. To fully understand the ways in which patients utilize health education information, each of the areas will be briefly detailed.

Information about health promotion and diseases prevention is one of the uses for patient information. In general, this is a traditional use of health education. It works through providing information on a disease’s risks and how to avoid them. In general, most of the health education materials have been designed to change people’s lifestyle, modify risk factors, and provide a specific population’s needs. In the health education field, educating people about illness and how to recognize signs and symptoms plays a secondary role (Coulter et al., 1998).

Self-care management plays an important role in recovery from ill health. In the USA, Federal and State government provide funding for programs which promote self-care management. Healthwise is a patient education program in Idaho. This program attempts to assist people in looking after themselves and can aid them in making decisions about their health, including when they should seek professional medical assistance. This kind of health education is mostly utilized with chronic diseases such as asthma, diabetes, and epilepsy. This can also include teaching the patient about how to use medication and monitor for side effects. This provision of informational material has
been shown to enhance the patient’s ability to manage their treatment (Coulter et al., 1998).

Additionally, informing patients about treatment options is another core function of the provision of patient information. Addressing this point, Coulter et al., 1998 said that “Ideally patients’ who want it should get detailed explanations about their condition and the likely outcomes with and without treatment. Information about the risks and benefits of treatment options should derive from the best and most up-to-date scientific evidence” (P.8). Studies have found that the provision of informational materials can have positive effects on the long-term care outcome including reducing the rate of consultation and subsequent referrals, the rate of hospital re-admission, the rate of re-consultation, and improving patient follow-up (Coulter et al., 1998).

Giving patient information helps encourage patients to participate in treatment decisions, which can lead to improvements in the relationship between physicians and patients, improve health status and increase the quality of life. In some diseases, there are multiple treatment options with different outcomes and results. In that situation, patients should be aware of that and have the ability to choose and make a decision with health care providers. Studies have found that informed patients can increase the effectiveness of treatment (Coulter et al., 1998).

One study was conducted to determine the efficiency of educational intervention on treatment options and consultation among patients with different conditions including ulcer diseases, hypertension, diabetes, and breast cancer by educating one group of patients about diseases and treatment and not providing any information to the second
group. They found that no difference between the two groups on the decision time; but, the group who received the health education and coaching were more aware and involved in the healthcare interaction and had significantly better health outcomes, especially for blood pressure and blood sugar than the second group (Coulter et al., 1998).

In the past, doctors expected patients to follow their instructions and treatment without any questions. In 1871, Oliver Wendell Holmes gave advice to his, then, US medical students: “Your patient has no more right to all the truth to know [about his condition] than he has to all the medicine in your saddlebag…. He should get only just so much as is good for him…..” as cited in (Coulter et al., 1998, P. 9). In the practice of modern medicine, the relationship between doctor and patient has changed dramatically from the time of Dr. Holmes. Currently, patients are more likely to challenge the doctor about the best diagnostic approaches, and they want to know more information about their condition and treatment options. The “doctor as authority” relationship is shifting toward a relationship of joint decision making, leaving behind the traditional doctor-patient relationship for something far more interactive and collaborative (Coulter et al., 1998).

Patient information improved the communication between healthcare providers and primary health care physician and patients. “Communication is a fundamental instrument by which physicians, staff, and patients related to each other is crucial for proper medical and nursing care” (Arabi et al., 2012, P. 5). Good communication between inpatient physicians and outpatient physicians is very critical to provide patient safety, and poor communication lead to adverse events that occur shortly after discharge
from hospital (Roy et al., 2005). Discharge information contains an important of the information transfer between the inpatient and outpatient physicians (O'Leary et al., 2009). Communication between inpatient physician and post hospital care team is essential to provide a safe transition for patients. Studies found that patient follow-up with physicians who have access to the hospital discharge summary was associated with a decreased risk of re-hospitalization (Halasyamani et al., 2006). A poor communication between patients and physicians has been related to serious adverse results. In general, discharge summaries are the best way hospitals communicate with the family doctors (Van Walraven et al., 2002).

Discharge summaries can improve patient health care services only if they are sent to the follow-up physicians. This is very important factor because patients saw from one to three different physicians after discharge from the hospital. Primary health care physicians want source of information regarding their follow-up patient after discharge from the hospital, such as interim discharge reports telephone calls to hospitals physicians because patients cannot give the doctors fully informed details about their time in the hospital. In general, patients are an unreliable substitute for a discharge summary (Van Walraven et al., 2002). Van Walraven et al. (2002) found that discharge summaries improve patients’ knowledge, satisfaction, and summary dissemination because patients become responsible for giving their discharge summary to the follow-up physicians.

Arabi and colleagues (2012) examined the incidents reports in the hospitals in Saudi Arabia in the intensive care units. They found that ineffective communication is a
major factor in medical errors in 60 to 70% of serious incidents. Poor communication between physician and patients and between physicians and other health care providers is an important cause of medical errors. Arabi et al. suggested to improve communication, health care services should use structure tools such as the situation-background-assessment-recommendation technique (2012). The SBAR (Situation-Background-Assessment- Recommendation) is a technique which works to provide a framework for communication between health care providers team about patient’s health condition (Institute for Healthcare Improvement, n.d.).

**Patient Rights**

The Ministry of National Guard-Health Affairs (2014), stated regarding patient rights in the health care services:

The patient and his family are entitled to have a complete explanation of the medical procedures required for his treatment including any potential complications, which he might be liable to due to the treatment and in cases where communicating this information to the patient might affect his health, it will be relayed to his family where an informed consent will be obtained. The patient and his family will receive necessary education and directions for the medications and diets as ordered by healthcare workers in order to benefit from treatment (P. 1).

According to the Ministry of Health (MOH) in Saudi Arabia on patient rights, the patient rights in the health care field, include

The patient and his/her family are entitled to ensure that the patient or his/her legal guardian is fully clearly informed about the case and health status in an understandable language, The patient and his/her family are entitled to have an appropriate mechanism to educate then enough to deal with the patient’s medical condition. Provide the patient or his/her legal guardian with complete and updated information about the diagnosis and treatment in an understandable language, Introduce the patient to the identity and professional status of the health care
providers responsible of his treatment, and inform him/her in case there are licensed trainees in the medical team. Discuss the potential complications, risks, benefits and the alternatives to the proposed procedures - if any- with the patient or his/her legal guardian and Inform the patient of the kind of interventions, medications and the radiology used in the treatment; there efficiency and safety (Ministry of Health – Kingdom of Saudi Arabia, 2011, P.2 & 3).

Studies found that discharge summaries were available for 15.2% of patients at their first follow-up visit after discharge form hospital and available for only 8% of patients at initial visits (Van Walraven et al., 2002). Also, Gandara et al. (2009) investigated discharge summaries and found that discharge summaries are often missing essential information such as diagnostic test result in 33 to 63% of summaries, treatment intervention in 7 to 22% of summaries, discharge medications in 2 to 40% of summaries, test results in 65% of summaries, patient or family counseling in 90 to 92% of summaries, and follow-up plans in 2 to 43% of summaries. Regarding missing information from discharge summaries, one study found that primary health care physicians were unaware of 62 percent patients’ laboratory tests or results that were pending on discharge (Horwitz et al., 2013).

**Types of Discharge Instructions**

**Manual Discharge Summary**

There are three main types of discharge instructions given in the modern health care system. They are the instruction note, pre-format instruction sheet, and the information sheet. The instruction note is simply a set of instructions written by hand or typed on plain paper without the use of any standard format, graphics or the assistance of computer programs. The advantage of the instruction note is that it is tailored to each
patient. The disadvantages are a lack of some desirable features such as graphics, lack of structure, limited usefulness due to poor handwriting, and that they take a long time to prepare (Taylor & Cameron, 2000).

The pre-formatted instruction set is a set of instructions written by hand on a pre-formatted document. The patient instructions are simply completed under a particular heading that is designed to be comprehensive for all aspects of discharge self-care. The advantages of the pre-format instruction summary are that they assure simple language are, organized under a particular heading, are tailored to the patient’s treatment with less concern about physician writing but more structured information. They encourage the health care provider to be concise and quick and easily transfer the information to the patient record. The main disadvantages are that the standard forms take a long time to prepare and provide limited detail in regard to specific patient concerns (Taylor & Cameron, 2000).
Example of discharge instruction sheet from Royal Hospital Accident & Emergency Department

Patient’s name: …………………………………………………………………

This form provides you with initial instruction about your medical care. Please keep this and take it with you in case you need further care.

You were seen today by Drs. ………………………………………………………… (house officer)
………………………………………………………………………………………………………………….. (Specialist)

Your diagnosis ………………………………………………………………………...

Expected course of the illness ……………………………………………………………

Potential complications which may occur …………………………………………………

Instructions:
……………………………………………………………………………………………
……………………………………………………………………………………………
……………………………………………………………………………………………
……………………………………………………………………………………………
……………………………………………………………………………………………
……………………………………………………………………………………………
……………………………………………………………………………………………

Medication prescribed (name, dose, frequency, purpose):

1. ……………………………………………………………………………………………
2. ……………………………………………………………………………………………
3. ……………………………………………………………………………………………

Continue/change your usual medication …………………………………………………

Return to the emergency department if …………………………………………………

Follow up with ………………………………………………………………………
At phone No ………………………………………………………………………
Follow up within …………days……………………………. weeks………

Instruction given by:
Name…………………………………………………………………………………….
Signature………………………………………………………………………………….

I have received and understand these instructions
Name…………………………………………………………………………………….
Signature………………………………………………………………………………….
Date ……………………………….time ……………………………………….

Figure 1. An example of pre-format instruction sheet.
An information sheet is a pre-printed educational document that is prepared for one particular type of disease. The advantages are that it is immediately available, cheap, reproducible, and designed to include simple language and graphics. The disadvantages are that it is tailored to a disease rather than a patient, it gives inadequate instruction in regard to specific patients, it can be difficult for some patients to understand, and it may require more supplementations compared with other instructions (Taylor & Cameron, 2000).

Electronic Discharge Summary

Electronic discharge addresses the deficiencies on the manual discharge summary. Electronic discharge is most effective communication across primary and secondary health care clinics. Electronic discharge is an integral part of the medical records and improves quality of care and outcomes. Electronic discharge allows health care providers to review patient’s current situation and what is required implementation (Craig, Callen, Marks, Saddik, & Bramley, 2007).

Many studies found that the role of electronic discharge summaries in bridging the relation between primary and secondary health care, improving continuity and ultimately health care, and patient outcomes. Benefits of electronic discharge summaries are providing cost effective, timely, more legible, simple, accurate, which increases information patients’ safety and ultimately improves the quality of care (Craig et al., 2007).
Electronic discharge summaries save handling, operations, equipment and social costs. According to Craig et al. “The electronic discharge summary provides a number of benefits to both doctors and patient by facilitating improvements in continuity of care and the quality of patient outcomes by reducing any fragmentation existent between sectors” (2007, P. 33).

**Purposes and Advantages of Discharge Instructions**

Researchers have found many benefits and purposes of discharge instructions among patients and their families, health care professional, and health care services. According to Taylor and Cameron (2000), the primary purpose and advantages of discharge instruction, are the protection of the patient (health outcomes) and medical staff (malpractice liability), improvement of patient and medical staffs’ education, improvement in quality assurance, and reinforcement of verbal instructions. Also, good quality information for patients can help prevent diseases, promote self-care, support treatment choices, and improve clinical care (Coulter et al., 1998).

In addition, there are a variety of purposes for the patient report that assisting the client such as: helping the patient understand the wrong course of self-care and assist in establishing proper self-care, understanding possible and/or likely prognosis, when and how to initiate additional consultations, understanding the treatment process and outcomes of treatment, learning about available support services, and providing reassurance and help the patient coping with illness, treatment and prognosis. Further, the patient report can aid the client in understanding how to seek assistance for on-going
concerns by identifying further information and the best health care providers to address the patient’s on-going needs (Coulter et al., 1998).

From the health policy perspective, health information is designed for the public to improve the health care system in a number of ways. These educational approaches are promoting better health and preventing illness, improving self-care, improving treatment decisions, and improving the effectiveness of clinical care (Coulter et al., 1998). Additionally, patients may make medical errors during transfer from the hospital to home. A complete discharge summary can play an important role in decreasing the rate of medical errors and readmission (Legault et al., 2012).

The transition of health care from the hospital to home without discharge summaries can put patients at high risk of having adverse drug events, readmission, or death (Gandara et al., 2009).

Preventable or ameliorable adverse events have been reported to occur in 12% of patients in the period immediately following hospital discharge. A potential contributor to this is the inadequate transfer of clinical information at hospital discharge. The discharge summary comprises a vital component of the information transfer between the inpatient and outpatient settings. Unfortunately, discharge summaries are often unavailable at the time of follow-up care and often lack important content (O’Leary et al., 2009, P.213).

The association between absence of discharge summaries and readmission is strong. Van Walraven et al. determined the relationship between delivery hospital discharge summaries and the risk of hospital readmission. They found that 27.0% of patients who did not receive discharge summary were readmitted to the hospital within the first three months after discharge (2002).
Hospital Readmission

Hospital readmission is a very costly process for both human resources and finances. Studies found that patient who get information and detailed post-discharge form hospital are 30% less likely to be readmitted to the hospital or visit emergency room compared to patient who did not get any post-discharge information. Another study found that 12% of patients develop new or worse symptoms after discharge from hospital. Also, one study found that adverse drug events can develop in 23-49% of cases after discharge (Mahrous, 2013).

The Agency for HealthCare Research and Quality (AHRQ) found that nearly 20% of patients within three weeks after discharge experienced adverse events, and 75% of these events could have been prevented. Also, medical complications, infections, procedural complication, and adverse drug events are most common complications after discharge from the hospital (2014).

The AHRQ in the United State is working to reduce the rate of the readmission through project started in 2012 among the Medicaid population. Reducing readmission is a national priority for patients, providers, and policymakers seeking to achieve. The main objective of the reducing readmission project is to improve health and enhance care with low cost. In general, hospital readmission is very costly, frequent, and highly variable. In the past several years, the Centers for Medicare and Medicaid Services (CMS) and the Center for Medicare and Medicaid Innovation (CMMI) have created incentives, instituted penalties, and provided technical assistance to providers and communities to improve health care and reduce hospital readmission. They are some of the mostly used tools and
best practices for reducing hospital readmission (2014). AHRQ (2013) reduces the readmission by identifying evidence-based strategies and adapting the best transitional care needs. The AHRQ was developed over 2-year period using quality improvement. The AHRQ updated the CMS Discharge Planning Conditions of Participation and applied it to Medicaid patients. This included pushing hospitals to improve transitions in care to reduce the rate of readmission for all.

The AHRQ (2013) investigated by obtaining qualitative insights in to know why readmission occurs. They found that a 46-year-old-Spanish-speaking patient was hospitalized six times and visited emergency room three times in one year. The AHRQ found through interview “The patient received instruction in English, and her 12-year-old daughter was asked to translate. The patient had poor understanding of prescription instructions” (P.14). The main finding from this situation is there is a lack of confirmation that patient understands the educational materials.

Customized written information should be given to the patient before discharge from the hospital and it should be written at an elementary reading level. Also, this information should be tailored individually and be written at the third-grade reading level. The language used in the written information should be in the patient’s preferred language and include which symptoms to watch for, what to do, and whom to call. Regarding medication, written information should explain what to take, when, why, and how, as well as what side effect to look for. Also, it should explain what to do and who to call if side effects develop. In addition, physicians should discuss with patients about who gets medication and identify any financial barriers with patients. Also, discharge
summaries should be complete at the time of discharge (Agency for Healthcare Research and Quality, 2014).

The AHRQ stated that written information should be written at a third or fourth grade reading level, use patients’ preferred language, include the reason for admission to the hospital, including plain language the list of medications, dosage, and times to take them, include follow-up appointments with office contact information, and include the symptoms to watch for, what to do about them, and whom to contact if symptom arise (Agency for Healthcare Research and Quality, 2014).

Social workers and discharge planners at the Virginia Commonwealth University (VCH) Health System were working to improve patient education at the time of discharge from hospital. They found that written materials should be provided at the basic learning level. They found that eighth grade patient only have a third grade reading level and a high school patient cannot understand specific clinical and medication instruction. They found that some patients are unaware of why they are taking certain medications, when they should take it, what side effects to look for, and what food to avoid when taking the medication. According to the American Medical Associated “a good way to address Medicaid patients with limited reading comprehensive in a nonthreatening manner is to ask, “How comfortable are you with your reading skills?” (Agency for Healthcare Research and Quality, 2014, P.44). Van Walraven et al. said that “When the discharge summary dissemination was added to this model, we found a trend toward decreased risk of readmission within three months if patients were seen in follow-up by a physician who had received the discharge summary” (2002, P.189).
Protection of the patients and medical staff is a one of the main purposes of the discharge summary. According to Taylor and Cameron (2000), the primary purpose of the discharge instruction is to improve the communication between patient and physician. Also, discharge instruction plays a major role in assisting the patient with ongoing disease management and protecting them against any complications and confusion resulting from any ignorance. On the other hand, comprehensive discharge instructions may help protect medical staff from fault and malpractice litigations. Comprehensive discharge instruction addresses all relevant aspects of ongoing condition management. It is important for the hospital to keep the copy of the discharge instruction receipt on the medical records. Also, the patient should sign an acknowledgment of their receipt of the information. All of these processes can help protect patients and medical staff from litigation (Taylor & Cameron, 2000). Also, Perera et al. suggested that discharge summaries should be saved and recorded for future reference because it can help improve health care services and patient care (2012).

Giving patients’ information about their medical condition and treatment is a part of the ethical principle of patient autonomy and promotes greater clinical effectiveness outcomes and efficient use of resources. Also, it increases the likelihood of positive benefits between health communication and health care outcomes for the patient (Coulter et al., 1998).

Patient recovery from disease is often incomplete after discharge and need extra care at home. Most patients require to ongoing management and evaluation after discharge. Changes in care environments lead to negative effects, especially to elderly
patients and patients with multiple medical issues. Several studies have identified that errors commonly occur around the time of discharge from the hospital. One study found that 1 in 5 patients experience an adverse event, such as injury. Also, studies found that approximately 62% of adverse events could be either ameliorated or prevented. In addition, 11% of patients had an adverse event and 18% of events are attributable to the discharge process (Halasyamani et al., 2006).

Patient failure to understand discharge information is one of the top eight patient dissatisfies in the health care services (Mahrous, 2013). Studies found that patients not understanding discharge medications, dietary restrictions, and lifestyle changes can lead to an ineffective care transition from the hospital to home or other setting (Halasyamani et al., 2006).

One study reviewed 94 studies about transitions of older people from the hospital to home from 1985 to 2000. This study found that there is a correlation between transitions of older people and high rates of preventable poor post discharge outcomes. Examples include multiple comorbid conditions, functional deficits, cognitive impairment, emotional problems, and poor general health behaviors. This study found that poor discharge summaries were associated with negative outcomes in older patients which include breakdowns in communication between health care providers and across health care agencies, inadequate patient education, poor continuity of health care, and limited access to services (Naylor et al., 2004). A study found that 22 percent of patients suffered a negative impact on their health because an absence or delay in receiving a written discharge summary (Craig et al., 2007).
Discharge instructions contain valuable educational material for patients to manage present and future illness, especially for chronic health conditions such as asthma. Also, comprehensive discharge instructions can be a useful learning exercise for the medical staff. Through the discharge instruction process, medical workers become cognizant of individual issues, including natural history, potential complications, and follow-up requirements of the diseases they treat. All of these processes can improve the education among medical staff and patients (Taylor & Cameron, 2000).

Occasionally healthcare providers may lack information and knowledge regarding certain treatment options and their effects. The solution is to give patients printed educational material for their information and to use in discussion with health care providers (Coulter et al., 1998).

Comprehensive discharge instructions in the hospital can be used in quality assurance activities to assess the quality of care provided. A copy of patient discharge instructions on the medical record can be examined to assess the general quality of care, assess the services provided to the patient, and can be used to compare treatment methods provided with other options available. All of these can work to improve the quality of the hospital and the medical care provided (Taylor & Cameron, 2000).

Discharge instruction should be seen as a complete process, not a replacement for verbal instruction. Verbal instruction between health care providers and the patient is an essential and critical component between patient and doctor and helps the doctor to ensure that the patient completely understands the instructions while also providing the patient an opportunity to ask questions (Taylor & Cameron, 2000).
Discharge instruction has some psychological effects as well. Several studies found that preoperative information given to the patient could improve the patient’s sense of well-being after surgery. The studies found that well-informed patients tend to be less anxious, more quickly returned to mobility, and more satisfied with the health care they received in the hospital (Lithner & Zilling, 2000).

Janis (2013) investigated the relationship between discharge information and stress levels among post-surgery patients. He found that patients are who were given release information have less negative reactions compared to patients who did not receive any information. Sheard and Garrud investigated clinical outcomes between two different groups of patients (2006), and they found that written informational materials have positive impacts on a patient’s health outcomes. They found that patients who received written discharge information materials have less anxiety, less pain, report feeling better, and have increased satisfaction compared to patients who did not receive discharge information. Also, they found less anxiety among parents who received a leaflet about their child’s health condition.

Coulter et al. found that the anxiety, psychological distress, and dissatisfaction level among inpatients who received any information about their health and treatment was low. Also, they found that depression and anxiety levels decreased among breast cancer patients who were provided with information about breast cancer (1998).

Many forces are pushing hospital in the United State to improve their discharge process to reduce the rate of readmission and emergency department visits after discharge. A group of researchers from Boston University Medical Center developed a
set of activities and materials to improve the discharge quality, which is called the Re-Engineered Discharge (RED). Research found that RED programs have an effectively at reduce the rate of hospital readmission and post- hospital emergency room visits. The Agency for Health Research and Quality (AHRQ) in the United States collaborated with Boston University Medical Center (BUMC) to develop the RED project. RED is supported by funding from the National Heart, Lung, and Blood Institute (NHLBI) and from AHRQ (Agency of Healthcare Research and Quality, 2013).

Re-Engineered Discharge (RED) contains 12 steps. They are;

1. Ascertain need for and obtain language assistance, 2. Make appointments for follow care, 3. Plan for the follow-up of results from tests or labs that are pending at discharge, 4. Organize post discharge outpatient services and medical equipment, 5. Identify the correct medicines and a plan for the patient to obtain them, 6. Reconcile the discharge plan with national guidelines, 7. Teach a written discharge plan the patient can understand, 8. Educate the patient about his or her diagnosis and medicines, 9. Review with the patient what to do if a problem arises, 10. Assess the degree of the patient’s understanding of the discharge plan, 11. Expedite transmission of the discharge summary to clinicians accepting care of the patient, 12. Provide telephone reinforcement of the discharge plan (Agency of Healthcare Research and Quality, 2013, P. 1).

The hospital discharge is a difficult and complex process and needs communication among the inpatient care teams, outpatient care teams, the patient, the patient’s caregivers, and community services. Hospitals in the United States have many opportunities to improve the hospital discharge process. There are some contributing factors which can affect the discharge process, including delay of transfer of discharge summary from inpatient physician to primary care doctor. This delay leads to the primary doctors being unaware of tests and procedures that were done during hospitalization. Also, this leads to primary doctors being unaware about what conditions still need
attention. In addition, some test results can be incomplete upon discharge of the patient. This means that results will not be included in the discharge summary, and the primary doctor will not receive the results. Also, some patients did not fully understand their health condition and do not realize that he/she needs to make an appointment after discharge from the hospital for procedures or tests result. Similarity patients could be unable to make an appointment because lack of transportation or unavailability of doctors. Studies found that more than one to three patients needed to more care after leaving the hospital, such as lab test and failed to get this appointment (Agency of Healthcare Research and Quality, 2013).

Also, one of the most contributing factors is patients’ confusion about medication. Some patient are unsure about which medicine to take after leaving the hospital, especially when the patient was admitted to the hospital with medication. Inadequate patient education about which medication to take and which one to discontinue leads to patient failure take the needed medication taking, duplicate medication, or leads to adverse drug events (Agency of Healthcare Research and Quality, 2013).

Many forces are pushing hospitals to improve the discharge process to prevent any adverse events. One such force is the National Quality Organization. This organization set standards to address deficiencies in discharge planning. The National Quality Forum (NQF) Safe Practice-15 set the key process for discharge planning especially for community health care providers. Quality Improvement Organizations’ 9th Scope of Work is a second force derived from the Quality Improvement Organization.
The goal of this organization is to help hospitals improve their discharge process (Agency of Healthcare Research and Quality, 2013).

The third force is the people who want to reduce the prospective of the readmission payment. In its 2007 report to Congress, the Medicare Payment Advisory Commission (MedPAC) identified a potential savings of $12 billion per year by reducing preventable readmissions. In its June 2008 report, MedPAC recommended that Medicare adopt a bundled payment approach. This means paying a single provider entity (comprising a hospital and its affiliated physicians) a fixed amount to cover the costs of providing the full range of Medicare covered services delivered during an episode of care (e.g., the hospital stay plus 30 days after discharge). In April 2008, the Centers for Medicare and Medicaid Services (CMS) sought public comment on two proposals to revise hospital payments to provide hospitals with financial incentives to reduce avoidable readmissions. The first is to reduce payments for preventable readmissions. The second is to incorporate readmission rates into the calculation of performance-based payments in the value-based performance plan. The Hospital Readmissions Reduction Program included in the Patient Protection and Affordable Care Act of 2010 states that as of October 1, 2012, Medicare will reduce payments to hospitals with excess readmission rates for heart attacks, heart failure, and pneumonia (Agency of Healthcare Research and Quality, 2013).

A study found that patients who received the RED have a 30 percent lower rate of hospital utilization within 39 days after discharge compared to patients who received the
usual health care. The cost of the RED patient is an average of $412 (33.9%) less than the patient who did not received RED (Agency of Healthcare Research and Quality, 2013).

Why should hospitals in the United States use Re-Engineered Discharge (RED) projects? Actually, the RED project improves clinical outcomes by decreasing the rate of 30-day readmission by 25 percent and decreasing the rate of emergency room (ER) visits from 24 percent to 16 percent. Also, the RED program improves patient readiness for the discharge summary and improves primary health care provider follow-up (Agency of Healthcare Research and Quality, 2013).

The second reason why hospitals in the United States should use the RED project is because this project meets safety standards and improves documentation. In general, the RED project is accepted by some organizations in the healthcare including NQF Safe Practice and The Leapfrog Group for Patient Safety, and CMS. Also, the RED project meets Joint Commission Standards. In addition, the RED project functions a document for discharge preparation and helps patients understand the discharge plan (Agency of Healthcare Research and Quality, 2013).

The third reason why hospital in the United State should use RED because the RED program improves return on investment by reducing the cost of healthcare to $412 per patient. The fourth reason RED should be used in the hospital is because the RED program improve patient centeredness and hospital’s community image through improving patient and family satisfaction and improving high quality facilities in the hospital (Agency of Healthcare Research and Quality, 2013).
One component of the RED project identifies the correct medicines and makes a plan for the patient to obtain and take them. Through this project, health care providers should review all medicine lists with inpatient and review the patient’s reports of what they are taking. Also, health care providers should explain what medicines to take and emphasize any changes in the regimen. In addition, they should review the purpose, how to take, and side effects for each medications with patients. Also, they should assess patient’s concerns about the medicine plan (Agency of Healthcare Research and Quality, 2013).

The RED project educates the patient about his or her medical diagnosis through researching the patient’s medical history, current status, and communicates with the inpatient team regarding post discharge. In addition, the RED project meets with the patients, family, or other caregivers educate them and prepare for discharge (Agency of Healthcare Research and Quality, 2013).

RED assess the degree of patient understanding through use of the teach-back technique. The teach-back technique is when healthcare providers ask patient to explain information in their own words. Also, RED project delivers the discharge summary within 24 hours of discharge. In addition, RED calls the patient after 3 days to reinforce the discharge plan and answer the patient questions (Agency of Healthcare Research and Quality, 2013).
Patient Safety

Discharge from the hospital is a major source of risks to patients (Walston, Al-Omar, & Al-Mutari, 2010). During transition of care from hospital to home patient safety become jeopardized (Coleman & Berenson, 2004). Patient safety as a public concern that has received attention in the health care field, especially after the U.S. Institute of Medicine release two reports regarding patient safety. The first of these, “To Err Is Human,” reviewed the literature on adverse events or injuries from medical care. After discharge form the hospital, patients may be at risk to injuries because they may still have functional impairments or because discontinuities of treatment. In some situation, patients may be leave the hospitals “quicker and sicker” (Forster, Murff, Peterson, Gandhi, & Bates, 2003). Also, Walston et al. defined patient safety as freedom from any injuries during their stay in hospital for health care (2010).

Forster et al., 2003 investigated 400 consecutive patients who were discharged from hospital to home to determine the incidence and severity of adverse events affecting patients after discharge from the hospital to home. They defined “adverse outcomes” as any new or worsening symptoms and unanticipated visits to health care for tests or treatments. “An adverse event” refers to any injuries resulting from medical management rather than the underlying diseases. “A preventable adverse event” refers to any injuries resulting of an error or a system design flow. “An ameliorable adverse event” refers to any injuries whose severity can be reduced by actions or procedures.

They found that one in five patients experienced negative adverse events during transition from the hospital to home. These events ranged from serious laboratory
abnormalities to permanent disabilities. They found that 76 of 400 patients had adverse
events after discharge (19%). In addition, 23 patients had preventable adverse events
(6%). Also, 24 patients had ameliorable adverse events (6%). Regarding injuries, they
found that 3% of patients had injuries related to serious laboratory abnormalities and 17%
of patients had injuries related to procedures after discharge. Also, they found that 65%
of patients had symptoms, 30% had symptoms associated with a nonpermanent disability,
and 3% had permanent disabilities. In addition, adverse drug events were the most
common injuries by 66% (Forster et al., 2003). Another study examined patients after 30
days of discharge and they found that between 12 to 25% of patients were complications
and were required to return to the hospital in the intensive care unit (Coleman &
Berenson, 2004).

According to patients’ safety in health care setting, Cook, Render, and Woods
determined that

The patient safety movement includes a wide variety of approaches and views
about how to characterize patient safety, study failure and success, and improve
safety. Ultimately, all these approaches make reference to the nature of technical
work of practitioners at the “sharp end” in the complex, rapidly changing, and
intrinsically hazardous world of health care. It is clear that a major activity of
technical workers (physicians, nurses, technicians, pharmacists, and others) is
coping with complexity and, in particular, coping with the gaps that complexity
spawns. Exploration of gaps and the way practitioners anticipate, detect, and
bridge them is a fruitful means of pursuing robust improvements in patient safety

Gaps are discontinuities in patient care. They may appear in different way such as
losses of information or momentum or interruptions in delivery of care. For example, loss
of transfer information from one facility to another as when a patient is discharged from the hospital (Cook et al., 2000).

Medical Errors

Medical errors are one of the nation’s leading causes of death and injury in the United States. Institute of Medicine reported that 44,000 to 998,000 people yearly die as a result of medical errors. The Agency for Healthcare Research and Quality (AHRQ) reported, “This means that more people die from medical errors than from motor vehicle accidents, breast cancer, or AIDS” (2000, P.1). Medical errors can happen when medical care does not work out. In addition, medical errors can occur in hospitals or the patient’s home. Also, medical errors can happen during a medical procedure or during daily routines. According to the Agency for Health research and Quality, medical errors can happen when physicians and patients have poor communication about a patient’s health condition. Studies found that patients who are uniformed about their health status and treatment plan lead to patients who are unaware of the physician’s treatment plan. Also, researchers found that patients who are involved and informed about their health care tend to have better health and positive outcomes (2000).

“The single most important way you can help to prevent errors is to be an active member of your health care team” (Agency for Healthcare Research and Quality, 2000, P.1). The Agency for Health research and Quality asked patient to ask their physician for written information about their medical prescription and include medication use instructions and side effects. Studies found that written information about medications
can help patients to be aware about side effects. Also, this information can be given to the doctors during transitional care (Agency for Healthcare Research and Quality, 2000).

During the hospital stay, the Agency for Health research and Quality asked patients when they are being discharged from the hospital to ask their physician to explain the treatment plan and what to do at home. This included information about medication, finding results, and resuming regular activities. The Agency for Health Research and Quality found that a lot of written information is not good for patient. The agency found that it is good for the patient to know some information about test results and conditions, and treatment better than know too much information. Studies found that most of the physicians during discharge think that patient understand more than they really do about their health condition and what they should or should not do when they return home (Agency for Healthcare Research and Quality, 2000).

In the kingdom of Saudi Arabia, the rate of the medical errors in the obstetric department were 27% and 17% in the general surgery. In these days, Saudi Arabia is reducing the adverse events of medical errors through encouraging medical error reporting and identifying reasons for medical error. Also, Saudi Arabia working to use previous errors as an educational exercise and quality improvement tools, but 59.8% of errors kept confidential to avoid punishments. Alsafi et al, investigated to identify the factors that hinder or promote physicians in Saudi Arabia report medical errors. Alsafi and colleagues found that 3.3% of the medical errors in Saudi Arabia might have lead patient deaths. Alsafi and colleagues found through their study 33.7% of physicians
agree with “I do not want to lose my good relationship with my colleagues” and 16.8% of them agree with “I might be reported by my colleague in turn” (Alsafi et al., 2011).

The incidence and prevalence of medication errors in Saudi Arabia is unknown. Some studies reported that 35% of medication in Saudi Arabia given without any prescription. Also, one study reported that the incidence of medication errors in Saudi Arabia was from 8 to 56 per 100 medication orders in inpatients (Aljadhey et al., 2014).

Medication safety as patient safety is a global concern in the health care system. Medication safety in Saudi Arabia has not been developed and explored yet. Aljadhey and colleagues (2014) investigated the perspectives of health care providers about medication safety practices. They found that lack the communication between health care providers and professionals and patients lead to lack of medication safety in Saudi Arabia.

The factors that contribute medication errors are lack of communication between healthcare providers. Aljadhey et al. found that lack communication between health care providers lead to medication errors. They said that “The patient comes to me. I tell him one thing. He or she goes to the nurse, and she tells him another thing, and the pharmacist tells him something else. Then the patient is confused, so, we need to have a standardized communication tool” (2014, P. 329).

Another factor can contribute in the medication errors in hospital in Saudi Arabia is a lack of communication between healthcare providers and patients. Aljadhey et al. found that lack communication between physicians and patients play an important role
increasing the rate of medication errors in Saudi Arabia. The pharmacist said that “There is no time for the community pharmacist to give counseling to patients, and ever if he wants to, there is no private area for counseling” (2014, P. 329).

Social factors in Saudi Arabia play as contributing factors, female patients cannot talk freely with males and vice via (Aljadhey et al., 2014). Aljadhey and colleagues (2014) found that communication between health care providers and patients is critical in clinical practice. A study found that few patients in Saudi Arabia discuss with health care providers. A systematic review in Saudi Arabia found that present difficulties in communication occur among health care providers and among patients at hospital discharge. A study found that 725 of the physicians have written medication information with low quality prescription.

Disadvantages of Discharge Instructions

Patients should completely understand the discharge instructions and have a motivation for compliance. In general, no particular version of written and verbal discharge instructions guarantees that patients will comply with recommendations. Patient discharge information is critical instruction to improving clinical outcomes and reducing hospital readmission, but is not fail-safe (Polster, 2015). Studies have found that 35% of patients who read written information regarding anesthesia become worried about, particularly adverse complications as compared to patients who did not know anything. Also, patients reading the educational materials and not understanding them can lead to adverse effects for patients’ health behaviors and outcomes. Also, poor communication of information or provision of misinformation can create the same
negative consequences (Coulter et al., 1998). Some studies have found that discharge instructions fail to improve the health communication and patient outcomes, therefore failing in their primary purpose (Taylor & Cameron, 2000). The following are some disadvantages of discharge instructions:

Some written information does not include enough detail about the patients’ current conditions, treatments, procedures, and post treatment instructions. Also, poor quality information provided too late, and information not addressing the clients’ concerns can fail to improve the primary purpose of patient informational materials (Coulter et al., 1998).

Patients should understand the discharge instructions adequately to participate effectively in the treatment of their health conditions. Also, the physician should realize that some patients have low or limited literacy. All of these issues can effect patients and can be a barrier to providing optimum health care. If the patients cannot read them, the discharge instructions will not be used by the patients (Taylor & Cameron, 2000).

Discharge instructions should be written at the reading comprehension level that the majority of patients can read and understand. Studies have found that the average reading level that is required to comprehend discharge instructions ranges from grade 6 to 14 and 45 to 50% of patients in the emergency department were unable to understand the release instructions (Taylor & Cameron, 2000).

Also, older people on average tend to have poorer health literacy than younger individuals (Taylor & Cameron, 2000). As a result, many authors make certain
suggestions in order to provide accessible and understandable discharge instructions to
patients, which include simplification of discharge teaching in order to match patients’
literacy and instruction comprehension. Also, simply rephrasing may work to improve
patients’ understanding of their discharge directions. For example, in explaining the
dosage of a medication, the discharge instructions should be stated in a clearly
comprehensible fashion such as “X times a day” instead of “every X hours.” Using
cartoon or graphic instructions may work to improve comprehension. Some studies found
that patients were more likely to read and comprehend written instruction with pictures,
rather than without any pictures (Taylor & Cameron, 2000).

In general, preparation of original discharge documents takes significant time to
complete. In the discharge instructions section, the completion of pre- formatted
instructions may take many minutes to make headings, informational material, and check
boxes. These process may become shortened if completed with the assistance of
computer software or programs. Some programs allow instructions to be generated by
typing in keywords which expand the text. For example, typing an International
Classification of Diseases diagnostic code will create all directions. Also, typing drug
names will prompt the computer program to create all the information and instructions
regarding the selected drugs. All of these can help to save time and provide efficient
discharge directions (Taylor & Cameron, 2000).

One of the significant problems regarding written discharge instructions is a
deficit in personalized content information. Previous studies found that 78% of patients
received discharge information with some informational gaps on their discharge
Discharge instructions should include diagnosis, treatments, medications, home-care, and follow-up instructions. Massive deficits on the discharge instructions leads to increasing the risk of adverse events, and increasing the reutilization of resources, including repeat hospital visits and hospitalization. To address these kind of problems, improved discharge information with greater details and specificity are needed (Engel et al., 2012).

Desirable Features of Discharge Instruction

The use of standard content improves the quality of discharge summaries (O'Leary et al., 2009). Some essential features should be included in the patient discharge instruction. These include: patient name, physician name, the purpose of discharge instruction, diagnosis/expected course, potential complications, patient instructions, medications, and follow-up instructions. All of these features are desirable, depending on the patient’s and medicolegal requirements. Also, some features do not need to be addressed in some cases (Taylor & Cameron, 2000).

The patient’s name should be placed at the top of the page to be more relevant to the patient. Also, the name of the physician should be provided on the instruction sheet to improve the quality assurance. The primary purpose of the discharge instruction should also be included. The language used in the discharge instruction should be clear and simple to maximize readability and reliability. Also, pictures and cartoons work to help the patients to understand and work to catch patient attention. Also, all information should be presented in short sentences. Long sentences and paragraphs should be avoided on written discharge instructions. The dosage of discharge medication should be stated
clearly in terms of “number of times a day,” not hours (Taylor & Cameron, 2000). According to Taylor and Cameron (2000) “This recommendation has important quality assurance implications, and consideration should give to the use of discharge instructions as an emergency department performance indicator” (P. 89).

Some information regarding current illness should be included in the patient's discharge instruction sheets. The information sheet has to include diagnosis, ordinary course related to the disease, and potential complications. All of these features work to provide the patients with realistic expectations associated with the natural course of the illness. Also, these help to reduce stress, promote management skills, maintain compliance with treatment, assist the patients with early recognition of complications, and minimize patient’s discontent (Taylor & Cameron, 2000). According to Long, the location, format, and description of diagnosis or procedures should be placed in discharge summaries with high visibility to be more usable (2005).

Non-drug guidelines should be provided in the discharge instructions. These instructions work to improve patient’s self-management skills related to the illness and diseases. Also, medication prescribed should be provided on the discharge instructions which includes the name of the drugs, dose, frequency, purpose, and potential complications (Taylor & Cameron, 2000).

The name and signature of the person who provided the discharge instructions to the patients should be provided on the discharge instruction sheets to improve medicolegal and quality assurance. According to Taylor and Cameron (2000), “a signed statement of receipt and understanding from the patient or guardian should be included”
(P. 89). This feature helps to promote clarification and protect the physicians through providing documentation of proof of receipt and understanding. Also, the date and the time of the receipt of the instructions should be provided in the discharge instruction sheets (Taylor & Cameron, 2000).

Researchers recommended that hospitals should use structures and pre-formed discharge sheet in the all emergency departments. Also, developmental computer software should be created to facilitate the generation of discharge instructions. Also, “small” words should be used and big words should be avoided. For example, use “doctor” versus “physician.” Health care departments should provide policies which work to provide best practice in the communication between patients and health care providers. For example, an automatic check system should be used to make sure that discharge instruction is given to all patients (Taylor & Cameron, 2000). Taylor and Cameron (2000) recommended that pre-formatted instruction sheets should be uniform across the health region, country, state, or nation. Also, uniform discharge instructions work to provide familiar features in all departments, and improve the quality assurance activities (Taylor & Cameron, 2000). Healthcare agencies should provide specific computer software to generate discharge instructions in a short time and develop all the required elements. Also, this software should be able to send instruction directly to the medical report department (Taylor & Cameron, 2000).

Factors Influencing the Discharge Process

The transition of health care from hospital to the home is a critical and dangerous period for most patients. Health care providers should improve the coordination of care
between the health care setting and the “self” care or home setting. Some factors that can influence the discharge process include poor information transmission processes, inadequate training of medical staff, and inappropriate/inadequate time of/for patient education. All of these issues can prevent patients from having understood and internalized discharge information. Also, nervousness, home distractions, and poor health literacy can affect the discharge process and self-care outcomes (Long, 2005). Further, language barriers in settings where bi- or multilingualism is called for are often barriers to appropriate self-care upon discharge (Perera et al., 2012). Also, preexisting, low levels of health literacy has a negative influence on the discharge process (Wei & Camargo, 2000).

Educating patients about prescription medications is an essential part of discharge information. Many programs have been educating patients about prescriptions through written information sheets (Morris & Halperin, 1979). The Drug Regulation Reform Act of 1978 has enhanced drug labeling and Patient Package Inserts, (PPIs) to educate patients about a drug’s risks, potential benefits, and overall medication dosage and consumption instructions. PPIs have been found to develop self-medication skills and aid in the detection of side effects among patients. In addition, PPIs helped patients when they changed drugs, improved patients’ knowledge about food and drug interaction, and increased patient’s awareness. (Morris & Halperin, 1979).

Morris and Halperin (1979) evaluated the effectiveness of written drug information. They were focused on the various forms of drug education including stickers, labels, multiple page brochures, and pamphlets. They found that written
instructions can improve patients’ critical information and help patients to understand. Also, they found that some patients prematurely discontinue taking treatment drugs because they do not know the importance of continuing treatment. With long-term therapy, researchers’ found that effective communication is very important to patients. Researchers noted regarding drug education, “Numerous studies have demonstrated that written information for the patients can be a useful aspect of a program to improve patients’ knowledge about their therapy” (Morris & Halperin, 1979, P. 51). Also, many of researchers suggested that verbal and written information regarding medication lists should be presented to patients. Studies found that written discharge drug instructions enhanced patient’s knowledge regarding drug side effects and special precautions (Morris & Halperin, 1979).

Most patients go home with medications. In recent times there has been a major developing awareness and realization of the need for increasing patients’ knowledge concerning their medications at the time of discharge from the hospital. Inadequate education for patients about discharge medication can lead to an unsafe and inefficient administration. Holloway (1996) said that a lack of patient education and information given regarding medication, “resulted in patients being discharged with inadequate preparation, with insufficient knowledge and lack of understanding, [resulting in] unsafe and ineffective self-administration of medicine in the community….” (P.1169). For the patients admitted to the hospital for short-term treatment, education about medication is very necessary as much of their recovery will be self-monitored. Education about
medication should involve the timing, dosage, and possible side-effects for each medication (Holloway, 1996).

Upon discharge from the hospital, the patient should be able to display a full understanding of his/her illness and medications. In the hospital, the patient often receives little or no instruction about medications, which can lead to the patient being readmitted to the hospital because they lack the skills to manage their drugs. One study showed that some hospitals were giving patients medication information and self-care instructions at one time shortly before discharge, and that it helped patients to understand both medication and self-care procedures (Holloway, 1996).

The Self-Medication Program developed by Bird 1988 is an educational program that works to encourage patients to take responsibility for their medications. This program is improving patient’s knowledge regarding their drugs. Also, it enhances the quality of health education and communication between health care providers and patients (Holloway, 1996). The Royal College of Nursing’s Department of Nursing Policy and Practice, in the UK noted that,

Each year many admissions to hospital medical wards are the result of inappropriate or ill-understood drug taking. [It should] Therefore, be the role of the nurse in conjunction with that of the pharmacist to educate the patient in a safe and efficient administration of his medication (Holloway, 1996, P. 1171).

Holloway (1996) investigated patients’ knowledge regarding their medication during discharge from the hospital. He used the Jane E Mezza note medication checklist design to determine the patient’s knowledge. Twenty patients participated in this study. Nineteen patients from among the participants were already taking medication before
being admitted to the hospital. Twelve of them could not name at least one of the drugs they were taking. Eighteen of them did not know the dosage for their medications. Just one of them knew the side effects of only one drug he/she was taking.

Horwitz et al., 2013 defined timeliness, transmission, and content of discharge summaries as improvement factors. These factors can improve the quality of discharge summaries. They defined timeliness of discharge summaries as days between patient discharge date and dictation date. Transmission of discharge summaries is defined as sending the discharge summaries by fax or email to an outside physician who is scheduled to follow up with the patient post discharge from hospital. The content of discharge summaries means the information on it, such as diagnosis, laboratory results and medication lists. All of these factors can improve aspects of discharge summary quality among post discharge patients.

**Quality of Patient Information Materials**

In 1998, Coulter et al. were working hard to raise the quality of patient information materials by evaluating discharge instructions such as DISCERN and SAM. DISCERN is an assessment instrument designed to evaluate the reliability and quality of written health information. SAM is a tool that is designed to assess the suitability of written health information under six main headings of content and cultural appropriateness. Written health information can become high quality when the information involved fulfills the requirements for both patients and health care professionals and when it increases patients’ knowledge and satisfaction (Sheard & Garrud, 2006).
In the US, the American Medical Association Standards (AMA) serve as a standard for quality of discharge summaries in health care services. This standard contains six essential components. These components dictate that discharge information should be based on essential critical elements that include psychological, social, and a functional needs assessment. Also, discharge information should be prepared comprehensively by an interdisciplinary team. In addition, discharge information should be assessed and planned early. Discharge information should be arranged before discharge to provide easy access for patient follow-up and, thus, seamless health care following discharge. Patients and caregivers should be able to understand the health care instructions and procedures. Finally, all health professionals, caregivers, and the patients should be informationally tethered together upon discharge (Clark et al., 2005).

The Joint Commission Standards (JCS)

The Joint Commission on Accreditation of Healthcare Organizations, (JCAHO) produces the Joint Commission Standards, (JCS). JCS are designed to assure quality control in the development and delivery of discharge summaries. JCS for patient discharge instruction in the health care system includes standards for assessing patients in the following criteria, such as “An assessment of the patients’ learning needs, abilities, preferences, and readiness which considers culture, religion, emotional barriers, desire, motivation, physical and cognitive limitations, language barriers and financial implications (for a patient)” (Clark et al., 2005, P. 57). Also, educating patients in various additional wellness areas that include: how to use medication and medical equipment, drug and food interaction, and nutrition education and counseling. JCAHO further
provides community resources designed to help patients know when and how to obtain medical treatment. Regarding ongoing health issues, JCAHO elucidates health care needs, provides information and skills to carry them out, and educates patients about how to maintain good hygiene (Clark et al., 2005).

Also, JCAHO educates patients as an interactive process. According to JCAHO, discharge instruction should be provided to the patients and/or family. They stress that hospital plans, on-going health care support, and the coordination of activities and resources should be provided to the patient and/or family as an educational process (Clark et al., 2005).

The Joint Commission for Accreditation of Healthcare Organizations (JCAHO) established a list of elements that should be included in each discharge summary. It included the reason for hospitalization, significant findings and results, procedures and care performed, treatment and services provided, the patient’s condition at discharge, and information provided to the patient or family. Regarding the medication, JCAHO advocates that discharge summaries should include an accurate list of all medications a patient is taking with name, dosage, frequency, and route (Gandara et al., 2009). Also, JCAHO requires the development and implementation of a process to collect, review, reconcile, and document prescribed medications at all points of health care transition, including hospital discharge (Halasyamani et al., 2006).

The Joint Commission Standards mandates that discharge summaries be presented to all patients within 30 days of hospital discharge. In addition, all discharge summaries must include reason of hospitalization, procedure performed, care and treatment
provided, discharge condition, information provided to patient/family, and attending physician signature. Also, The Joint Commission Standards advocates a number of specific components must be present on the discharge summary, included discharge medications, follow-up instructions, and diet. All of these to support the patient through providing safety environment during care transition (Kind, Thorpe, Sattin, Walz, & Smith, 2012). The important thing in tailoring discharge information is to find out what information the patients need and want (Tierney, Worth, & Watson, 2000).

**Re-Engineered Discharge (RED) Toolkit**

Many factors and forces are pushing hospitals to improve their discharge process to reduce the rate of readmissions. Researchers from Boston University Medical Center (BUMC) improved the discharge process through developing a set of activities and materials. These activities and materials are called Re-Engineered Discharge (RED). Many studies found that RED has a positive effect and reduces the rate of readmission and emergency room visits (Agency of Healthcare Research and Quality, 2013).

The rate of hospital readmission in the United States is high. It is approximately 1 in 5 for patients. The Agency of Healthcare Research and Quality (AHRQ) found that a specific factors lead to readmission including delay transfer of discharge summary from hospital to primary health care physician. This delay leads the primary physician to be unaware about the tests and procedures that were done during hospitalization. Another factor is some test results are not complete by the time of discharge and not include in the patient’s discharge summary. In addition, some patients do not fully understand their medical condition and nature of their health problems. Also, confusion about medication
can lead to adverse events and readmission to the hospital. Especially, if the patient was taking medication before admission and doctor gave him new medication after discharge. This can lead to the patient failing to take the correct medicine or taking wrong dosage. All of these can increase the rate of readmission to the hospital or emergency room visits. The RED project pushes hospitals to improve their discharge process (Agency of Healthcare Research and Quality, 2013).

The National Quality Organization (NQO) has begun to address the discharge planning. For example, the National Quality Forum (NQF) Safe Practice-15 is a key process of an effective discharge plan, including communication discharge information to community providers. Also, the Quality Improvement Organizations’ 9th Scope of Work, included Patient Pathways. This is improving the discharge process through measuring the quality of care in the transition health care, reducing readmissions, and developing replicable strategies to sustain reduced readmission rates (Agency of Healthcare Research and Quality, 2013).

Steps for delivery discharge summary according to the RED program, is start with gathering and entering all the information into software such as, Workbook, Workstation, or Word template and then give it to the patient. The healthcare provider should sit with patients and discuss each page carefully. The healthcare provider first should ask patient about his or her health beliefs because this can assist in the treatment plan. Some patients stop following the discharge plan in the second to third day after discharge. Also, some patients have decided to stop taking the medicine prescribed. After that the healthcare providers teach patients about their health problem, what caused it, and what the
treatment is. Also, open and ended questions with patients allows for more detail that can be helpful. For example, “What do you think has caused this problem? What do you think will help you get better so that you don’t have to come back to hospital?” (Agency of Healthcare Research and Quality, 2013, p. 37).

The next step is sit with the patient in the patient’s room and teach them about lists of all their medicines. The health care provider should cover any changes in the medication, such as new medication, change in dose, or frequency. Also, explain what can do if they miss a dose, explain the reason for each medicine, how long the patient should take each medicine, explain the side effects, and finally ask the patient to bring all medication to the follow up appointments (Agency of Healthcare Research and Quality, 2013).

Before discharge from the hospital, the healthcare provider should make follow up appointments and review all the details with patients which included the date of appointment, time, and location. Also, they should discuss with the patient about how the patient will get to appointment through provide maps and direction. The main important thing is explaining to the patient the main purpose of that appointment. Also, to teach the patient to call the hospital if they need to reschedule the appointment. Give the patient the contact information which includes the phone number of hospital. In addition, ask the patient to bring the discharge summary to all appointments (Agency of Healthcare Research and Quality, 2013).

After that, the healthcare provider should encourage the patient to ask if they have any questions. Studies found that most of the patients do not ask questions because they
thought the hospital staff is too busy to talk with them and answer their questions. According to the RED project, the health care provider can ask patients that encourage them to ask questions, for example, “That was a lot of information. I am sure you must have questions.” Regarding to this question “Do you have any questions?”, The RED project asked the health care provider to not ask the patient that question because most of the patients say no even if they have some question (Agency of Healthcare Research and Quality, 2013).

The Ask Me program was developed to improve effective communication between providers and patients to encourage patient understanding. This program encourages the patient to ask three things before leaving the medical encounter. They are what my main health problem is, what I have to do, and why it is important for me to do this (Agency of Healthcare Research and Quality, 2013).

According to the Re-Engineered Discharge program, the discharge information is very important to the patients because it can help the patient to better understand why should they take their medicine and keep their medical appointments. Also, discharge information allows patient to talk with family and friends about their health condition who can help you if they have any good ideas. In addition, discharge information helps the patient to make better decisions about their care (Agency of Healthcare Research and Quality, 2013).

According to the Re-Engineered Discharge, the main goal of the discharge educator is to educate and advocate for the patient through preparing them and their caregivers for discharge from the hospital. The main role of the discharge educator is
collaborating with patients and the medical team about what happened to the patient during the hospital stay and what the patient should to do after leaving the hospital and returning home. In the RED project, the role of the discharge educator is to make sure that all elements of the RED program are available in the discharge plan (Agency of Healthcare Research and Quality, 2013).

Discharge educators work with the medical team and hospital staff to review the discharge plan and identify any gaps. Also, they are working together to address gaps by arranging for appropriate services, such as diabetic education or a visiting nurse. In addition, discharge educators work to identify any barriers to complete patient’s discharge plan, such as transportation issues, cost of the medicine, or anticipated medicine side effects. Also, discharge educators create the After Hospital Care Plan (AHCP), an easy to understand discharge plan. Also, they teach patients to understand how they can take care for themselves once they go back home (Agency of Healthcare Research and Quality, 2013).

**The After- Hospital Care Plan (AHCP)**

The After- Hospital Care Plan is one principle of the RED program. It purpose is that all patients should leave the hospital with an easy to understand discharge plan. A discharge plan is a planned course of medical treatment that is given to the patient to use it after leaving the hospital. In general, the discharge plan is different form the discharge summary. The discharge summary refers to the summary of the medical aspect during the hospital stay and planned for the medical providers (Agency of Healthcare Research and Quality, 2013).
The AHCP presents all the required information that the patient need to prepare for the day between leaving hospital and the first visit with the outpatient care. The AHCP is designed to be easily and understood even by the patient with limited health literacy. The AHCP works through teaching patients how to take care of themselves when they go home from the hospital (Agency of Healthcare Research and Quality, 2013).

The components of the After- Hospital Care Plan (AHCP) in the discharge summary are; a personalized cover page that include the patient’s name, date of discharge, the name of the hospital, and name and contact number of the health care provider to contact him/her if there are any questions, lists of all medications with dosing, list of allergies, list of upcoming appointments include location of appointments and contact phone number, A30-day colored calendar showing the appointments, diagnosis information, patient record page which includes the patient’s questions, concerns, and symptoms they want to discuss in the next appointment, test results, list of medical equipment that patient needs (when available), any advanced directions, diet recommendations, and exercise recommendations (Agency of Healthcare Research and Quality, 2013).

The Patient information Workbook is an online website that works to guide healthcare providers step by step to make sure of all the patient’s information was collected to produce the After Hospital Care Plan (AHCP) and complete a RED discharge (Agency of Healthcare Research and Quality, 2013).
The RED Workstation is a software program which works to enter all of the patient’s information that has been collected in the Workbook. Also, physicians can upload patient picture. Also, some information can be uploaded into Workstation directly from the electronic health record. In addition, workstation automatically makes design and print personalized. Also, a manual template is available to patients for creating the After-Hospital Care Plan for English and Spanish speakers (see Figure 2, 3, 4, 5, 6, 7, & 8) (Agency of Healthcare Research and Quality, 2013).

Figure 2. AHCP example: cover page
### AHCP Example: Medicine Schedule

<table>
<thead>
<tr>
<th>What time of day do I take this medicine?</th>
<th>Why am I taking this medicine?</th>
<th>Medicine name</th>
<th>Amount</th>
<th>How many (or how much) do I take?</th>
<th>How do I take this medicine?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morning</td>
<td>Blood pressure</td>
<td>PROCARDIA XL NIFEDIPINE</td>
<td>90 mg</td>
<td>1 pill</td>
<td>By mouth</td>
</tr>
<tr>
<td></td>
<td>Blood pressure</td>
<td>HYDROCHLOROTHIAZIDE</td>
<td>25 mg</td>
<td>1 pill</td>
<td>By mouth</td>
</tr>
<tr>
<td></td>
<td>Blood pressure</td>
<td>CLONIDINE HCl</td>
<td>0.1 mg</td>
<td>3 pills</td>
<td>By mouth</td>
</tr>
<tr>
<td></td>
<td>Cholesterol</td>
<td>ATORVASTATIN CALCIUM</td>
<td>20 mg</td>
<td>1 pill</td>
<td>By mouth</td>
</tr>
<tr>
<td></td>
<td>Stomach</td>
<td>PROTONIX PANTOPRAZOLE SODIUM</td>
<td>40 mg</td>
<td>1 pill</td>
<td>By mouth</td>
</tr>
</tbody>
</table>

### Individualized:
- **Timing**
- **Rationale**
- **Medicine**
- **Dose**
- **Route**

**Figure 3.** AHCP example: medicine schedule
Figure 4. AHCP example: appointment page

Figure 5. AHCP example: additional information
AHCP Example: Patient Activation Page

Questions for Dr. Avery
For my appointment on Wednesday, August 8th at 11:30 am

Check the box and write notes to remember what to talk about with Dr. Avery

☐ my medicines ____________________________
☐ my pain ________________________________
☐ feeling stressed __________________________
☐ What other questions do you have? __________________________

Space to write down questions or concerns for primary care provider.

Tell Dr. Avery: When I left the hospital, results from an examination of stomach tissue to look for H. pylori were not available. Please check for results of these tests.

Figure 6. AHCP example: patient activation page
**AHCP Example: Appointment Calendar**

**August 2012**

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 Delivery of Bed by Martin Inc, 555-5555</td>
<td>2</td>
<td>3 Follow-up phone call</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8 Dr. Avery at 11:30 am 100 Main St, 2nd Floor, Anytown, ST</td>
<td>9 N.E. VNA to visit 555-555-5555</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16 Dr. Jones at 3:20 pm, 100 Pleasant Rd, Suite 105, Anytown, ST</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
<td>30</td>
<td>31</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 7. AHCP example: appointment calendar**
Figure 8. AHCP example: diagnosis information

Discharge Measures

National Quality Forum Safe Practice Discharge Measures (NQF)

The NQF Safe Practice is identifying a set of keys of intermediate process variables which lead toward hospital readmission through five essential measures. They are outcome measures, process measures, home management plan of care document given to patient/caregiver, structure measures, and patient-centered measures (Agency of Healthcare Research and Quality, 2013).
Outcome measures in the NQF include prevention of any direct harm associated with adverse events and treatment adverse events, including death, permanent or temporary disability, adverse drug events, and prevent any harm from treatment, missed diagnoses, delay of treatment, and inaccessible prior test information and medical records. The process measures in the NQF include the percentage of the discharge summaries received, number of post hospital patients who attend the follow-up appointment, and timeliness of discussion of the test results with the outpatient physician at the follow-up appointment (Agency of Healthcare Research and Quality, 2013).

The NQF requires that home management plan of care (HMPC) be a separate document which is given to the patient prior to or upon discharge form the hospital which exists that required information for health care. Also, the structure measures include any systematic hospital discharge performance which work to address some programs and policies, such as communication discharge information, verification of education programs, administrative leadership, and frontline caregivers, and formal report structure for discharge information (Agency of Healthcare Research and Quality, 2013).

The NQH provide surveys measure patient satisfaction about hospital discharge at the time of discharge or after. They are “During your hospital stay, did hospital staff talk with you about whether you would have the help you needed when you left the hospital?” (Q19); and “During your hospital stay, did you get information in writing about what symptoms or health problems to look out for after you left the hospital?” (Q20). Also, it provides self-report survey, such as the 3-Item Care Transition Measure (CTM-3) (Agency of Healthcare Research and Quality, 2013).
American College of Cardiology H2H (Hospital to Home) Program

The H2H is another organization approved by the American College of Cardiology and the Institute for Healthcare Improvement. This organization has a set some keys for reducing the rate of re-hospitalization through focusing on medication management post discharge, early follow up, and symptom management. The goal of the H2H organization is to reduce the rate of readmission among heart failure or acute myocardial infraction patients by 20 percent (Agency of Healthcare Research and Quality, 2013).

The American Board of Internal Medicine Foundation (ABIM), American College of Physicians (ACP), and Society of Hospital Medicine (SHM)

These are organizations which focus on measuring the transition of the care after discharge from the hospital. These organizations focus on improving patient understanding and adherence to the treatment plan (Agency of Healthcare Research and Quality, 2013).
CHAPTER 3

METHODOLOGY

Research Design

This research involves an experimental pretest-posttest design with both a case and control group to examine the effectiveness of discharge educational materials on patient’s knowledge, attitudes, and outcomes following in-hospital care. The two groups pretest and posttest design includes one dependent variable (patient discharge educational booklet) and independent variables (patient’s knowledge of their diagnosis and plan treatment and self-care skills). The experimental design is used to determine if there are any differences between groups after intervention (Bonate, 2000).

The pretest- posttest control group design is the strongest design to control for internal validity concerns but can have threats to external validity. External validity concerns include the interaction between pretest measurements and the intervention (treatment), and how the interaction may affect the results for the treatment group. Also, pretest measures can affect participants’ responses toward dependent variables in the treatment group rather than the treatment itself. Internal validity in the pretest- posttest design is lack randomization in the select the participants which increase the homogeneity in the sample. As participants in the experimental design have self-selected into treatment and control groups, this can increase self-selection bias. Sinclair, Wang, and Tetrick found that participants in self-selected treatment groups had significantly higher physical and mental health issues than participants in control groups (2012).
Hypothesis

Researcher hypothesize that a patient discharge summary and education program would improve patient’s knowledge, behavior, and attitude.

Samples

The target population in this study were women who had undergone caesarean section (C-section) deliveries. C-section is a surgical procedure used to deliver the baby through an incision in the mother’s abdominal and uterine walls. All participants were women, fully conscious (not unconscious/in a coma), between the ages of 18 to 50 and whose native language is Arabic. All participants selected from the obstetrics or gynecology department (OB/GYN) at Maternity and Children Hospital in Dammam city in Saudi Arabia and from Central Hospital in Qatif city in Saudi Arabia.

The Experimental Group

This group were a random sample (n= 33) of inpatient women who have given birth by caesarean section in Maternity and Child Hospitals in Saudi Arabia. This group will receive a treatment “Patient Discharge Information” Booklet. A pre-test will measure patients’ knowledge before the application of the treatment and a post-test will follow-up four weeks after.

The Control Group

This group were a random sample (n= 33) of inpatient women who have given birth by caesarean section in Maternity and Child Hospital in Saudi Arabia. This group
were not receive any treatment. A pre-test will measure patients’ knowledge before the application of the treatment and a post-test will follow-up four weeks after.

**Data Collection**

In the experimental group, data collection were conduct in three steps:

1. Step 1: Face to face interview with the patients before discharge form hospital to complete the pre-test step.
2. Step 2: Give patients “patient discharge information” and “Educational Booklet.”
3. Step 3: After four weeks, contact with patients through telephone to complete posttest survey questions over the phone interview.

In the control group, data collection were conduct in two steps:

1. Step 1: Face to face interview with the patients before discharge form hospital to complete the pre-test step.
2. Step 2: After four weeks, follow-up will occur to complete the posttest survey questions through telephone interview.

**Maternity and Children Hospital in Dammam City, Saudi Arabia**

The researcher started collecting pre-test data on December 18, 2016 and finished on January 30, 2017. The total number of participants from this hospital were 33. All participants were randomly selected. All of them were a control group, which means they did not receive any treatments.
All participants were randomly selected and all of them were an experimental group that received a treatment on a period time from December 18, 2016 until January 30, 2017.

Written consent form with Arabic and English versions were given to the participants before data collection started. In addition, oral consent forms were available before to explain the research process to the participants. Researcher asked participants to sign both Arabic and English forms face to face.

Then, face-to-face interviews completed the pretest evaluation with inpatient the 3rd day after surgery and at the discharge moment from hospital. The pretest took from five to eight minutes to finish. After that, the researcher applied the treatment, which took from 15 to 20 minutes. Then, the researcher contact participants through the phone to complete the post-test evaluation through phone interview. In addition, oral consent form were available through the phone before starting the post-test evaluation. The post-test period was from January 18, 2017 until February 2, 2017. The phone interview took from five to eight minutes to complete the posttest evaluation.

Research Questions

This study addresses the following research questions:

1. Does the participant have information, resources, and understand basic personal health information regarding his/her heath conditions including, diagnosis, treatment,
self-care management, medication instructions, normal expected symptoms, dangerous signs and what to do, as well as lifestyle changes?

2. How do educational discharge summaries in certain hospital departments make a difference in participants’ knowledge, behavior, and attitude?

**Assumptions of the Study**

The following assumptions were made in pursuit of this study:

1. It is assuming that patient discharge information is essential to healthcare and improves patient knowledge.

2. It is assuming that patient discharge information is improves patient’s attitudes.

3. It is assuming that patient discharge information is promote patient’s self-care skills.

**Instruments**

Creating new pre and post-intervention questionnaire composed of questions selected from existing discharge summary. One of them is the Joint Commission Standards (JCS). JCS is designed to assure quality control in the development and delivery of discharge summaries. JCS in regards to patient discharge instruction in the healthcare system includes standards for assessing patients (Clark et al., 2005). The second one is the Re-Engineered discharge (RED) project from Agency for Healthcare Research and Quality. This project improved the discharge process through developing a set of activities and materials (Agency of Healthcare Research and Quality, 2013). The third one is the National Health Service (NHS) Executive’s Patient Partnership strategy in the United Kingdom. This strategy was established in June 1996 to make a committee
that works to improve reality in medical practice. This partnership has been promoting patient involvement in health service development and policy-making. The primary objectives of the NHS organization are to improve patient’s participation in their health care, to help the patient to be an active partner with health professionals, enable patients to become informed about their health care and treatment, and help the patient to make informed decisions and choices they want (Coulter et al., 1998). The fourth instrument used in this research to measure patient’s satisfaction with verbal and written information on hospital discharge was from Mahrou’s research paper. His measurement patient perceptions regarding information given on hospital discharge in Saudi Arabia (Mahrous, 2013). There will be 17 questions in each pre and posttest.

Data Analysis

Following the generation of univariate statistics, it is anticipated that two additional methods for bivariate analysis will be used in this study. They are the two sample t-test on the different scores between pretest and posttest and repeated measures/split-plot analysis of variance. They will be used posttest minus pretest or vice versa to define the difference in scores and then test the null hypothesis. Covariance analysis is a method used for analyzing the data where the pretest score is used as a covariate while the difference score method is also an essential in this research design allowing for the covarying of the pre and post-test scores. Application of these methods will allow for the experimental group to be compared to the control group.
limitations

The following limitations were identified in this study:

1. Hospitals lack technology, which means all patients’ files were written by hand. The researcher had a hard time reading the patients’ files because healthcare providers such as doctors and nurses need the files to write in and complete their work. Also, there were only two computers in the department and one small printer. All of this made it hard to type the patient’s discharge information by computer and to give to the patient before discharge. Sometimes, the researcher recorded information manually.

2. Development of educational materials (treatment) is one of the limitations of this study because of the limited time between patient admission and discharge from the hospital.

3. Time for pre-testing is one of the limitations. Usually, patients only stay in the hospital for three days after a caesarean section procedure and the discharge process only takes a few hours. The researcher had limited time to complete the research process before discharge from the hospital.

Delimitations

The following delimitations were identified for this study:

1. The character of participants in this study is a major delimitation. All participants should be under the specific situation to participants in this study.
2. Data will be collect from two different groups of samples, intervention and non-intervention.

3. The study is delimitated to data collected from case samples that include a pre-test, treatment, and posttest.

4. The study is delimitated to compare the data collecting from case and control samples.

5. Pre-test data will be collected within in specific time frame. The data will be collected upon discharge of the patient and after treatment.

6. The study is delimited to collect post-test data within four weeks after discharge.
CHAPTER 4

RESULTS

Introduction

In this chapter, the results of the study are reported. The data reporting is organized by the two research questions. In the order they appear below. The research questions of the study were:

1. Do the participants have information and resources to understand basic personal health information regarding their health conditions including, diagnosis, treatment, self-care management, medication instructions, normal expected symptoms, warning signs and what to do, as well as lifestyle changes?

2. How do educational discharge summaries in certain hospital departments make a difference in participants’ knowledge?

Participants

To provide a context to the results that are presented in this chapter it is helpful to reiterate that there were 66 participants who completed the pretest survey questions; there were 33 participants in the experimental group and 33 in the control group. Thirty-three participants were from the Maternity and Children’s Hospital in Dammam, Saudi Arabia, and 33 were from the Obstetrics and Gynecology Department at the Central Hospital in Qatif, Saudi Arabia. All participants were women who gave birth by cesarean section, and all were inpatients at the pretest and outpatients at the posttest.
Of the 66 participants who completed the pretest, the 33 participants in the experimental group received the “patient discharge information” and the 33 in the control did not receive any information. At the posttest, only 51 participants completed the posttest, 28 from the experimental group and 23 from the control group. In the experimental group, five participants did not complete the posttest. One of them withdrew from the study without giving reasons, one of the participants could not be reached because her phone number is not correct, one of participants her phone number out of services and three of them did not responded to the researcher’s call. In the control group, 10 participants did not complete the study; one of them was withdrew from study, three of them gave the researcher an incorrect phone number, five of them their phone number out of service and one of them did not responded to the researcher call.

Regarding the IRB and human participant’s rights the researcher cannot ask or enforce participants to continue in the study (See Table 1).

Table 1

<table>
<thead>
<tr>
<th>Participants</th>
<th>Complete pre-test</th>
<th>Complete post-test</th>
<th>Incomplete Post-test</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>withdrawal</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Incorrect phone number</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Phone number out of service</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>No response</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>33</td>
<td>23</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5</td>
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</tr>
<tr>
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<td></td>
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<td></td>
<td>23</td>
</tr>
<tr>
<td>Experimental</td>
<td>33</td>
<td>28</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>51</td>
</tr>
</tbody>
</table>
The oral consent form and written consent form were available before data collection. In addition, the phone consent form was available before starting the posttest phone interviews.

**Demographic Characteristics**

The majority of participants were from Saudi Arabia by 88.2% in both control and experimental groups. Regarding educational level, 29.4% of participants had less than a high school level education, 35.3% had completed high school, and 35.3% had university level education in the both control and the experimental group (See Table 2).

**Table 2**

*Participants’ demographic characters*

<table>
<thead>
<tr>
<th>Demographic Characters</th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Nationality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Saudi</td>
<td>18</td>
<td>78.3%</td>
<td>27</td>
</tr>
<tr>
<td>• Non-Saudi</td>
<td>5</td>
<td>21.7%</td>
<td>1</td>
</tr>
<tr>
<td>Educational level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Less than high school</td>
<td>10</td>
<td>43.5%</td>
<td>5</td>
</tr>
<tr>
<td>• High school</td>
<td>7</td>
<td>30.4%</td>
<td>11</td>
</tr>
<tr>
<td>• University</td>
<td>6</td>
<td>26.1%</td>
<td>12</td>
</tr>
</tbody>
</table>

**Prior Experiences**

The majority of participants in the experimental and control group had prior experiences with postpartum recovery, 91.3% in the control group and 78.6% in the
experimental group. Also, 78.3% of the control group and 60.7% of the experimental
group had prior experiences with cesarean section delivery (See Table 3).

Table 3

*Participants’ prior experiences*

<table>
<thead>
<tr>
<th>Prior experiences</th>
<th>Control Group</th>
<th>Experimental Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percentage</td>
</tr>
<tr>
<td>Postpartum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>21</td>
<td>91.3%</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>8.7%</td>
</tr>
<tr>
<td>How many?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>8.7%</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>13.0%</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>21.7%</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>21.7%</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>17.4%</td>
</tr>
<tr>
<td>More than 5</td>
<td>2</td>
<td>8.6%</td>
</tr>
<tr>
<td>Cesarean section</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>18</td>
<td>78.3%</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>21.7%</td>
</tr>
<tr>
<td>How many?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>7</td>
<td>30.4%</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>17.4%</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>4.3%</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>17.4%</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>8.7%</td>
</tr>
<tr>
<td>More than 5</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

The reporting of data regarding participants’ awareness of their medical diagnosis
at pretest and posttest for both control and experimental group is reported in this chapter.

Thus, the data for research question 1 and 2 will be combined in this chapter.
Awareness Level

There are three levels of awareness in this research study. They are high, mild, and low awareness. The researcher in this study measured the level of the awareness in the many areas which including awareness about current health, self-care management, risk management, medication, behavior and attitude, physical activities and healthy living, nutrition and mental health.

Current Health Awareness

Current health awareness includes participants’ knowledge in diagnosis, medical procedure, and medical treatment. The researcher in this study measured the participants’ knowledge in both the control group and the experimental group in the pretest and posttest to find the participants’ level of awareness.

Diagnosis. The yes/no question was analyzed to address the participants’ knowledge regarding their current diagnosis. The results found that 86.3% of participants in both control and experimental group knew their diagnosis, 13.7% reported they did not know their diagnosis during the pretest, and 100.0% knew it at the posttest. In addition, 69.6% of participants in the control group knew their diagnosis in the pretest and 100.0% knew it in the posttest. All participants (100%) in the experimental group were aware of their diagnosis in both pretest and posttest (See Table 4).
### Table 4

**Participants’ awareness regarding their diagnosis**

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>Experimental group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td><strong>Pre-test</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Yes</td>
<td>16</td>
<td>69.6%</td>
<td>28</td>
</tr>
<tr>
<td>• No</td>
<td>7</td>
<td>30.4%</td>
<td>0</td>
</tr>
<tr>
<td><strong>Post-test</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Yes</td>
<td>23</td>
<td>100.0%</td>
<td>28</td>
</tr>
<tr>
<td>• No</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
</tr>
</tbody>
</table>

**Medical procedure.** Regarding the cesarean section procedure, only 13.7% of participants in both control and experimental group in the pretest situation knew what the cesarean section procedure meant and that rate increased to 51.0% in the posttest situation. The majority of the participants (67.9%) in the experimental group knew some information about what the cesarean section procedure involved during the pretest and 78.6% of them knew what the cesarean section was at posttest. The rate was different in the control group where 43.5% knew some information regarding cesarean section at pretest and only 17.4% knew all information about cesarean section at posttest (See Table 5).
Table 5

Participants’ awareness regarding their medical procedures

<table>
<thead>
<tr>
<th>Do you know what the cesarean section procedure means?</th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Pre-test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All</td>
<td>5</td>
<td>21.4%</td>
<td>2</td>
</tr>
<tr>
<td>• Some</td>
<td>10</td>
<td>43.5%</td>
<td>19</td>
</tr>
<tr>
<td>• None</td>
<td>8</td>
<td>34.8%</td>
<td>7</td>
</tr>
<tr>
<td>Post-test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All</td>
<td>4</td>
<td>17.4%</td>
<td>22</td>
</tr>
<tr>
<td>• Some</td>
<td>12</td>
<td>52.2%</td>
<td>4</td>
</tr>
<tr>
<td>• None</td>
<td>7</td>
<td>30.4%</td>
<td>2</td>
</tr>
</tbody>
</table>

Medical treatment. Regarding the physician’s recommendation for the cesarean section procedure, the results indicated that only 37.3% of participants in both control and experimental groups knew at pretest why the physician selected a cesarean section for them, however, that rate increased to 68.6% at posttest. The rate of knowledge was different for both groups. The results indicated that only 30.4% of participants in the control group knew all information related to why the physician selected cesarean section compared to 42.9% in the experimental group. At posttest, the results indicated that only 39.1% in the control group knew why their doctor selected cesarean, compared to 92.9% among the experimental group participants (See Table 6).
Table 6

Participants’ awareness regarding their medical treatment

<table>
<thead>
<tr>
<th>Do you know why your physician selected the cesarean section procedure for you?</th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Pre-test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All</td>
<td>7</td>
<td>30.4%</td>
<td>12</td>
</tr>
<tr>
<td>• Some</td>
<td>9</td>
<td>39.1%</td>
<td>15</td>
</tr>
<tr>
<td>• None</td>
<td>7</td>
<td>30.4%</td>
<td>1</td>
</tr>
<tr>
<td>Post-test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All</td>
<td>9</td>
<td>39.1%</td>
<td>26</td>
</tr>
<tr>
<td>• Some</td>
<td>7</td>
<td>30.4%</td>
<td>2</td>
</tr>
<tr>
<td>• None</td>
<td>7</td>
<td>30.4%</td>
<td>0</td>
</tr>
</tbody>
</table>

In the pretest, the researcher found that 35.53% of participants in both the control group and the experimental group had a mild level of the awareness. The rate of high awareness in this research was increased from 38.58% in the experiment in the pretest to the 82.86% in the posttest. Also, the rate of high awareness was increased in the control group from 29.54% in the pretest to the 57.38% in the posttest. Also, the results found that 19.98 % of the participants in the control group and 7.86% of the participants in the experimental group had a low level of awareness in the posttest regarding their current health (See Table 7).
Table 7
*Participants’ current health awareness*

<table>
<thead>
<tr>
<th>Research question 1: Participants’ awareness regarding their current health.</th>
<th>Control Group Mean</th>
<th>Experimental Group Mean</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High awareness</td>
<td>29.54%</td>
<td>38.58%</td>
<td>34.06%</td>
</tr>
<tr>
<td>Mild awareness</td>
<td>33.90%</td>
<td>37.16%</td>
<td>35.53%</td>
</tr>
<tr>
<td>Low awareness</td>
<td>36.52%</td>
<td>24.28%</td>
<td>30.40%</td>
</tr>
<tr>
<td>Research question 2: Participants’ awareness regarding their current health.</td>
<td></td>
<td></td>
<td>1.32</td>
</tr>
<tr>
<td>High awareness</td>
<td>57.38%</td>
<td>82.86%</td>
<td></td>
</tr>
<tr>
<td>Mild awareness</td>
<td>22.60%</td>
<td>9.28%</td>
<td></td>
</tr>
<tr>
<td>Low awareness</td>
<td>19.98%</td>
<td>7.86%</td>
<td></td>
</tr>
</tbody>
</table>

**Self-Care Management Awareness**

The researcher addressed the questions of to measure the level of self-care management awareness among participants in both the pretest and the posttest. Self-care management awareness includes participants’ knowledge and skills regarding their incision and incision care.

**Participants’ knowledge regarding their incision.** The yes/no question was analyzed, addressing participants’ knowledge regarding the kind of strip, (i.e. a belt worn following C-section as the abdominal wall and uterus heal), they had. Also, a checklist question founded on their knowledge regarding methods they would use for managing their incision at home.
The results showed that 19.6% of participants in both groups knew what kind of strips they had during the pretest, and that rate increased to 68.6% at posttest. The majority of participants (78.3%) in the control group in the pretest did not know what kind of strips they had. Only five of the participants (17.9%) in the experimental group at the pretest knew that they had clips and 23 participants (82.1%) had no idea about it. The rate in participants’ knowledge about the kind of strips they had in the experimental group increased in the posttest to 71.4% and 65.2% in the control group (See Table 8).

Table 8

<table>
<thead>
<tr>
<th>Participants’ knowledge regarding their incision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group</td>
</tr>
<tr>
<td>Pretest</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Do you know what kind of strips do you have?</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

Participants’ knowledge regarding their self-care management. The results regarding self-care management for the incision at home indicated that only 4.3% of participants in the control group could take care of their incision all of the time at home compared to 25.0% in the experimental group. In the posttest, 4.3% of the participants in the control group and 3.6% in the experimental group indicated not taking a care of their incision at home at all (See Table 9).
### Table 9

**Participants’ self-care management.**

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Can you take a care of your incision at home?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All the time</td>
<td>1</td>
<td>4.3%</td>
<td>7</td>
</tr>
<tr>
<td>• Some of the time</td>
<td>17</td>
<td>73.9%</td>
<td>15</td>
</tr>
<tr>
<td>• A little of the time</td>
<td>3</td>
<td>13.0%</td>
<td>3</td>
</tr>
<tr>
<td>• None of the time</td>
<td>2</td>
<td>8.7%</td>
<td>3</td>
</tr>
<tr>
<td>Did you take a care of your incision at home?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All the time</td>
<td>15</td>
<td>65.2%</td>
<td>20</td>
</tr>
<tr>
<td>• Some of the time</td>
<td>3</td>
<td>13.0%</td>
<td>6</td>
</tr>
<tr>
<td>• A little of the time</td>
<td>4</td>
<td>17.4%</td>
<td>1</td>
</tr>
<tr>
<td>• None of the time</td>
<td>1</td>
<td>4.3%</td>
<td>1</td>
</tr>
</tbody>
</table>

According to recommendations from the Ministry of Health, women should keep their incision dry and clean, let water and soap run down on the incision in the shower, avoid applying soap on a towel and directly scrubbing the incision, and avoid using any cream/lotion/ Neosporin/ or alcohol swab directly on the incision. Health care providers at the two hospitals in Saudi Arabia taught patients to use alcohol swab to clean their incision. In the experimental group, the rate of taking care for incision at home increased from 25.0% in the pretest to 71.4% in the posttest. Also, the rate of keeping the incision dry and clean increased from 71.4 to 96.4%, and the rate of following “let the water and soap run down on the incision” increased from 17.9 to 82.1%, but applying soap on a towel and directly scrubbing the incision deceased from 10.7 to 7.1%. But use of
cream/lotions/Neosporin/ or alcohol swabs on the incision increased from 32.1 to 64.3% because their physician and nurses restricted them to use alcohol swabs to clean their incision. The researcher found that 17.9% of patient used other methods which include eating specific food, drinking a lot of water, and some traditional methods (See Table 10 & Figure 1).

In the control group at pretest, 60.9% of participants in the control group reported planning to keep their incision dry and clean, 69.7% planned to let the water/soap run down on the incision in the shower, 4.3% planned to apply soap on a towel and plan to directly scrub the incision, 21.7% planned to use cream/lotions/alcohol swabs on the incision, and 0.00% used other methods (See Table 10 & Figure 1).

At posttest, 65.2% of the women patients in the control group took care of their incision at home, 82.6% kept their incision dry and clean, 47.8% let the water/soap run down on the incision in the shower, 95.7% avoided apply soap on a towel and directly scrubbed the incision, and 78.3% used cream/lotions/Neosporin/ or alcohol swabs on the incision. Regarding using alcohol swabs, health care providers in the hospital asked patients to use alcohol swabs to clean their incision as a method of management (See Table 10 & Figure 1).
Table 10

Self-care management

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th></th>
<th>Experimental Group</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>1. “I kept my incision dry and clean.”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓ Yes</td>
<td>14</td>
<td>60.9%</td>
<td>19</td>
<td>82.6%</td>
</tr>
<tr>
<td>✓ No</td>
<td>9</td>
<td>39.1%</td>
<td>4</td>
<td>17.4%</td>
</tr>
<tr>
<td>2. “I let the water/soap run down on the incision in the shower.”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓ Yes</td>
<td>23</td>
<td>69.7%</td>
<td>11</td>
<td>47.8%</td>
</tr>
<tr>
<td>✓ No</td>
<td>10</td>
<td>30.3%</td>
<td>12</td>
<td>52.2%</td>
</tr>
<tr>
<td>3. “I applied soap on a towel and directly scrubbed my incision.”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓ Yes</td>
<td>1</td>
<td>4.3%</td>
<td>1</td>
<td>4.3%</td>
</tr>
<tr>
<td>✓ No</td>
<td>22</td>
<td>95.7%</td>
<td>22</td>
<td>95.7%</td>
</tr>
<tr>
<td>4. Used cream/lotions/alcohol swap on my incision.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓ Yes</td>
<td>5</td>
<td>21.7%</td>
<td>18</td>
<td>78.3%</td>
</tr>
<tr>
<td>✓ No</td>
<td>18</td>
<td>78.3%</td>
<td>5</td>
<td>21.7%</td>
</tr>
<tr>
<td>5. Others.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓ Yes</td>
<td>0</td>
<td>0.00%</td>
<td>5</td>
<td>21.7%</td>
</tr>
<tr>
<td>✓ No</td>
<td>23</td>
<td>100.0%</td>
<td>18</td>
<td>78.3%</td>
</tr>
</tbody>
</table>
In the pretest, the researcher found that the majority (68.88%) of the participants in both the control group and the experimental group had a higher level of awareness regarding self-care management. But the results found that the rate of high awareness was reduced in the posttest from 76.15% to the 61.95% in the control group. On the other hand, the rate of high awareness was increased from 61.62% in the pretest to the 76.77% in the posttest in the experimental group. In addition, 38.05% of participants in the control group and 23.22% on the participants in the experimental group had low levels of awareness in the posttest (See Table 11).
Table 11

*Self-care management awareness*

<table>
<thead>
<tr>
<th>Research question 1: Self-care management awareness</th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy selected.</td>
<td>76.15%</td>
<td>61.62%</td>
<td>68.88%</td>
</tr>
<tr>
<td>Unhealthy selected.</td>
<td>23.85%</td>
<td>38.37%</td>
<td>31.11%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research question 2: Self-care management awareness</th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy selected.</td>
<td>61.95%</td>
<td>76.77%</td>
<td></td>
</tr>
<tr>
<td>Unhealthy selected.</td>
<td>38.05%</td>
<td>23.22%</td>
<td></td>
</tr>
</tbody>
</table>

*Risk Management Awareness*

Participants’ awareness regarding signs and symptoms. A checklist of questions were used to study participants’ awareness regarding signs and symptoms before and after discharge from the hospital. At pretest, 46.4% of the experimental group participants “went to the hospital” if they had chills or fever situation, 21.4% selected “drink water and ate specific food” if they experienced difficulty or pain when urinating, 28.6% selected “consuming water /food” if passing small amount of urine, 42.9% selected “consuming water/food” and 21.4% “take medicine” if experiencing constipation, 25.0% selected “go to the hospital” if experiencing heavy bleeding, 0.00% selected “resting” in case of see small clots, 46.4% selected “it is normal” to the increase amount of bleeding after 4 days, 50.0% selected “it is normal” to experience the pain in the breast area, 25% selected “it is normal” to experience the pain the thighs areas, 92.9%
selected “go to the hospital” in the case of any discharge, bleeding, or opening in the incision area (See Tables 12-21).

By comparing at pretest, 30.3% of control group participants selected “go to the hospital” if they had chills or fever situation, 0.00% selected “drink water and eat specific food” in the difficulty or pain during urination, 0.00% selected “drink water /food” in passing a small amount of urine, 0.00% selected “consuming water/food” and 24.2% “take medicine” in the case of constipation, 54.5% selected “go to the hospital” in the case of heavy bleeding, 3.0% selected “take a rest” case of seeing small clots, 0.00% selected “it is normal” to the increase amount of bleeding after 4 days, 9.1% selected “it is normal” to have pain in the breast area, 9.1% selected “it is normal” to have pain the thighs areas, 66.7% selected “go to the hospital” if there is discharge, bleeding, or opening in the incision area (see Tables 12-21).

Table 12

Signs and symptoms

<table>
<thead>
<tr>
<th>Chills or fever greater than 100.4°C</th>
<th>Control Group</th>
<th>Experimental Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>It is normal</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Go to the hospital</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Take a medicine</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>Take a rest</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Do nothing</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Food/water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 13

**Signs and symptoms**

<table>
<thead>
<tr>
<th>Difficulty or pain when urinate</th>
<th>Control Group</th>
<th>Experimental Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>• It is normal</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>• Go to the hospital</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>• Take a medicine</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>• Take a rest</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Do nothing</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>• Food/water</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>• Other</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 14

**Signs and symptoms**

<table>
<thead>
<tr>
<th>Urinating frequently with only a small amount of urine each time</th>
<th>Control Group</th>
<th>Experimental Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>• It is normal</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>• Go to the hospital</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>• Take a medicine</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>• Take a rest</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Do nothing</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>• Food/water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Other</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 15

**Signs and symptoms**

<table>
<thead>
<tr>
<th>Constipation</th>
<th>Control Group</th>
<th>Experimental Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>• It is normal</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>• Go to the hospital</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>• Take a medicine</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>• Take a rest</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Do nothing</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>• Food/water</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>• Other</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 16

**Signs and symptoms**

<table>
<thead>
<tr>
<th>Heavy-bright-red bleeding saturated more than two pads in one hour</th>
<th>Control Group</th>
<th>Experimental Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>• It is normal</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>• Go to the hospital</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>• Take a medicine</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Take a rest</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Do nothing</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>• Food/water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Other</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 17

**Signs and symptoms**

<table>
<thead>
<tr>
<th>Several small clots</th>
<th>Control Group</th>
<th>Experimental Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>• It is normal</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>• Go to the hospital</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>• Take a medicine</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Take a rest</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>• Do nothing</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>• Food/water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Other</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 18

**Signs and symptoms**

<table>
<thead>
<tr>
<th>Increase in amount of blood</th>
<th>Control Group</th>
<th>Experimental Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>• It is normal</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>• Go to the hospital</td>
<td>22</td>
<td>0</td>
</tr>
<tr>
<td>• Take a medicine</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>• Take a rest</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Do nothing</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Food/water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Other</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 19

**Signs and symptoms**

<table>
<thead>
<tr>
<th>Redness or pain in the breast area</th>
<th>Control Group</th>
<th>Experimental Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>It is normal</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Go to the hospital</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Take a medicine</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Take a rest</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Do nothing</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Food/water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 20

**Signs and symptoms**

<table>
<thead>
<tr>
<th>Pain, tenderness, redness, or swelling in the claves of thighs areas</th>
<th>Control Group</th>
<th>Experimental Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>It is normal</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Go to the hospital</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Take a medicine</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Take a rest</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Do nothing</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Food/water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 21

*Signs and symptoms*

<table>
<thead>
<tr>
<th>Any discharge or opening in the incision</th>
<th>Control Group</th>
<th>Experimental Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>• It is normal</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>• Go to the hospital</td>
<td>22</td>
<td>1</td>
</tr>
<tr>
<td>• Take a medicine</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Take a rest</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Do nothing</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Food/water</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Other</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

The researcher addressed some questions to measure participants’ awareness regarding risk management. Risk management includes the participants’ behavior and attitude toward some signs and symptoms that may occur to them after discharge from the hospital.

Through that measurement, the researcher found 53.01% of the participants in both the control group and the experimental group had a higher level of awareness regarding risk management in the pretest. In addition, the researcher found that 44.44% of the participants in the control group and 46.80% of the participants in the experimental group had higher levels of awareness regarding risk management in the posttest. Also, the results found that 16 cases out of 45 cases (35.55%) in the control group and six cases out of 47 cases in the experimental group in the posttest selected dangerous methods to manage their signs and symptoms after discharge from hospital (See Table 22).
Table 22

Risk management awareness

<table>
<thead>
<tr>
<th>Research question 1: Risk management awareness.</th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>• High</td>
<td>35.65%</td>
<td>70.36%</td>
<td>53.01%</td>
</tr>
<tr>
<td>• Mild</td>
<td>46.96%</td>
<td>28.57%</td>
<td>37.77%</td>
</tr>
<tr>
<td>• Low</td>
<td>34.78%</td>
<td>39.29%</td>
<td>37.04%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research question 2: Risk management awareness.</th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Positive</td>
<td>20 out 45 cases (44.44%)</td>
<td>22 out 47 cases (46.80%)</td>
<td></td>
</tr>
<tr>
<td>• Alternative</td>
<td>9 out 45 cases (20.00%)</td>
<td>19 out 47 cases (40.42%)</td>
<td></td>
</tr>
<tr>
<td>• dangerous</td>
<td>16 out 45 cases (35.55%)</td>
<td>6 out 47 cases (12.76%)</td>
<td></td>
</tr>
</tbody>
</table>

Medication Awareness

Participants’ knowledge regarding their discharge medication. A Likert scale was used to analyze patients’ knowledge regarding their discharge medication. The questions were; (a) I know the name of all my discharge medication, (b) I know the side effect for each one, (c) I know the dosage for each one, (d) I know the frequency for each one, (e) I know the instructions for each one, and (f) I know the purpose for each one. Response choices were; (a) all of them, (b) some of them, (c) a few of them, and (d) none of them.

When the results for the control group were compared to the experimental group, the researcher found that regarding knowledge of discharge medication; 34.8% of patients in the control group knew the name of discharge medication but 39.3% in the
experimental group knew, 4.3% in the control group knew the side effect and 21.4% in the experimental group knew, 56.5% knew the dosage in the control group and 67.9% in the experimental group knew, 78.3% knew the frequencies in the control group and 75.0% in the experimental group knew, 82.6% knew the instruction and 75.0% in the experimental group knew, and 47.8% knew the purpose in the control group and 32.1% in the experimental group knew. Also, seven patients in the experimental group were discharged from hospital without any medication (See Tables 23-28 & Figure 2).

Table 23

*Participants' awareness regarding medication name*

<table>
<thead>
<tr>
<th>“I know the name of all my discharge medication.”</th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td><strong>Pre-test</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All the time</td>
<td>11</td>
<td>47.8%</td>
<td>3</td>
</tr>
<tr>
<td>• Some of the time</td>
<td>2</td>
<td>8.7%</td>
<td>3</td>
</tr>
<tr>
<td>• A little of the time</td>
<td>1</td>
<td>4.3%</td>
<td>2</td>
</tr>
<tr>
<td>• None of the time</td>
<td>9</td>
<td>39.1%</td>
<td>20</td>
</tr>
<tr>
<td><strong>Post-test</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All the time</td>
<td>8</td>
<td>34.8%</td>
<td>11</td>
</tr>
<tr>
<td>• Some of the time</td>
<td>2</td>
<td>8.7%</td>
<td>5</td>
</tr>
<tr>
<td>• A little of the time</td>
<td>3</td>
<td>13.0%</td>
<td>0</td>
</tr>
<tr>
<td>• None of the time</td>
<td>10</td>
<td>43.5%</td>
<td>5</td>
</tr>
</tbody>
</table>
Table 24

Participants’ awareness regarding medication side-effects

“I know the side effects for each medication.”

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Pre-test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All the time</td>
<td>7</td>
<td>30.4%</td>
<td>0</td>
</tr>
<tr>
<td>• Some of the time</td>
<td>0</td>
<td>0.00%</td>
<td>1</td>
</tr>
<tr>
<td>• A little of the time</td>
<td>2</td>
<td>8.7%</td>
<td>0</td>
</tr>
<tr>
<td>• None of the time</td>
<td>14</td>
<td>60.9%</td>
<td>27</td>
</tr>
<tr>
<td>Post-test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All the time</td>
<td>1</td>
<td>4.3%</td>
<td>6</td>
</tr>
<tr>
<td>• Some of the time</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>• A little of the time</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>• None of the time</td>
<td>22</td>
<td>95.7%</td>
<td>15</td>
</tr>
</tbody>
</table>

Table 25

Participants’ awareness regarding medication dosage

“I know the dosage for each one.”

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Pre-test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All the time</td>
<td>6</td>
<td>26.1%</td>
<td>2</td>
</tr>
<tr>
<td>• Some of the time</td>
<td>1</td>
<td>4.3%</td>
<td>1</td>
</tr>
<tr>
<td>• A little of the time</td>
<td>3</td>
<td>13.0%</td>
<td>1</td>
</tr>
<tr>
<td>• None of the time</td>
<td>13</td>
<td>56.5%</td>
<td>24</td>
</tr>
<tr>
<td>Post-test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All the time</td>
<td>13</td>
<td>56.5%</td>
<td>19</td>
</tr>
<tr>
<td>• Some of the time</td>
<td>3</td>
<td>13.0%</td>
<td>0</td>
</tr>
<tr>
<td>• A little of the time</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>• None of the time</td>
<td>7</td>
<td>30.4%</td>
<td>2</td>
</tr>
</tbody>
</table>
Table 26

Participants' awareness regarding medication frequency

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N %</td>
<td>N %</td>
<td>N %</td>
</tr>
<tr>
<td><strong>Pre-test</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All the time</td>
<td>7 30.4%</td>
<td>3 10.7%</td>
<td>10 19.61%</td>
</tr>
<tr>
<td>Some of the time</td>
<td>1 4.3%</td>
<td>1 3.6%</td>
<td>2 3.92%</td>
</tr>
<tr>
<td>A little of the time</td>
<td>3 13.0%</td>
<td>0 0.00%</td>
<td>3 5.88%</td>
</tr>
<tr>
<td>None of the time</td>
<td>12 52.2%</td>
<td>24 85.7%</td>
<td>36 70.59%</td>
</tr>
<tr>
<td><strong>Post-test</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All the time</td>
<td>18 78.3%</td>
<td>21 100.0%</td>
<td>39 76.47%</td>
</tr>
<tr>
<td>Some of the time</td>
<td>0 0.00%</td>
<td>0 0.00%</td>
<td>0 0.00%</td>
</tr>
<tr>
<td>A little of the time</td>
<td>0 0.00%</td>
<td>0 0.00%</td>
<td>0 0.00%</td>
</tr>
<tr>
<td>None of the time</td>
<td>4 17.4%</td>
<td>0 0.00%</td>
<td>4 7.84%</td>
</tr>
</tbody>
</table>

Table 27

Participants' awareness regarding medication instruction

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N %</td>
<td>N %</td>
<td>N %</td>
</tr>
<tr>
<td><strong>Pre-test</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All the time</td>
<td>7 30.4%</td>
<td>5 17.9%</td>
<td>12 23.53%</td>
</tr>
<tr>
<td>Some of the time</td>
<td>1 4.3%</td>
<td>2 7.1%</td>
<td>3 5.88%</td>
</tr>
<tr>
<td>A little of the time</td>
<td>2 8.7%</td>
<td>0 0.00%</td>
<td>2 3.92%</td>
</tr>
<tr>
<td>None of the time</td>
<td>13 56.5%</td>
<td>21 75.0%</td>
<td>34 66.67%</td>
</tr>
<tr>
<td><strong>Post-test</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All the time</td>
<td>19 82.6%</td>
<td>21 100.0%</td>
<td>40 78.43%</td>
</tr>
<tr>
<td>Some of the time</td>
<td>0 0.00%</td>
<td>0 0.00%</td>
<td>0 0.00%</td>
</tr>
<tr>
<td>A little of the time</td>
<td>0 0.00%</td>
<td>0 0.00%</td>
<td>0 0.00%</td>
</tr>
<tr>
<td>None of the time</td>
<td>4 17.4%</td>
<td>0 0.00%</td>
<td>4 7.84%</td>
</tr>
</tbody>
</table>
Table 28

Participants' awareness regarding medication purposes

“I know the purpose for each one.”

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Pre-test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All the time</td>
<td>7</td>
<td>30.4%</td>
<td>0</td>
</tr>
<tr>
<td>• Some of the time</td>
<td>3</td>
<td>13.0%</td>
<td>3</td>
</tr>
<tr>
<td>• A little of the time</td>
<td>12</td>
<td>52.2%</td>
<td>5</td>
</tr>
<tr>
<td>• None of the time</td>
<td>1</td>
<td>4.3%</td>
<td>20</td>
</tr>
<tr>
<td>Post-test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All the time</td>
<td>11</td>
<td>47.8%</td>
<td>9</td>
</tr>
<tr>
<td>• Some of the time</td>
<td>2</td>
<td>8.7%</td>
<td>4</td>
</tr>
<tr>
<td>• A little of the time</td>
<td>3</td>
<td>13.0%</td>
<td>4</td>
</tr>
<tr>
<td>• None of the time</td>
<td>7</td>
<td>30.4%</td>
<td>4</td>
</tr>
</tbody>
</table>
Medication awareness includes participants’ knowledge and information regarding their discharge medication which includes medication name, dosage, frequency, instructions, purposes, and side effects. The results found that the majority (62.86%) of the participants in both the control group and the experimental group in the pretest had low levels of awareness regarding their medication. The rate of the high awareness was increased in both the control group and the experimental group in the posttest by 50.72% in the control and 69.0% in the experimental. Also, the results found 39.13% of the participants in the control group and 20.62% in the experimental group had low levels of awareness in the posttest (See Table 29).
Table 29

Participants’ awareness regarding Medication

<table>
<thead>
<tr>
<th>Research question 1:</th>
<th>Control Group</th>
<th>Mean</th>
<th>Experimental Group</th>
<th>Mean</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High awareness</td>
<td>32.58%</td>
<td>2.85</td>
<td>7.73%</td>
<td>3.58</td>
<td>20.14%</td>
</tr>
<tr>
<td>Mild awareness</td>
<td>22.42%</td>
<td></td>
<td>11.32%</td>
<td></td>
<td>33.74%</td>
</tr>
<tr>
<td>Low awareness</td>
<td>44.91%</td>
<td></td>
<td>80.93%</td>
<td></td>
<td>62.86%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research question 2:</th>
<th>Control Group</th>
<th>Mean</th>
<th>Experimental Group</th>
<th>Mean</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High awareness</td>
<td>50.72%</td>
<td>2.32</td>
<td>69.0%</td>
<td>1.32</td>
<td></td>
</tr>
<tr>
<td>Mild awareness</td>
<td>10.12%</td>
<td></td>
<td>10.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low awareness</td>
<td>39.13%</td>
<td></td>
<td>20.62%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Behavior and Attitude Awareness

Participants’ behavior and attitude. A Likert scale was used in the items dealing with to analyze participants’ behavior and attitude. Responses choices were; (1) strongly agree, (2) agree, (3) neutral, (4) disagree, and (5) strongly disagree in the “I wear a firm, supportive bra 24 hours a day” and in the “I expose my nipples to the air whenever I can.”

Regarding healthy behavior after cesarean section, healthcare providers suggested that women should wear a firm, supportive bra 24 hours a day to decrease breast pain and improve breast feeding. The results showed that only 15.7% of participants in both groups selected “strongly agree” for that at pretest and the rate increased to 54.9% at posttest. At pretest, 28.6% of women in the experimental group selected “strongly agreed” to wear a bra compared to 0.00% in the control group. The rate increased at
posttest in the experimental group to 71.4% reporting wearing bra 24 hours a day for
health purposes compared to 34.8% in the control group (See Table 30).

Table 30

*Participants’ behavior and attitude*

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>Experimental Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Pretest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“I will wear a firm, supportive bra 24 hours a day.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Strongly agree</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>• Agree</td>
<td>6</td>
<td>26.1%</td>
</tr>
<tr>
<td>• Neutral</td>
<td>3</td>
<td>13.0%</td>
</tr>
<tr>
<td>• Disagree</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>• Strongly disagree</td>
<td>14</td>
<td>60.9%</td>
</tr>
<tr>
<td>Posttest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“I wear a firm, supportive bra 24 hours a day.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All the time</td>
<td>8</td>
<td>34.8%</td>
</tr>
<tr>
<td>• Some of the time</td>
<td>5</td>
<td>21.7%</td>
</tr>
<tr>
<td>• A little of the time</td>
<td>7</td>
<td>30.4%</td>
</tr>
<tr>
<td>• None of the time</td>
<td>3</td>
<td>13.0%</td>
</tr>
</tbody>
</table>

Regarding questions concerning exposing the nipple to air, the results found that
only 2.0% of participants in both groups selected “strongly agree” at posttest to the items
related to “exposing their nipple to the air, but the rate increased to 5.9% at posttest. The
rate regarding exposing nipple to the air was 0.00% among the control group participants
compared to 10.7% in the experimental group. The rate of women who strongly agreed to
“expose their nipple to the air” in the experimental group was 3.6% and 0.00% in the
control group. At posttest, 10.7% of participants in the experimental group reported
exposing their nipple to the air all the time compared to 0.00% in the control group (See
Table 31).
Table 31

Participants’ behavior and attitude

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th></th>
<th>Experimental Group</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Pretest “I will expose my nipple to the air whenever I can.”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly agree</td>
<td>0</td>
<td>0.00%</td>
<td>1</td>
<td>3.6%</td>
</tr>
<tr>
<td>Agree</td>
<td>9</td>
<td>39.1%</td>
<td>2</td>
<td>7.1%</td>
</tr>
<tr>
<td>Neutral</td>
<td>4</td>
<td>17.4%</td>
<td>1</td>
<td>3.6%</td>
</tr>
<tr>
<td>Disagree</td>
<td>1</td>
<td>4.3%</td>
<td>2</td>
<td>7.1%</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>9</td>
<td>39.1%</td>
<td>22</td>
<td>78.6%</td>
</tr>
<tr>
<td>Posttest “I exposed my nipple to the air whenever I can.”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All the time</td>
<td>0</td>
<td>0.00%</td>
<td>3</td>
<td>10.7%</td>
</tr>
<tr>
<td>Some of the time</td>
<td>6</td>
<td>26.1%</td>
<td>3</td>
<td>10.7%</td>
</tr>
<tr>
<td>A little of the time</td>
<td>3</td>
<td>13.0%</td>
<td>2</td>
<td>7.1%</td>
</tr>
<tr>
<td>None of the time</td>
<td>14</td>
<td>60.9%</td>
<td>20</td>
<td>71.4%</td>
</tr>
</tbody>
</table>

The researcher addressed some questions to measure participants’ awareness in behavior and attitude. The results found that the majority (56.45%) of the participants in both the control and the experimental group had low levels awareness in behavior and attitude in the pretest. In the posttest, the rate of higher level of awareness was reduced from 32.6% to 17.4% in the control group and increased from 30.35% to 41.05% in the experimental group (See Table 32).
Table 32

*Behavior and attitude awareness*

<table>
<thead>
<tr>
<th>Research question 1:</th>
<th>Control Group</th>
<th>Mean</th>
<th>Experimental Group</th>
<th>Mean</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High awareness</td>
<td>32.6%</td>
<td>3.70</td>
<td>30.35%</td>
<td>3.63</td>
<td>31.47%</td>
</tr>
<tr>
<td>Mild awareness</td>
<td>15.2%</td>
<td>15.2%</td>
<td>8.95%</td>
<td>8.95%</td>
<td>26.1%</td>
</tr>
<tr>
<td>Low awareness</td>
<td>52.15%</td>
<td>60.75%</td>
<td></td>
<td></td>
<td>56.45%</td>
</tr>
</tbody>
</table>

| Research question 2: |               |      |                     |      |       |
|                      |               |      |                     |      |       |
| High awareness       | 17.4%         | 2.79 | 41.05%              | 2.43 | 37.5% |
| Mild awareness       | 45.6%         | 21.4%| 21.4%               |      |       |
| Low awareness        | 36.95%        | 37.5%| 37.5%               |      |       |

**Physical Activities and Healthy Living Awareness**

A checklist was used to examine participants’ awareness regarding when to resume normal activities, heavy lifting, sexual intercourse, and housework. Choices of responses were; (1) first 10 days, (2) after 10 days, (3) 2-4 weeks, (4) 4-6 weeks, and (5) more than 6 weeks.

Regarding healthy daily and physical activities in the postpartum period and after cesarean section, the Minister of Health recommend that women should resume normal daily activities and housework after 10 days, sexual intercourse after four weeks, and to avoid heavy lifting during the first 6 weeks. In the pretest, 7.1% of participants in the
experimental group, thought they would need to start their normal daily activities and 14.3% housework after 10 days, 39.3% planned to resume sexual intercourse 4-6 weeks later, and 89.3% planned to start lifting heavy objects if needed after 6 weeks. After patients received the information, 17.9% of women resumed their normal daily activities after 10 days, 17.9% resumed housework after 10 days, 92.9% did not start yet sexual intercourse in the week four, and 89.3% did not lift anything heavy in the week four (See Tables 33-36).

At pretest, 26.1% of control group participants, thought they would need to start their normal daily activities and 17.4% planned to start housework after 10 days, 34.8% planned to resume sexual intercourse 4-6 weeks later, and 82.6% planned to start lifting heavy object if needed after 6 weeks (See Tables 33-36).

At posttest, the results showed that 00.0% of women in the control group planned to resume their normal activities after 10 days and most of them planned to resume after 4 weeks. Also, regarding housework, only 6.1% of women planned to resume after 10 days and the majority planned to resume after 4 weeks. Also, 69.7% of control group planned to avoid heavy lifting compared to 89.3% in the experimental group. Regarding sexual intercourse, 82.6% in the control group and 92.9% in the experimental group plan to resume that after six weeks. The experimental group was healthier and more aware than the control group (See Tables 33-36).
Table 33

Participants’ daily activities

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>I will resume normal daily activities:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• First 10 days</td>
<td>2</td>
<td>8.7%</td>
<td>2</td>
</tr>
<tr>
<td>• After 10 days</td>
<td>6</td>
<td>26.1%</td>
<td>1</td>
</tr>
<tr>
<td>• 2-4 weeks</td>
<td>6</td>
<td>26.1%</td>
<td>8</td>
</tr>
<tr>
<td>• 4-6 weeks</td>
<td>5</td>
<td>21.7%</td>
<td>12</td>
</tr>
<tr>
<td>• More than 6 weeks</td>
<td>4</td>
<td>17.4%</td>
<td>4</td>
</tr>
</tbody>
</table>

I resumed normal daily activities:

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>• First 10 days</td>
<td>1</td>
<td>4.3%</td>
<td>0</td>
</tr>
<tr>
<td>• After 10 days</td>
<td>4</td>
<td>17.4%</td>
<td>5</td>
</tr>
<tr>
<td>• 2-4 weeks</td>
<td>0</td>
<td>0.00%</td>
<td>12</td>
</tr>
<tr>
<td>• Not yet</td>
<td>18</td>
<td>78.3%</td>
<td>11</td>
</tr>
</tbody>
</table>

Table 34

Participants’ physical activities

<table>
<thead>
<tr>
<th>Lifting heavier thing greater than baby</th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>I will be lifting heavier thing greater than baby:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• First 10 days</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>• After 10 days</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>• 2-4 weeks</td>
<td>0</td>
<td>0.00%</td>
<td>1</td>
</tr>
<tr>
<td>• 4-6 weeks</td>
<td>4</td>
<td>17.4%</td>
<td>2</td>
</tr>
<tr>
<td>• More than 6 weeks</td>
<td>19</td>
<td>82.6%</td>
<td>25</td>
</tr>
</tbody>
</table>

I Lifted heavier thing greater than baby:

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>• First 10 days</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>• After 10 days</td>
<td>0</td>
<td>0.00%</td>
<td>1</td>
</tr>
<tr>
<td>• 2-4 weeks</td>
<td>0</td>
<td>0.00%</td>
<td>2</td>
</tr>
<tr>
<td>• Not yet</td>
<td>23</td>
<td>100.0%</td>
<td>25</td>
</tr>
</tbody>
</table>
Table 35

Participants’ sexual activities

<table>
<thead>
<tr>
<th>Resume sexual intercourse</th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>I will resume sexual intercourse:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• First 10 days</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>• After 10 days</td>
<td>0</td>
<td>0.00%</td>
<td>1</td>
</tr>
<tr>
<td>• 2-4 weeks</td>
<td>2</td>
<td>8.7%</td>
<td>3</td>
</tr>
<tr>
<td>• 4-6 weeks</td>
<td>8</td>
<td>34.8%</td>
<td>11</td>
</tr>
<tr>
<td>• More than 6 weeks</td>
<td>13</td>
<td>56.5%</td>
<td>13</td>
</tr>
<tr>
<td>I resumed sexual intercourse:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• First 10 days</td>
<td>1</td>
<td>4.3%</td>
<td>0</td>
</tr>
<tr>
<td>• After 10 days</td>
<td>2</td>
<td>8.7%</td>
<td>0</td>
</tr>
<tr>
<td>• 2-4 weeks</td>
<td>1</td>
<td>4.3%</td>
<td>2</td>
</tr>
<tr>
<td>• Not yet</td>
<td>19</td>
<td>82.6%</td>
<td>26</td>
</tr>
</tbody>
</table>

Table 36

Participants’ housework activities

<table>
<thead>
<tr>
<th>Resume housework</th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>I will resume housework activities:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• First 10 days</td>
<td>2</td>
<td>8.7%</td>
<td>0</td>
</tr>
<tr>
<td>• After 10 days</td>
<td>4</td>
<td>17.4%</td>
<td>4</td>
</tr>
<tr>
<td>• 2-4 weeks</td>
<td>5</td>
<td>21.7%</td>
<td>10</td>
</tr>
<tr>
<td>• 4-6 weeks</td>
<td>8</td>
<td>34.8%</td>
<td>10</td>
</tr>
<tr>
<td>• More than 6 weeks</td>
<td>4</td>
<td>17.4%</td>
<td>4</td>
</tr>
<tr>
<td>I resumed housework activities:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• First 10 days</td>
<td>3</td>
<td>13.0%</td>
<td>2</td>
</tr>
<tr>
<td>• After 10 days</td>
<td>2</td>
<td>8.7%</td>
<td>5</td>
</tr>
<tr>
<td>• 4-6 weeks</td>
<td>8</td>
<td>34.8%</td>
<td>11</td>
</tr>
<tr>
<td>• Not yet</td>
<td>10</td>
<td>43.5%</td>
<td>10</td>
</tr>
</tbody>
</table>

Some questions in this research were addressed to measure the level of awareness regarding daily and physical activities by measuring participants’ knowledge and
behavior in some areas. They include daily, housework, physical, and sexual activities.

The results found that 51.68% of the participants in both the control group and the experimental group had unhealthy plans after discharge from the hospital. The posttest results showed that 54.50% of the participants in the experimental group and 52.17% in the control group selected healthy choices after discharge from the hospital. On the other hand, the results showed that 8.65% of participants in the control group and 6.22% in the experiential group selected dangerous behavior (See Table 37).

Table 37

Participants’ physical activities and healthy living awareness

<table>
<thead>
<tr>
<th>Research question 1:</th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy choices.</td>
<td>40.22%</td>
<td>37.50%</td>
<td>38.86%</td>
</tr>
<tr>
<td>Unhealthy choices.</td>
<td>48.90%</td>
<td>54.47%</td>
<td>51.68%</td>
</tr>
<tr>
<td>Dangerous choices.</td>
<td>10.87%</td>
<td>8.02%</td>
<td>9.44%</td>
</tr>
<tr>
<td>Research question 2:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthy choices.</td>
<td>52.17%</td>
<td>54.50%</td>
<td></td>
</tr>
<tr>
<td>Unhealthy choices.</td>
<td>39.15</td>
<td>39.30%</td>
<td></td>
</tr>
<tr>
<td>Dangerous choices.</td>
<td>8.65%</td>
<td>6.22%</td>
<td></td>
</tr>
</tbody>
</table>

Nutrition Awareness

A Likert scale was used to examine the participants’ information regarding “I have all the information that I need regarding nutrition after cesarean delivery.”

The results showed that only 35.3% of participants in both groups had nutrition information at pretest compared to 19.6% at posttest. Only 3.6% of participants in the experimental group had information regarding nutrition after cesarean delivery. The
The researcher measured the level of nutritional awareness among participants by measuring participants’ knowledge and information regarding nutrition after discharge from the hospital. The results showed that 50.3% of the participants in both the control group and the experimental group had low nutritional awareness in the pretest. In addition, the rate of high awareness was the same (21.7%) in the control group in both the pretest and the posttest. Also, the results found that the level of high awareness was increased in the experimental group from 21.5% in the pretest to the 57.1% in the posttest. Also, the rate of low awareness was increased in the control group from 43.5%
in the pretest to the 56.5% in the posttest, and that rate was decreased in the experimental group from 57.1% in the pretest to the 21.4% in the posttest (See Table 39).

Table 39

*Nutritional awareness*

<table>
<thead>
<tr>
<th>Research question 1:</th>
<th>Control Group</th>
<th>Mean</th>
<th>Experimental Group</th>
<th>Mean</th>
<th>Total</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>High awareness</td>
<td>21.7%</td>
<td></td>
<td>21.5%</td>
<td></td>
<td>21.6%</td>
<td></td>
</tr>
<tr>
<td>Mild awareness</td>
<td>34.8%</td>
<td></td>
<td>21.4%</td>
<td></td>
<td>28.1%</td>
<td></td>
</tr>
<tr>
<td>Low awareness</td>
<td>43.5%</td>
<td></td>
<td>57.1%</td>
<td></td>
<td>50.3%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research question # 2:</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>High awareness</td>
<td>21.7%</td>
<td>57.1%</td>
<td></td>
<td></td>
<td>3.40%</td>
<td></td>
</tr>
<tr>
<td>Mild awareness</td>
<td>21.7%</td>
<td>21.4%</td>
<td></td>
<td></td>
<td>21.55%</td>
<td></td>
</tr>
<tr>
<td>Low awareness</td>
<td>56.5%</td>
<td>21.4%</td>
<td></td>
<td></td>
<td>38.95%</td>
<td></td>
</tr>
</tbody>
</table>

**Mental Health Awareness**

A Likert scale was used to examine the participants’ information regarding “I have information regarding postpartum blues/depression.”

The results showed that only 43.1% of participants in both groups had information about postpartum depression at pretest compared to 21.6% in the posttest. 0.0% had enough information regarding depression about postpartum depression at pretest. The posttest showed that 35.7% of women had information regarding depression
In the experimental group. Also, 34.8% of the participants in the control group in the pretest had information regarding depression compared to 4.3% at posttest (See Table 40).

Table 40

Participants’ knowledge regarding mental health

<table>
<thead>
<tr>
<th>“I have information regarding postpartum blues/depression after cesarean delivery.”</th>
<th>Control Group</th>
<th>Experimental Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Pre-test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Strongly disagree</td>
<td>6</td>
<td>18.2%</td>
<td>14</td>
</tr>
<tr>
<td>• Disagree</td>
<td>1</td>
<td>3.0%</td>
<td>4</td>
</tr>
<tr>
<td>• Natural</td>
<td>5</td>
<td>15.2%</td>
<td>4</td>
</tr>
<tr>
<td>• Agree</td>
<td>3</td>
<td>9.1%</td>
<td>6</td>
</tr>
<tr>
<td>• Strongly agree</td>
<td>8</td>
<td>24.2%</td>
<td>0</td>
</tr>
<tr>
<td>Post-test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Strongly disagree</td>
<td>10</td>
<td>43.5%</td>
<td>5</td>
</tr>
<tr>
<td>• Disagree</td>
<td>3</td>
<td>13.0%</td>
<td>5</td>
</tr>
<tr>
<td>• Natural</td>
<td>4</td>
<td>17.4%</td>
<td>3</td>
</tr>
<tr>
<td>• Agree</td>
<td>5</td>
<td>21.7%</td>
<td>5</td>
</tr>
<tr>
<td>• Strongly agree</td>
<td>1</td>
<td>4.3%</td>
<td>10</td>
</tr>
</tbody>
</table>

Regarding mental health awareness, the results found that 42.75% of the participants in both the control group and the experimental group had a low level of mental awareness. Also, the results found the rate of high level of mental awareness was decreased in the control group from 33.3% in the pretest to the 26.0% in the posttest and increased in the experimental group from 21.4% in the pretest to the 53.6% in the posttest (See Table 41).
Table 41

*Mental health awareness*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Control Group</th>
<th>Mean</th>
<th>Experimental Group</th>
<th>Mean</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research question 1:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• High awareness</td>
<td>33.3%</td>
<td>2.73</td>
<td>21.4%</td>
<td>2.07</td>
<td>2.37</td>
</tr>
<tr>
<td>• Mild awareness</td>
<td>15.2%</td>
<td></td>
<td>14.3%</td>
<td></td>
<td>14.75%</td>
</tr>
<tr>
<td>• Low awareness</td>
<td>21.2%</td>
<td></td>
<td>64.3%</td>
<td></td>
<td>42.75%</td>
</tr>
<tr>
<td>Research question 2:</td>
<td></td>
<td>2.30</td>
<td></td>
<td>3.54</td>
<td></td>
</tr>
<tr>
<td>• High awareness</td>
<td>26.0%</td>
<td></td>
<td>53.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Mild awareness</td>
<td>17.4%</td>
<td></td>
<td>10.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Low awareness</td>
<td>56.5%</td>
<td></td>
<td>35.8%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Participants’ Satisfaction**

The yes/no question was analyzed to address the participants who receive the patient discharge information (PDI). The participants’ responses in “did you receive and discuss the patient discharge information with the researcher?” were; 28 selected yes (100.0%). Also, a Likert scale was used to address if participants read the patient discharge information at home. Response choices were; (a) yes, (b) some, and (c) none. Participants’ responses in the “did you read the patient discharge information (PDI) by yourself at home?” were; 21 selected yes (75.0%), three selected some (10.7%), and four selected none (14.3%).

A Likert scale was used to analyze participants’ satisfaction in different situations. A significant portion of the participants were not satisfied with the hospital information and health education after cesarean section.
In general, the participants in this study were discharged from the hospital with low satisfaction regarding hospital services at discharge from the hospital. Results found that 100.0% of participants were not satisfied with the information they received about what patients need to do after they leave the hospital, 96.4% were not satisfied with the information about the potential complication, 100.% were not satisfied with the information about the warning signs and symptoms regarding doctor notification, 100.0% were not satisfied with information about medication side effects, 71.0% were not satisfied with the information about dietary plans, 92.9% were not satisfied with the information about follow-up care plan, 96.4% not satisfied with information about how medical condition impacts daily life, 32.1% were not satisfied with the arrangement done by the hospital for the follow-up after discharge, 96.4% were not satisfied with the written discharge documents explaining the patients’ medical problem and further post-discharge instructions, and 42.9% were not satisfied with instructions about how to care for the surgical or wound site (See Table 42).
Table 42

Participants’ satisfaction about health care services.

<table>
<thead>
<tr>
<th>Information</th>
<th>Satisfied</th>
<th>Uncertain</th>
<th>Not satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information about what the patient needs to do after she leaves the hospital</td>
<td>0.00%</td>
<td>0.00%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Information about the potential complications of the patient’s medical condition</td>
<td>3.6%</td>
<td>0.00%</td>
<td>96.4%</td>
</tr>
<tr>
<td>Information about the signs and symptoms that the doctor should know immediately</td>
<td>0.00%</td>
<td>0.00%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Information about the reason for taking each medication and how this help with your condition</td>
<td>0.00%</td>
<td>0.00%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Information about the possible occurrence of medication side effects</td>
<td>0.00%</td>
<td>0.00%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Information about patient post discharge dietary plan.</td>
<td>10.7%</td>
<td>17.9%</td>
<td>71.4%</td>
</tr>
<tr>
<td>Information about follow-up care plan</td>
<td>3.6%</td>
<td>3.6%</td>
<td>92.9%</td>
</tr>
<tr>
<td>Information about medical conditions impact the patient and her family</td>
<td>0.00%</td>
<td>3.6%</td>
<td>96.4%</td>
</tr>
<tr>
<td>Arrangement done by hospital for the follow-up after discharge</td>
<td>39.3%</td>
<td>28.6%</td>
<td>32.1%</td>
</tr>
<tr>
<td>A written discharge document explaining the patient’s medical problem and further post discharge instructions</td>
<td>3.6%</td>
<td>0.00%</td>
<td>96.4%</td>
</tr>
<tr>
<td>Information about how to care for the surgical or wound site</td>
<td>14.3%</td>
<td>42.9%</td>
<td>42.9%</td>
</tr>
</tbody>
</table>

Conclusion

Research Question 1

Do the participants have information and resources to understand basic personal health information regarding their health conditions including diagnosis, treatment, self-care management, medication instructions, normal expected symptoms, warning signs and what to do, as well as lifestyle changes?
To answer this question, the researcher used covariance analysis to measure the level of knowledge and information among participants in both the control group and the experimental group in the pretest. The results found that the rate of high awareness ranged between 20.14% in the medication awareness to the 38.86% in the physical activities awareness (See Figure 11).

*Figure 11. Rate of high awareness among participants*

The researcher used two sample t-tests to measure the differences in the level of the awareness between the control group and the experimental group in the pretest. The results found that the control group has a higher level of awareness than the experimental group in the current health, medication, nutrition, and mental health awareness. The experimental group has a high level of awareness only in the behavior and attitude (See Figure 12).
Research Question 2

How do educational discharge summaries in certain hospital departments make a difference in participants’ knowledge, behavior, and attitude?

The researcher used two sample t-tests to measure the differences in the awareness between the control group and the experimental group in the posttest. The results found the level of awareness was high in the experimental group in all categories (current health, medication, behavior and attitudes, nutrition, and mental) than in the control group (See Figure 13).
Figure 13. Participants’ level of awareness in the posttest

Also, the researcher used pretest minus posttest to define the differences in the level of awareness in the experimental group between pretest, and posttest and test the null hypothesis. The results found that the increased level of awareness in the posttest in the experimental group in all categories after patient discharge information was applied (See Figure 14).

Figure 14. Level of awareness among experimental group
CHAPTER 5

DISCUSSION, IMPLICATIONS, LIMITATION, AND FUTURE DIRECTIONS

This chapter will provide a discussion of the findings reported in the previous chapter, and will be organized in four sections. The first is a discussion of the results for the two major research questions. The second will provide some implications of the study. The limitations of this study will be provided in section three. The fourth and final section will provide ideas for in future research studies.

Discussion of Findings

Participants

At the end of the data collection, there were 51 participants who completed the research instruments; 28 in the experimental group and 23 in the control group. The majority of participants were from Saudi Arabia by 88.2% in both control and experimental groups. It indicates that 88.2% of participants in this study were originally from Saudi Arabia who come from the same culture and surrounding environment which includes physical surroundings, social norms, health care, and education. According to the Schaafsma, Raynor, and de Jong-van den Berg (2003) “Culture also affects health beliefs such as causes of illness, effective treatments or appropriate behavior by the health provider” (P. 186). In addition, 88.2% of participants were exposed to the same prenatal, antenatal, and postnatal health care. Only 11.8% of participants were non-Saudi but spoke and understood Arabic language much as a native does.
The Relationship between Participants, Educational Level, and Awareness

Regarding education level, a portion of the participants had high school to university level education by 35.2% in both groups. It is also likely that all participants in this research can read, write, and understand Arabic. All participants in this study have the ability to think and communicate with health care providers and family members about their health condition. In general, all participants in this study reported understand as the patient education pamphlets. Studies in 1990 found that 19% of standard patient’s education materials are written at a level below a ninth-grade level, and 2% of pamphlets are written below a seventh-grade reading level. These findings are significant because on average the population’s reading skills are at the eighth-grade level (Williams, Davis, Parker, & Weiss, 2002).

However, significantly, 29.4% of participants in this study had less than a high school degree which means that these populations need more extensive health education to improve their awareness. Only 35.3% of participants had a university degree and the others had high school or less than high school. It is likely that this 35.3% of participants with a university degree who were more highly educated than the other participants understood the reading materials more than others. Researchers have found that educated people are more able to communicate, solve problems, analyze data, and develop ideas more readily than individuals with only a basic education. For example, highly educated people are more likely to quit smoking after a heart attack when compared to people in the less educated (Mirowsky & Ross, 2003). According to Mirowsky and Ross, 2003
“…the college degree, in particular, is most pertinent to health and well-being in their American data set” (P.2).

Participants and Prior Experiences

Eighty-four point three percent of participants in this study had prior experiences with postpartum (n=43) and 68.6% had prior experience with cesarean section delivery (n=35). Only 15.7% of participants in this study were first-time mothers. These percentages suggested that most of the participants should have some information and knowledge regarding postpartum and cesarean section delivery.

Awareness in Diagnosis and Current Medical Condition

Regarding the diagnosis, it is normal that participants knew what their diagnosis was because expecting women usually carry the baby for nine months if it not born prematurely. Through these nine months, all women were exposed to antenatal care. All women knew two ways to deliver the baby; a vaginal delivery and cesarean delivery. Prenatal health care providers and community enhance expecting mother’s knowledge of their pregnancy and their diagnosis. In this study, there were seven participants (30.4%) who did not know what their diagnosis was. They were unaware that giving birth sometimes delivery by cesarean is necessary. Some women go to the hospital and have no idea about their diagnosis and the medical procedure that their pregnancy may necessitate. All participants in the experimental group knew at pretest what their diagnosis was and they still knew after applying patient discharge information. Also, one paired statistic showed that the pretest mean of 1.00 and posttest mean of 1.00 which
signified improved patients’ awareness in their diagnosis after discharge. No significant difference was found between pretest and posttest in the experimental group regarding diagnosis information.

Awareness in Medical Procedure and Treatment

Regarding cesarean section procedures, 29.4% of the participants in both groups had no idea about this procedure. Only 13.7% of them had information about that, and 56.9% had some information. When the participants were asked, “Do you know what the cesarean section procedure means?” the answers were very simple, and used a general definition: including “opening my abdomen,” “it is normal,” “removing the baby through abdomen,” “cutting my abdomen,” or “it is a surgery.” No one gave specific information about how the cesarean section procedure is done.

The experimental group posttest showed an increase from 7.15 to 78.6% among the participants who knew what the cesarean section procedure means. It is likely that patient discharge information contributed to the participants’ knowledge regarding the meaning of the cesarean section procedure. When participants were asked “do you know what the cesarean section procedure means?” their answers were “C-section is a surgical procedure used to deliver the baby through an incision in the mother’s abdominal and uterine walls.”

The results in the control group were different, the rate of awareness went down from 21.7% in the pretest to 17.4% in the posttest. These results strongly suggest that patients discharge information (PDI) must have played an important role in increasing the
experimental participants’ awareness about the cesarean section procedure. The
decreased in awareness among the control group, participants reflects a lack of accurate
and standard information from health care providers about their situation, as well as
reflects a lack of communication that happens between health care providers and patients.
The other possibility is that patients simply forget the information they are provided.
According to Glanz, Rimer, and Viswanath (2008), clinical-patient communication can
improve information exchange and understanding of knowledge among patients. Health
education and communication between patients and health care professionals can
improve knowledge among patients, and that knowledge can stay longer and not be
forgotten immediately.

Awareness in the Reason of Medical Procedure

Regarding participants’ awareness of why cesarean section is needed, 15.7% of
participants in both the control and experimental groups had no idea why the physician
performed cesarean procedure. 47.1% of the participants knew some basic information
about cesarean. For example, when the researcher asked participants “do you know why
the physician selected cesarean section for you?” the answers were very basic; simply,
and no specific. Examples of their answers include, “because I had previous cesarean
section before,” “heart beats,” “baby position,” “baby heart beats,” “I do not have ability
for vaginal delivery, I cannot push,” “I had surgery before,” “my baby didn’t grow up,”
“spinal cord problems,” “low the uterus liquid,” “my pelvis is small,” “low baby heart
beats,” “I did not have contractions.”
The percentage of control group participants who did not know why the physician selected the cesarean section procedure was the same at pretest (30.4%) and posttest (30.4%). However, the percentage was more likely different for the experimental group, which was 42.9% at pretest and 92.9% at posttest. In addition, the percentage of participants in the experimental group who selected “did not know” as a reason for why cesarean section was selected went down from 3.6% in the pretest to 0.00% in the posttest. This indicates that patients discharge information (PDI) may have improved participants’ knowledge regarding the reason for why a physician chose a cesarean section delivery. Previous studies found that clinical-patient communication such as patient discharge information improved proximal outcomes among patients, such as increasing their level of understanding, satisfaction, clinical-patient agreement, trust, feeling “known,” feelings involved, and rapport (Glanz et al., 2008).

Kind of Incision and Strips

Regarding the kind of strips that physician used to close the wound, the results showed that 80.4% of participants in both groups did not know what kind of strips they had at discharge from hospital. Both hospitals used clips to close the incision in the abdomen and uterus. This kind of clips falloff in two weeks by themselves without any health care assistance. In the pretest, when the researcher asked participants “do you know what kind of strip you have?” the majority of participants answered, “I did not know,” “I did not have any idea about it,” “I did not see my incision yet,” or “maybe clips.” The researcher found that doctors in hospitals in Saudi Arabia did not commutes with patients about medical treatment and procedures. The results in the posttest were
different for both groups. The percentage of women who knew the kind of strip was 21.7% in the pretest and 65.2% in the posttest in the control group. This indicates improved patients’ knowledge regarding the kind of strips they had. In the experimental group, one paired statistic found that the percentage of women who knew the kind of strips they had was 17.9% at pretest and 71.4% in the posttest. This indicates that their awareness knowledge regarding kind of strips may be attributed to patient discharge information.

In the control group, most of the participants knew the type of strips by themselves after four weeks because the incision closed without removing any strips. In the pretest, 21.7% of participants knew what kind of strips they had compared to 65.2% who knew at posttest. This indicates that increased the percentage of awareness without any kind of education. The researcher thinks experiences, family, and friends may have played an important role in this. It is also possible that participants had wrong information. The researcher did not measure participants' content information to know if they had a correct or wrong answer. It is possible that the pretest question increased the participants’ thinking about the kind of strip they had, which may have led to knowing the kind of strip after that.

Self-Care Management

With respect to self-care management at home, the researcher found that only 15.7% of the participants in both groups planned to take care of their incision at home all the time, and 9.8% of them avoid they would never take care of their incision at home. The posttest results showed that self-care management at home increased among the
control group from 4.3 to 65.2%, and from 25.0 to 71.4% among the experimental group participants.

All patients were supposed to receive health education about wound care after surgery to decrease the possibility of infections, complications, and readmission. The descriptive statistics show that portion of the participants (42.9%) were not satisfied with the amount and quality of information they received about how to care for the surgical or wound site. This indicates that most of the participants more than 57% did not receive enough health education about self-care management at home upon discharge from hospital. Also, the healthcare providers spent less than five minutes after surgery talking with patients about how to take care of surgical wounds. Whatever information they received was pretty rushed and general. Patients reported the doctors against to them, “Please do not take a shower today and use alcohol swab for wound cleaning.” Participants were probably not in the best mental plate, no it is very likely for them to remember what the doctor told them because most of them were under pain relief medication, were sleepy, and could not understand very well what was happening around them.

One study found that 63% of patients who did not receive any information about wound care reported having wound problems, such as wound oozing and weeping, bleeding, discomfort with dressing, and/or infection because patients did not know how to take care of their incision wound (Henderson & Zernike, 2001). Another study found that 73% of patients received information about wound care prior to discharge from
hospital that was sufficient for their needs at home. In addition, clinical-patient communication improved self-care skills and self-management (Glanz et al., 2008).

Regarding the proper way to take care of the incision at home, percentage showed that 33.3% of participants did not plan to keep their incision dry and clean, 90.2% did not plan to let the water/soap run down on the incision in the shower, 7.8% planned to apply soap on a towel and directly scrub the incision, and 27.5% plan need to use local cream directly on the incision.

According to information replied by the Ministry of Health, women should keep their incision dry and clean, let water and soap run down on the incision in the shower, avoid applying soap on a towel and directly scrubbing the incision, and avoid using any cream/lotion/ Neosporin/ or alcohol swab directly on the incision. The researcher found that health care providers in hospitals in Saudi Arabia instructed patients to use alcohol swabs to clean their incision. In the experimental group, the percentage of patients taking care of their incision at home increased from 25.0% at pretest to 71.4% at posttest. Also, the percentage of patients reporting of keeping the incision dry and clean increased from 71.4 to 96.4%. The percentage of patients reporting letting the water and soap run down on the incision increased from 17.9 to 82.1%; the percentage of women who reported applying soap on a towel and directly scrubbing the incision went down from 10.7 to 7.1%. But their use of cream/lotions/Neosporin/ or alcohol swab on the incision increased from 32.1 to 64.3%. The increase may be due to the fact that the physicians and nurses asked the patients to use alcohol swab to clean their incisions. The researcher found that 17.9% of the patients used other methods to manage their incision at home such as eating
a specific food, drinking a lot of water, and using some traditional methods such as applying some herbs and oils directly on the incision.

In the control group, the percentage of women taking care of their incision at home increased from 4.3% at pretest to 65.2% at posttest. Also, the percentage of patients reporting keeping their incision dry and clean increased from 60.9 to 82.6%; letting the water and soap run down on the incision increased from 0.00 to 47.8%, and applying soap on a towel and directly scrubbing the incision was the same in the pretest and posttest (4.3%). However, the use of cream/lotions/Neosporin/ or alcohol swap on the incision increased from 21.7 to 78.3% possibly because the physician and nurses asked the patients to use alcohol swab to clean the incision. Also, 21.7% of the patients reported using other methods such as eating specific type of food, drinking a lot of water, and some uses traditional herbal methods to take care of their incision and soothe themselves.

There was an increased awareness in both the control and experimental groups in the use of healthy ways to care of the incision after discharge. Both groups kept their incision dry and clean, let the water/soap run down on their incision, and avoided direct scrubbing to the incision. Also, both groups used alcohol swabs to clean their incision. But results show that some participants still exhibited low self-care management regarding wound care. The results in the posttest for both groups show that 9.8% did not keep the incision dry and clean, 33.3% did not let the water/soap run down on their incision during shower, and 5.9% applied soap on a towel and directly scrubbed the incision. In the control group, 12.1% of participants they did not keep their incision dry and clean, 36.4% did not let the water/soap run down on their incision during shower, and
3.0% applied soap on a towel and directly scrubbed the incision. In the experimental group, only one (3.6%) participant reported not keeping her incision dry and clean, five participants (17.9%) did not let the water/soap run down on the incision in the shower, and two participants (7.1%) applied soap on a towel and directly scrubbed the incision.

**Risk Management Awareness**

Regarding signs and symptoms, the information form the Ministry of Health instructs patients to visit the emergency room if they experience chills, fever, a temperature of more than 100.4° C, heavy bleeding, any discharge, bleeding or opening of the incision. Also, the Ministry of Health recommends patients to drink eight glasses of water to avoid difficulty or pain when urinating, small amount of urine, and constipation. In addition, the information the Ministry of Health provides recommends that women rest if they see any small clots. The Ministry states that it is normal if women feel some pain in the breast, back, or thighs area, and that it is also normal if the amount of bleeding increases after three to four days.

Awareness about general health measure seemed to be low among the population. only 45.1% of participants would to go the hospital if they fever, only 11.8% would drink water if experiencing difficulty or pain during urination, and 15.7% would drink if they had a small amount of urine, 23.5% would eat specific foods if experiencing constipation and 27.5% would take medicine, only 37.3% would go to the emergency room if bleeding occurred, only 35.3% considered small clots as normal, 25.5% selected that “increase in the amount of blood is normal,” 33.3% of participants believed that pain in the breast is normal, and 19.6% believe pain in thighs was also normal.
The researcher found that participants felt it was necessary to go to the hospital what matter what their condition was, which increases the rate of readmission and hospital visits. This occurs unfortunately because patients lack essential basic information and awareness. 45.1% selected “go to the hospital” if they have a fever, 64.7% would go if they experienced pain during urination, 52.9% repeated that they would go to the hospital if there was a small amount of urine, 31.4% would go because of constipation, 49.0% would go if bleeding occurs, 41.2% would go because of small clots, 58.8% would go if there had an increase in blood discharge, 31.4% would go if they felt pain in their breasts, 33.3% would go because of the pain in their thighs, and 94.1% would go if they had a discharge or opening in the incision area. All of these lead to an increase in the rate of unnecessary hospitalization and emergency visits in hospitals thought Saudi Arabia. All patients should know what they have to do in different situations.

Some participants did not select the correct choices regarding signs and symptoms. This lack of knowledge could lead to complications such as infection and ever death. For example, 2.0% of the participants said that it was normal to sees discharge or opening in the incision area. This error of information could lead to failure to peek emergency develops as any discharge or opening in the incision area requires emergency care. In general, any opening in the incision area could lead to severe infection and to severe complications. Also, the data showed that 11.8% of the participants selected “do nothing” if bleeding occurs, 37.3% said “it is normal,” and only 49.0% said they “go to the hospital.” If bleeding occurs, participants should go to the hospital immediately to avoid any complications. Health care providers must therefore tell that to the patients
upon discharge from the hospital. It is problematic that 37.3% of participants thought that heavy bleeding in the first four weeks after cesarean section was normal. These may lead to an increase in the rate of mortality in the postpartum period. In general, lack of health education leads to a lack of self-care awareness among the population, which often results in unhealthy practices.

The results were different in the posttest, especially in the experimental group. The researcher found an increase in awareness about signs and symptoms, especially the warning or alarming ones. After giving patient discharge information, most of the patients (66.6%) took medicine when they felt chills or had a fever rather than going to the hospital (11.1%). Women know that no heavy bleeding is normal in the postpartum period, which point out that health education improved participants’ awareness and reduced the potential complications that could happen in the postpartum period. In cases where there was an opening or discharge in the incision area, the researcher found that 66.6% of participants would go the hospital, 16.6% would do nothing, and 16.6% selected other methods. Also, the patients discharge information decreased the rate of the hospital visits. For example, only one participant avoid she would go to hospital if she experienced pain during urination and one participant said she would go to the hospital if she felt pain in the breast area. Great improvement was made in patients’ knowledge regarding signs and symptoms after receiving patient discharge information.

The researcher found that the control group had lower awareness regarding signs and symptoms. The results found that; six women had chills or fever more than 100.4 and their reaction was 4.3% of them took a medicine. Regarding difficulty or pain in
urination, the results found that; six patients had it, and five did nothing and one selected other. Regarding having a small amount of urine, the researcher did not see any healthy behavior about that. The researcher found three women had that and all of them did nothing. Regarding heavy bleeding, researcher did not see any good reaction for that. Through two cases; one selected “it is normal” and another one did nothing. Also, the same in the small colts, seven selected “it is normal” and four did nothing. The results found that one cases of opening/ discharge in the incision and her reaction was “it is normal.” Also, four cases did nothing when they experienced constipation.

The researcher found that all participants (100.0%) did not receive any information about signs and symptoms and 96.4% did not receive any information about complications. Additionally, all patients responded to symptoms by then own knowledge and friends or ask their family in the situation. The researcher measured participants’ reaction in order to know how patient discharge information can effect reactions. In general, the researcher found that some patients go to hospital for any reason and some patients like to do nothing. The researcher found poor awareness regarding signs and symptoms in the control group especially in the dangerous signs. All of this is because of lack of health resources and health education.

Studies found that any complication that happens after discharge can be costly. For example, wound infection typically costly ranging from $5155 to $6200 compared with $1773 for a person without wound infection (Pieper et al., 2006). According to Henderson and Zernike, 58% of patients who received health education about wound care and pain management did not experience any health problems after discharge from
hospital. Many of the patients who did not receive any standard information about pain management and wound care experienced health problems after discharge from the hospital. Henderson and Zernike said that at conclusion of their study “…information pertaining to wound care and pain management are important to the well-being of patients after discharge” (2001, P.439).

Pieper et al., (2006) found that all patients reported needing information after surgery about wound care and 88.9% of them were satisfied with the information they received. They suggested that patients need the follows three main categories of information prior to being discharged from the hospital: pain management, wound care, and activity guidelines. Pieper and colleagues pointed out that “Patients generally want a high level of information; this information helps to optimize their functioning especially during the first 2 weeks at home” (P. 287).

**Medication Instructions**

Regarding medication information, results found that only 27.5% of the participants knew the name of their prescribed medication, 13.7% knew the side effects of each medication, 15.7% knew the proper dosage for each medication, 19.6% knew the frequency for each medication, 23.5% knew the instruction for each medication, and 13.7% knew the purpose for each medication upon discharge form hospital. The researcher found that most healthcare providers did not give patients any education about their medication which includes the name, dosage, frequency, purpose, and side effects. The data showed that 100.0% of the participants were not satisfied with the information they received about the potential side effects of their medication, and 25.0% were not
satisfied about the information they received about the reason for taking each medication. Some healthcare providers gave patients some information regarding the purpose of the medication they prescribed for example, “This is medication for is the pain relief.”

In both hospitals where data was collected, doctors gave all cesarean patient two medication. The first one was Panadol, 500 mg every 4 hours as needed by mouth. This is an acetaminophen medication for pain relief. The second medication was Folic Acid. Also, all the patients were discharged from hospital with their medications a heading in their package discharge. Patients did not need to go to the pharmacy to pick up their medication. As the hospital provided the medications to all patients as a part of the its patient services. The nurses are instructed to give the medications to patients before they are discharged. At the time of discharge, the researcher never saw the nurse or doctors giving any health education or medication instructions to the discharged patient.

Patients should read the drug label to know all the required information regarding dosage and how must to take. The researcher asked patients if they had received any information regarding their prescribed drugs and the results show that 100.0% of patients had not received any information. The data showed that seven patients in the experimental group were discharged from the hospital without any medication by mistake. The hospital did not give them their medication and the patients were unaware that the hospital should have sent medication with them to take at home. Knowledge regarding discharge medication after giving patients discharge information seemed to have gone up. It is very important for patients to know the name, purpose, side effects, frequencies, and instructions for each medication as a part of treatment. The label on the
drug given to patients was not clear enough and as much did not help patient understand
the doctor’s instructions of what to do with the medication. Health care providers such as
doctors, nurses, or pharmacists should talk with their patient about medication and
provide them with sufficient information about what they are taking, when to take it, how
and why they are taking it.

On pretest survey question, the majority of the participants in both control and
experimental group (56.9%) could not remember the name of their medication. When
asked to list the name of their medication, some of the participants said “I have pain relief
medication and vitamins.” They did not know what kinds of vitamins that they were
supposed to have and did not know what the name of the pain relief medication was, such
as Panadol or Morphine. Regarding potential side effects for each medication, most of the
participants in both groups (80.4%) were unaware of potential side effects, and most of
them thought that since the doctor prescribed them, medications were always beneficial
to the body. With regard to dosage, 72.5% of the participants in both group did not know
the dosage for each medication, and only 16.9% of the participants’ knew how often they
had to take their medication. The patients, however, did not knew for how many days
they were supposed to take the medications. Some participants gave answers such as “I
have to take the pain medication one tablet every six hours.” But when asked “for how
many days?” the answers was “I do not know, or may be until I feel better, or until I
finish all the tablets I was given.” Regarding instructions for taking medications, only
23.5% of taking the participants knew that their prescribed medication was to be taken by
mouth. Regarding patients’ awareness of the reason for taking each medication, 64.7% of
the participants did not know why they were taking the medication. Many participants knew the purpose of their medication more than the name of the medication they were taking. When asked, “do you know the purpose for each medication?” the answer was: “yes, I have pain relief medication and some vitamins.” When asked, “Do you know the purpose of the vitamins?” The majority said “no,” “I do not know,” “maybe my body needs it,” or “maybe I have a vitamins deficiency of some kind.” Actually, most postpartum patients in Saudi Arabia are discharged from the hospital with two main medications: Panadol (or any kind of relief pain medication) and Folic acid. No vitamins appear on their lists.

The patient discharge information improved patient knowledge regarding their discharge medication. The one paired statistic showed that patient knowledge improved from 10.7% of patient knowing all the medication names to 52.3%, from 0.00% knowing the side effects to 28.5%, from 7.1% knowing the dosage for each medication to 90.4%, from 10.7% knowing the frequency to 100.0%, from 17.9% knowing the instruction to 100.0%, and from 0.00% knew the purpose of each medication to 42.8%.

By comparison, the one paired statistic indicated that patient knowledge among control group participants improved from 33.3% of patient knowing all the medication name to 34.8%, from 30.4% knowing the side effects to 4.3%, from 26.1% knowing the dosage for each medication to 56.5%, from 30.4% knowing the frequency to 78.3%, from 30.4% knowing the instruction to 82.6%, and from 30.4% knowing the purpose for each medication to 47.8%. The data also showed minimal improvement in the participants’ knowledge regarding discharge medication. The small improvement may be attributed to
the experience rather than education. This comparison of the two group’s awareness shows that compared to the control group, the experimental participants exhibited more knowledge of their medication name, potential side effects, how much take, and when its take it.

The data clearly show that the patient discharge information plays an important role in improving patients’ knowledge regarding most of their discharge medication. Patients’ knowledge increased about dosage, frequency, instructions, and purpose for each medication they doctor gave them, but the patients did not know in the name of and side effects of their medication.

**Life Style**

Regarding healthy behavior after cesarean section, healthcare providers suggested that women should wear a firm, supportive bra 24 hours a day to decrease breast pain and ease breastfeeding. In the pretest results, only 15.7% of women agreed to the statement regarding wearing a supportive bra 24 hours a day in both the control and experimental group, and that percentage increased to 54.9% in the posttest.

The percentage of women constantly wearing supportive bra increased from 28.6% to 71.4% in the experimental group and from 0.00% to 34.8% in the control group. The percentage in the experimental group was higher than in the control group. It is likely that patient discharge information (PDI) improved participants’ behavior and attitudes toward healthy issues.
The percentage increased from 0.00 to the 34.8% in the control group for another reason. In the Saudi Arabian culture, women stay at their parents’ home after child delivery because they need rest, and their mothers and sisters are there to help them during the postpartum period. Most women stay at their parents’ home for four to six weeks. Also, women in Saudi Arabia cover their bodies and wear good clothes when they are out. Therefore, women always wear a bra 24 hours per day as a rule of fashion and to look nice. In addition, 71.4% of women in the experimental group strongly agreed to wearing a bra compared to 28.6% in the pretest. After patients were giving discharge information, the percentage of reports of wearing bra 24 hours a day for health purposes increased to 71.4% in the experimental group compared to 34.8% in the control group.

Also, the discharge information provided by the Ministry of Health recommends that women expose their nipples to the air whenever they can. For the same cultural reason above, women avoided exposing their nipples to the air because they stay at their parents’ home and most of the women in Saudi Arabia in general and the ones in this study in particular have not adopted and accepted this behavior yet. Modesty requires covering certain path of the body and not expose them ever in front of others their mothers. The percentage for exposing the nipple to the air was 2.0% both the experimental and control groups. The percentage of women who exposed their nipple to the air was 3.6% during the pretest and 10.7% in the posttest in the experimental group and 0.00% in the control group. The percentage in the experimental group increased after the patients received discharge information but remained low in the control group.
Regarding healthy behavior and attitude in the postpartum period and after a cesarean section, the Minister of Health recommends that women resume normal daily activities and house work after 10 days, resume sexual intercourse after four weeks, and avoid heavy lifting during the first six weeks. Culture in Saudi Arabia plays an important role in women’s self-care behavior. Women stay from four to six weeks at their parents’ home without their husbands. At that time, most women do not participate in housework, normal daily activities, or sexual intercourse until four to six weeks later. Also, most women in Saudi Arabia do not lift anything heavy as a part of their culture; men do the lifting. In the pretest, 7.1% of participants in the experimental group thought they would need to start their normal daily activities after 10 days and 14.3% thought they needed to start housework after 10 days, 39.3% planned to resume their sexual intercourse 4-6 weeks later, and 89.3% planned to start lifting heavy objects if needed after 6 weeks. After patients received discharge information, 17.9% of women resumed their normal daily activities after 10 days, 17.9% resumed housework after 10 days, 92.9% did not start yet sexual intercourse, and 89.3% did not lift anything heavy. The findings show that women selected healthful behavior after a cesarean section.

In the control group, 0.00% of women resumed their normal daily activities after 10 days, 8.7% resumed house work, 57.6% resumed sexual intercourse after 4 weeks, and 100.0% avoided heavy lifting in the first four weeks. This indicates that participants selected unhealthy behavior regarding housework and daily activity but selected healthy behavior regarding sexual intercourse and heavy lifting. It is likely that culture played an
important role and explain the increased in the sexual intercourse and heavy lifting categories.

**Nutritional and Mental Health**

During data collection, the researcher found the majority of women lack essential information regarding nutrition and mental health in the postpartum period. Most participants did not receive any health education about both. Results showed that only 10.7% of women were satisfied with the information about diet. Hospitals in Saudi Arabia provide nutrition and health education only for patients with chronic health problems, such as diabetes. Some women in the study had diabetic mellitus, obesity, and heart problems during pregnancy.

Only 35.3% of the participants had information about nutrition and only 43.1% had information about depression after a cesarean section. The posttest results found that knowledge about nutrition increased in the experimental group from 3.6 to 32.1% and knowledge about depression increased from 21.4 to 35.7%. Participants’ knowledge increased after patient's discharge information (PDI) was given to the experimental group. By comparison, knowledge about nutrition in the control group decreased from 8.7 to 4.3% and the knowledge about depression decreased from 34.8 to 4.3%.

“Prevention of postnatal mental disorders in women is an important component of comprehensive health service delivery because of the substantial potential benefits for population health” (Rowe & Fisher, 2010, P. 1). Previous studies in Australia found that
psycho-educational programs in both public and private health sector can modify the risks of mental health problems early in the postnatal period and state that,

Theories of group behavior, adult learning, and social cognition were identified as salient to a psycho-educational approach to prevention of mental health problems. Psycho-education seeks to improve knowledge about relevant risk and protective factors for mental health problems, builds on participants’ strengths and resources, and promotes specific skill development (Rowe & Fisher, 2010, P. 10).

How Do Educational Discharge Summaries in Certain Hospital Departments Make a Difference in Participants’ Knowledge?

Most of the patients were discharged from the hospital without any instructions regarding their diagnosis, treatment, medication, signs and symptoms, complications, and lifestyle. All this information is required for personal wellness and for patients to avoid any medical errors. Also, it plays an important role in avoiding overcrowding in the emergency room. After completing the study, the researcher found that patient discharge information (PDI) improved patients’ knowledge, behavior, and attitude regarding their medical condition after discharge from the hospital to home. Hospitals in Saudi Arabia should give patient discharge information (PDI) to improve healthcare services and quality and to avoid any medical errors that may occur after patients are discharged from the hospital.

In conclusion, patient discharge information (PDI) acted as an indent intervention in this research study. All participants in the experimental group received the patient discharge information (PDI) upon discharge from hospital. The PDI contained essential information to improve patients’ knowledge, behavior, and attitude after discharge from hospital.
Regarding patients’ knowledge, behavior, and attitude, the results showed that the patient discharge information (PDI) in the experimental group improved participants’ knowledge in diagnosis, medical procedure, treatment, self-care management, signs and symptoms awareness, medication, lifestyle, nutrition, and mental health. The results show reduced knowledge in the control group especially in the medical procedure, treatment, signs and symptoms awareness, lifestyle, nutrition, and mental health. The results showed small improvements in patients’ knowledge of diagnosis, self-care management, and medication. In general, no appreciable improvement was noted in their explanation for what the cesarean section procedure means (See Figure 15, 16, 17, & 18).

Figure 15. Compare the rate of knowledge among experimental group
Figure 16. Compare the rate of knowledge among control group

Figure 17. Compare the average of knowledge among control group
In the control group, family and friends may have played a role in teaching participants about their health condition. The Saudi Arabian culture is known for its close kind families where family members dispense information and advice to patients. The researcher did not measure patients’ information resources to know where patients got their knowledge, such as family, friends, books, internet, or the hospital. Also, the researcher did not measure the content of information. It is possible patients may have other reasons for having a cesareans section, or that patients have incorrect information. The participants were asked if they knew what their current diagnosis was, but the researcher did not ask what it was before. Also, the researcher asked patients if they knew the reason for cesarean section, but did not ask them to tell why they had it. So, it is possible that patients felt they knew, and what they know could have been incorrected.

*Figure 18. Compare the average of knowledge among experimental group*
Saudi Arabian culture plays an important role in interesting women of what to do after a cesarean section. According to culture, postpartum women should stay 40 days at their parents’ house and their family, friends, and neighbors come to visit during this period. All women in this study stayed a minimum of four weeks at their parents’ home and received many visitors. Most of the topics during child reception are about child delivery, breast feeding, self-care management, food, and habits. As a result, people act as primary sources of information to patients.

The researcher did observe that doctors in hospitals in Saudi Arabia do not speak with patients about medical procedures and treatment. This plays a significant role to reduce patients’ knowledge and awareness.

**Implications**

Patient discharge information (PDI) improved patients’ knowledge in different areas, which included medical diagnosis, medical procedure, and treatment. Also, patient discharge information (PDI) increased patients’ awareness of signs and symptoms of complications. In addition, the researcher found that patient discharge information (PDI) plays an important role in increasing patients’ knowledge toward their discharge medication. All patients who received patient discharge information (PDI) at discharge from the hospital have the ability to list their discharge medications, their purposes, side effects, dosage, and instructions. Also, patient discharge information (PDI) improved patients’ physical behavior and attitude and improved patients’ nutritional and psychological knowledge.
Patient discharge information (PDI) played an important role in decreasing the rate of patients who visit the emergency room and in decreasing the rate of medical errors. In addition, PDI is required to improve the communication between healthcare providers, primary health care, and the patient. Also, PDI acts as a liaison between the physician, family medicine, family, and the patient.

The researcher found that patients in the hospitals in Saudi Arabia lack the primary and important information regarding their health condition. Some patients in hospitals in Saudi Arabia did not know the current diagnosis, and could not list the name of their medications and similarity, they were unaware of medication side effects, dosage, purposes, and instruction. In addition, all patients should know when they have to visit the emergency room and know the correct actions in take in different situations. Also, most patients in hospitals in Saudi Arabia did not receive any health education about their current situation. On the other hand, the researcher found some patients were discharged without their medication and spent all the recovery period without any medication. Some medication was prescribed to women and their babies during breastfeeding period, such as postnatal vitamins and folic acid.

Patients discharge information (PDI) should be provided by all hospitals in Saudi Arabia to promote awareness and wellness among patients, because it serves as access to medical information to patients.

All in-patients in hospitals in Saudi Arabia should receive patient discharge information (PDI) upon discharge from the hospital to home. This patient discharge
information (PDI) should include all required information that patients and their families need. Discharge information should contain:

1. Diagnosis.
2. Treatment.
4. Medication instructor.
5. Normal expected symptoms.
6. Warning signs and what to do.
7. Lifestyle changes.

Hospitals in Saudi Arabia should provide patients discharge information at their hospitals because it is plays an important role to improve patients’ knowledge and improve patients’ healthy behavior and attitudes. These play an important role to increase the awareness among the population and avoid any complications can happen after discharge from the hospital.

**Limitations**

The following limitations were identified in this study:

1. Hospitals lack technology, which means all patients’ files was written by hand. The researcher had a hard time reading the patients’ files because healthcare providers such as doctors and nurses need the files to write in and complete their work. Also, there were only two computers in the department and one small printer. All of this made it hard to type the patient’s discharge information by
computer and to give to the patient before discharge. Sometimes, the researcher recorded information manually.

2. Development of educational materials (treatment) is one of the limitations of this study because of the limited time between patient admission and discharge from the hospital.

3. Time for pre-testing is one of the limitations. Usually, patients only stay in the hospital for three days after a caesarean section procedure and the discharge process only takes a few hours. The researcher had limited time to complete the research process before discharge from the hospital.

**Future Directions**

In future research, the researcher will have to measure the source of patient’s resources and information. In this research, the researcher measured hospitals’ resources, but in future studies would need to measure information sources in the control group to determine where patients get their information from, such as books, friends, or family. The researcher would have to contact the patient at discharge, one week after, four weeks after, and six weeks after because some behaviors and knowledge need a specific time to be measured. Also, the researcher would have to measure the content of patient knowledge to determine if that knowledge is correct.

For example, regarding the signs and symptoms, researcher would have to measure knowledge during the first 10 days because in the first 10 days any chills or fever may mean infection but any fever after that may mean flu or cold. The women’s response in the first 10 days should be “go to the hospital” but after that it should be “take
a fever medicine.” In future research, the researcher should measure that in the first 10 days.

In future research, the researcher would have to measure how the patient discharge information (PDI) can influence healthcare quality and services and how the PDI decreases the rate of emergency visits and medical errors. Also, the researcher would have to measure how the PDI increases the awareness among healthcare providers and how it improves the communication between healthcare providers and patients.

Terms

The following terms were defined to clarify their use in the context of the study:

Health. Health is an adaptation in the environment leading to quality of life, including social, mental, and biological (Greenberg, 1992).

General health education. Health education is any set of intentional activities which are designed to improve health through learning (Tones & Tilford, 1994).

Patient education. Patient education is a set of instructions and educational activities which are designed to increase the patient’s ability to manage personal health. (Lorig, 2001; Wei & Camargo, 2000).

Patient discharge. It is a moment of patient transition from a protective institutional environment to a familiar home environment, in which caregivers are wholly focused on their needs to where they and their family become the primary caregivers (Ben-Morderchai et al., 2010).
**Discharge plans and protocols.** It is one feature of the modern healthcare system which includes procedures for discharging patients from hospital to home (Coffey, 2006).

**Tech-back technique.** It is one of the teaching methods that works to bridge the communication gap between patient and nurse and helps the patient to understand new knowledge and skills (Polster, 2015).

**Discharge instructions.** It is a set of documents which are given to patients and/or guardians upon discharge from the hospital to home for facilitating safe and appropriate continuity of care (Taylor & Cameron, 2000).

**Discharge summary.** It is a set of documents which contain much useful information about the patient based on diagnosis or procedures done in the hospital (Long, 2005).

**Instruction notes.** It is a set of simple instructions written by hand or typed on plain paper without the assistance of any computer programs (Taylor & Cameron, 2000).

**Pre-formatted instruction sheet.** It is a simple instruction written by hand on a pre-formatted sheets (Taylor & Cameron, 2000).

**Information sheet.** It is a pre-printed document that is prepared for the particular illness (Taylor & Cameron, 2000).

**Hospitalists.** The physicians who take care of the inpatients who are unknown to them before admission. Then, this patient returns to a regular physician after discharge (Van Walraven et al., 2002).
**Health literacy.** It refers to the person’s level and capacity to understand basic health information and make appropriate health decision about his/her health situation (Perera et al., 2012).

**Preventing hospital readmission.** It is a national focus on health care reform. It works to improve patient discharge education and to improve clinical outcomes for reducing hospital costs (Agency for Healthcare Research and Quality, 2014).

**Transition care.** It is defined as a set of actions that are designed to improve the coordination and continuity of health care for patients who transfer to another location or to the different level of health care in the same location (Coleman & Berenson, 2004).

**Discharge information checklist.** This is checklist that needs to be provide to patients at the transition time (Agency for Healthcare Research and Quality, 2014).

**The After-Hospital Care Plan (AHCP).** It is a booklet that contains some information patients need to take care themselves when they are discharge from the hospital and back home. Also, prepare the patient for the days between leaving the hospital and first visits appointment with the outpatients’ clinics (Agency of Healthcare Research and Quality, 2013).

**Discharge plan.** It is referring to the document, which was given to the patient and contain the planned treatment course that happened in the hospital and used by patient after leaving the hospital (Agency of Healthcare Research and Quality, 2013).

**Discharge Educator.** Refers to the person who educates and advocates patients in order to prepare patients and caregivers for discharge from the hospital through teaching
the patient about what happens during their hospital stay and what they should do after leaving for home (Agency of Healthcare Research and Quality, 2013).
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APPENDIX A

ORAL SCRIPT, ARABIC VERSION
APPENDIX B

ORAL SCRIPT, ENGLISH VERSION
UNIVERSITY OF NORTHERN IOWA

ORAL SCRIPT

Study Title: Effectiveness of a "Patient Discharge Information" booklet, within the Patient Education Program in Saudi Arabia.

Name of Investigator: Amani Alrebeh

Hello, my name is Amani Alrebeh, and I attend the University of Northern Iowa. You are being contacted in a research regarding "Patient Discharge Information." Right now, I am asking you to partake in an interview survey as an additional part of this study.

"Would you like to continue helping with this study?"

[ ] Yes  [ ] No *Select appropriate box, if the answer is no thank the speaker for their time.

This survey will take approximately 15 minutes of your time. It will consist of questions focusing on your knowledge and opinions regarding the differences between receiving proper discharge materials and receiving none at all. Your participation is completely voluntary, meaning you can stop at any time or not participate at all.

"Are there any questions?"

"Do you agree to continue this survey?"

[ ] Yes  [ ] No *Select appropriate box, if answer is no thank the speaker for their time.

APPENDIX C

ORAL SCRIPT FOR MEDICAL INTERN, ENGLISH VERSION
UNIVERSITY OF NORTHERN IOWA

ORAL SCRIPT

(Medical Intern Student)

Project Title: The Effectiveness of a "Patient Discharge Information" Booklet in Patient Education Program in Saudi Arabia.

Name of Investigator: Amani Al Rebeh

Hello, my name is (name of the medical intern), and I am a medical intern student at Maternity and Children Hospital in Saudi Arabia. You are invited to participate in a research study by Amani Al Rebeh regrading "Patient Discharge Information". Amani Al Rebeh is a doctoral student in Allied Health, Physical Education, and Leisure Services in the University of Northern Iowa in the United States of America. Researcher will provide you with all the details related to research.

"Are you interested to participate in this study"?

[ ] Yes  * if select yes, continue  [ ] No * is select no; thanks to the patient for their time.

I will give her your contact information include your full name and your room number.

"Do you agree"?

[ ] Yes, for this time, Amani Al Rebeh will contact you soon to complete the process
[ ] No, thank the participant their time.

APPENDIX D
جامعة شمل أورا

اللغة الفصحى: العربية

عنوان الدراسة: "دعاء كتاب "معلومات المريض" ضمن برنامج التوفيق الصحي في المملكة العربية السعودية".

اسم الباحثة: إهانة آل ربيع

مرحبًا، أسمى: أنا طبيب متدرب في قسم النساء والولادة. فأن مدعو لمشاركة في دراسة بحثية تتعلق
بالحالة المكتوبة أعلاه. طالب من جامعة شمل أورا في الولايات المتحدة الأمريكية. سوف ترددك الباحثة بجميع التفاصيل
المتعلقة بالبحث المبكر.

"هل تحب أن تشارك في هذه الدراسة؟"

(نعم) (لا) أذكر الحالة المناسبة في حالة اختيار "لا"، أشكر المريض على رده في حالة اختيار "نعم" سوف يتم تزويد
الباحثة بالنموذج الكامل وقمن الجلسة الخاصة بك فقط.

"هل توافق؟"

(نعم) سوف نتعاون بك الاحترام كي أكون المشارك في عملية البحث المبكر.
(لا) أشكر المشارك على وقته.
INFORMED CONSENT FOR EXPERIMENTAL GROUP, ARABIC VERSION

جامعة أبو ظبي MENA. وليست الجامعة الأمريكية
موفقة مسبقة
(المجموعة العربية)

عنوان الدراسة: ممارسة كابتن "العوامل المريض" ضمن برنامج التدريب الصحي في المملكة العربية السعودية

اسم الباحثة: أليسي ريح

تم تعليم المشاركون في هذه الدراسة أنهم يمكنهم الانسحاب في أي وقت أثناء الدراسة، ولكنهم يكونون مسؤولين عن أي تأثير قد يكونون له على النتائج. لا يمكنك إغلاق البيانات الذين تناولت معلوماتهم.

طبيعة الدراسة: فرضنا أن هذه الدراسة هي تجريبي لتجربة بين المرضى الذين تناولوا معلومات التحصيل عند الخروج من المختبر وأيضاً زمناً لا يقلون أي شيء على الأطراف. وفقاً لما ورد في "العوامل المريض" على المريض.

شروط الإجراءات: هذه الدراسة تتطلب حوالي 15 دقيقة من ركبتكم من خلال ثلاث مراحل مختلفة: المرحلة الأولى قبل الخروج من المستشفى. ملاحظاً أنك ستجيب على استماع محدد حول طبيعتك الصحي الحالي. ثم، ستكون لديك طريقة لتطبيق مسرحية صحية كتكنيك تقييم حول طبيعتك الصحي الحالي. المرحلة الثانية سوف تجري بعد الخروج من المستشفى. أخيراً، سعتكم ذلك الإجابة على استماع محدد حول طبيعتك الصحي حالياً. من خلال هذه الدراسة سوف تتوفر أشرطة وبيانات أكثر.

الخطة المhabiّة: نحن نحتاج إلى مساعدة المريض في حالة المحاولة. الخطة المhabiّة للمحاصبات المتنوعة في الأدوية والتشخيصات الصحية. ستتضمن الجملة النتائج في المختبر.

الملاحظات والملاحظات: لا توجد أي معلومات أو ملاحظات خلال مشاركتكم في هذا البحث الحالي من خلال المنهج تأصلها.

النتائج المتوفرة والملاحظات: المشاركون في هذا البحث بذلوا جهودهم لإعداد الأحصائيين على درجات المريض. هذا البحث سيساعد في تحصين الصحة النفسية والصحة العامة للمريض.

الخلاصة: يمكننا أن نستنتج أن هذه الدراسة في حالة سلامة أيضاً في الولايات المتحدة الأمريكية ورسائل الاحتفال بالنتائج. كل المعلومات مربحة من خلال مساعدة، وسنستجيب للمشاركة في جمع البيانات والتجارب والنتائج.

تحت في الرخصة والأساس: المشاركون يمكنهم الرغبة في إعادة الدراسة في أي وقت من الأوقات.

لढود من المعلومات والتحذيرات:

- إذا كان لديك أي أسئلة أو قضايا مع المعلومات حول البحث يمكنكم التواصل على:
  - الباحثة: أليسي ريح
  - رقم الهاتف: 00150702505484
  - البريد الإلكتروني: Arebecca@unm.edu

- مستشارتكم التدريبي في قسم الصحة المجتمع:
  - د. كاثرين زمان
  - رمز الهاتف: 0013192730909
  - البريد الإلكتروني: catherine.zeman@uiui.edu

- مستشارتكم التدريبي في قسم التدريس والتعليم:
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catherine.zeman@uiui.edu

Dr. Rashid Al Mathuk
رقم هاتف: +968091242713260000 أو أرسل رسالة عبر البريد الإلكتروني التالي:
radhi.al-mabuk@uni.edu

ويمكنك أيضا التواصل مع مركز الأبحاث في جامعة شمال أبوا على رقم هاتف 1481927106161840 أو أرسل رسالة عبر البريد الإلكتروني التالي:
anita.gordon@uni.edu

الاتصالات:
قد تم قراءة المعلومات الواردة أعلاه وأنا أدرك تماما طبيعة المشاركة في هذا البحث العلمي والمخاطر التي يمكن أن تنجم عن ذلك. أوافق على المشاركة في هذا البحث واعترف بأنني تلقنت نسخة من بيان الموافقة هذا. عمري 18 سنة أو أكثر.

توقيع المشترك:

التاريخ:

اسم المشترك:

__________________________

توقيع الباحث:

التاريخ:

__________________________

توقيع المشرف:

التاريخ:
APPENDIX F

INFORMED CONSENT FOR EXPERIMENTAL GROUP, ENGLISH VERSION

UNIVERSITY OF NORTHERN IOWA

INFORMED CONSENT

(Experimental Group)

Study Title: Effectiveness of a "Patient Discharge Information" Booklet, within the Patient Education Program in Saudi Arabia.

Name of Investigator: Amani Al Rebeh

You are being invited to take part in a research project conducted by Amani Alrehb, a doctoral student at Allied Health, Physical Education, and Community Services at the University of Northern Iowa. It is required by the University that you give written verification in order to engage in this activity. The information provided below is to help you make a more informed decision whether or not you would like to participate.

Nature and Purpose: Through measuring one's personal knowledge and feelings, the purpose of this study is to assess the differences between patient who receive discharge information when leaving the hospital and patients who do not receive anything at all.

Explanation of Procedures: This study will require approximately 15 minutes of your time; going through three different stages. The first stage is discussing the time before being discharged. I will ask you to answer specific questions about your current health status. During the second stage, I will give you "Patient Discharge Information" booklet. The third and last stage takes place 4 weeks after being released; I will then again ask you a fixed set of questions regarding your health status. Through this study, a medical intern student at the Obstetrical and Gynecology Department will share your name, age, date of birth, phone number, current diagnoses, current treatments, expected complications, the list of discharge medication, and any health instructions with Amani Al Rebeh.

Discomforts and Risks: There are virtually no risks or discomforts within your participation during the research process. Through your entire process, several steps will be taken to protect anonymity.

Benefits and Compensation: Participating in this research gives you an opportunity to benefit others by helping them understand the discharge information. It also has the potential to motivate you to improve personal health, knowledge, and overall attitude.

Confidentiality: The results of this study will be presented in a professional dissertation within the School of Health, Physical Education, and Community Services at the University of Northern Iowa. Any information obtained during the study, which could identify back to you will be kept confidential. All data sheets will be kept in a locked box and only Amani Al Rebeh will have access. All of the information will be destroyed after being submitted and processed. Any findings with no identification may be published in an academic journal or could be presented during a scholarly conference.
Right to Refuse or Withdraw: Participation is completely voluntary. Therefore, you are free to withdraw yourself from the study at any given time. By doing so, you will not be penalized.

Questions/Comments: If you have questions about the study or desire information in the future regarding your participation, you can contact Amani Al Rebeh at (507) 250-5484 or via email Alrebea@uni.edu; the project investigator’s faculty advisor Dr. Cathrin Zeman at the Department of Allied Health, Physical Education, and Community Services, University of Northern Iowa, at (319) 273-7090 or via email catherine.zeman@uni.edu; or Dr. Radhi Al-Mabuk at the department of Education, University of Northern Iowa, at (319) 273-2609, email radhi.al-mabuk@uni.edu. You can also contact the office of the IRB Administrator, University of Northern Iowa, at (319) 273-6148, for answers to questions about rights of research participants and the participant review process.

Agreement:

I am fully aware of the nature and extent of my participation in this project as stated above and the possible risks arising from it. I hereby agree to participate in this project. I acknowledge that I have received a copy of this consent statement. I am 18 years of age or older.

________________________________________  __________________________
(Signature of participant)  (Date)

________________________________________
(Printed name of participant)

________________________________________  __________________________
(Signature of investigator)  (Date)

________________________________________  __________________________
(Signature of instructor/advisor)  (Date)

[NOTE THAT ONE COPY OF THE ENTIRE CONSENT DOCUMENT (NOT JUST THE AGREEMENT STATEMENT) MUST BE RETURNED TO THE PI AND ANOTHER PROVIDED TO THE PARTICIPANT. SIGNED CONSENT FORMS MUST BE MAINTAINED FOR INSPECTION FOR AT LEAST 3 YEARS]
جامعة أبا يعربية.

الولايات المتحدة الأمريكية

موافقة مصرف

(مجموعة التحكم)

تعهد التراخيص: مالية كثرى "النظام المجري" ضمن برنامج التناوب الشرعي في المملكة العربية السعودية.

اسم الباحثة: أنا أربع

تتم دعمك للمشاركة في بحث تجريبي، أحياناً على ظروف ماليةpeg. في التناوب الشرعي، وهو المجمع في جامعة أبا يعربية.

في الولايات المتحدة الأمريكية، كان مخبرًا من الجامعات لأن تمت ملاحظة قبوله في ذلك البحث. يتم توفير المعلومات التالية أدناه لمساعدتك على الحصول على اتفاقيات استياس ما إذا كنت ترغب بالمشاركة.

الخطية، والعلاج، والدواء، والسلام، اللعين لا يتلقون أي شيء على الإطلاق. وتقيد فوائد "النظام المجري" في المريض.

شرح الإجراءات: هذه الإجراء تتمثل بحوالي 15 دقيقة من وقتك من خلال ممارسة مكانتين. المرحلة الأولى قبل الخروج من المستشفى.

تتطلب منك أن تجيب على أسئلة محددة حول وصفة المريض. المرحلة الثانية سوف تجري بعد الخروج من المستشفى. في أسلوب وسيلة مبدلة الإجابة على أسئلة محددة حول وصفة المريض. من خلال هذه الإجراء، سوف تتمكن من تقييم وصقل، بما في ذلك، معلوماته، الملاحظات، المضاعفات المتبقي، والتقييمات السابقة.

ال.Join-

الملاحظات الصحية، من خلال ملاحظة، أو أن يكون في القسم.

الملاحظات الصحية: لا توجد ملاحظات أو مضاعفات خلال مشاركتك في هذا البحث، للحالة. من خلال الحالات، وبكما.

سيتم الإفصاح عن جميع المعلومات لحالة المرض.

الفوائد والتهديدات: المشارك في هذا البحث، يتلقى فوائد في هذه الأبحاث، من خلال مساعدة الأشخاص على قيم

المريض. هذا البحث يعمل على تحقيق تقدم في الصحة الصحية، والتوجه، والموافق المام.

السرية: سنقوم بتقييم نتائج هذه الاختبار في حالة لاحقة، وسنقوم بتقييم الأدوات اليومية، في حالة الاختبار. ستقوم كل المعلومات مغنية وقيد التدقيق، وما يمكنها، ما يمكن تقييم النتائج، بدون تلخيص في مقالة.

التحقيقات والأبحاث: المشارك في هذه الأبحاث، للحالة. بالإضافة إلى العلم، من هذه الأبحاث في أي وقت من الأوقات.

تغذية النصوص والاستشارات:

إذا كان لديك أي أسئلة أو طلبات، بالحصول على مزيد من المعلومات حول البحث، يمكنك الاتصال بنا على:

الخطية: أنا أربع

رقم الهاتف: 0015072505458

أو إرسال رسائل عبر البريد الإلكتروني التالي: Alrebea@uni.edu

مستشارة هيئة التدريس من قسم صحة المجتمع:

Catherine Zeman

رقم الهاتف: 001 (319) 273-7090

أو إرسال رسائل عبر البريد الإلكتروني التالي: Alrebea@uni.edu
catherine.zeman@uni.edu

Dr. Radhi Al Mabuk

رقم الهاتف: 
(319)273-2609

أو ارسال رساله عبر البريد الإلكتروني التالي:
radhi.al-mabuk@uni.edu

ويمكنكم أيضًا التواصل مع مركز الأبحاث في جامعة شمال أيروبا

رقم الهاتف: 
(319)271-6148

أو ارسال رساله عبر البريد الإلكتروني التالي:
anita.gordon@uni.edu

الأخلاقي:

قد تم قراءة المعلومات الواردة أعلاه وأنا أدرك تماماً طبيعة المشاركة في هذا البحث العلمي والمخاطر التي يمكن أن تنتج عن ذلك. أوافق على المشاركة في هذا البحث وأعترف بأنني تلقبت نسخة من بيان الموافقة هذا. عمري 18 سنة أو أكثر.

توقيع المشترك: ___________________________ تاريخ: ___________________________

اسم المشترك: ___________________________

توقيع الأبحاث: ___________________________ تاريخ: ___________________________

توقيع المشرف: ___________________________ تاريخ: ___________________________
APPENDIX H

INFORMED CONSENT FOR CONTROL GROUP, ENGLISH VERSION

UNIVERSITY OF NORTHERN IOWA

INFORMED CONSENT

(Control Group)

Study Title: Effectiveness of a “Patient Discharge Information” Booklet, within the Patient Education Program in Saudi Arabia.

Name of Investigator: Amani Al Rebeh

You are being invited to take part in a research project conducted by Amani Al Rebah, a doctoral student at Allied Health, Physical Education, and Community Services at the University of Northern Iowa. It is required by the University that you give written verification in order to engage in this activity. The information provided below is to help you make a more informed decision whether or not you would like to participate.

Nature and Purpose: Through measuring one’s personal knowledge and feelings, the purpose of this study is to assess the differences between patients who receive discharge information when leaving the hospital and patients who do not receive anything at all.

Explanation of Procedures: This study will require approximately 15 minutes of your time; going through two different stages. The first stage is discussing the time before being discharged. I will ask you to answer specific questions about your current health status. The last stage takes place 4 weeks after being released; I will then again ask you a fixed set of questions regarding your health status. Through this study, a medical intern student at the Obstetrical and Gynecology Department will share your name, age, date of birth, phone number, current diagnoses, current treatments, expected complications, the list of discharge medications, and any health instructions with Amani Al Rebah.

Discomforts and Risks: There are virtually no risks or discomforts within your participation during the research process. Through your entire process, several steps will be taken to protect anonymity.

Benefits and Compensation: Participating in this research gives you an opportunity to benefit others by helping them understand the discharge information. It also has the potential to motivate you to improve personal health, knowledge, and overall attitude.

Confidentiality: The results of this study will be presented in a professional dissertation within the School of Health, Physical Education, and Community Services at the University of Northern Iowa. Any information obtained during the study, which could identify back to you will be kept confidential. All data sheets will be kept in a locked box and only Amani Al Rebah will have access. All of the information will be destroyed after being submitted and processed. Any findings with no identification may be published in an academic journal or could be presented during a scholarly conference.

Right to Refuse or Withdraw: Participation is completely voluntary. Therefore, you are free to withdraw yourself from the study at any given time. By doing so, you will not be penalized.
Questions/Comments: If you have questions about the study or desire information in the future regarding your participation, you can contact Amani Alrebeh at (507)250-5484 or via email at Alrebea@uni.edu; The project investigator’s faculty advisor Dr. Catherine Zeman at the Department of Allied Health, Physical Education, and Community Services, University of Northern Iowa, at (319) 273-7090 email catherine.zeman@uni.edu; or Dr. Radih Al-Mabuk at the department of Education, University of Northern Iowa, at (319) 273-2609 email radih.al-mabuk@uni.edu. You can also contact the office of the IRB Administrator, University of Northern Iowa, at (319) 273-6148 email anita.gordon@uni.edu, for answers to questions about rights of research participants and the participant review process.

Agreement:

I am fully aware of the nature and extent of my participation in this project as stated above and the possible risks arising from it. I hereby agree to participate in this project. I acknowledge that I have received a copy of this consent statement. I am 18 years of age or older.

(Signature of participant)                  (Date)

(Printed name of participant)

(Signature of investigator)                 (Date)

(Signature of instructor/advisor)          (Date)

[NOTE THAT ONE COPY OF THE ENTIRE CONSENT DOCUMENT (NOT JUST THE AGREEMENT STATEMENT) MUST BE RETURNED TO THE PI AND ANOTHER PROVIDED TO THE PARTICIPANT. SIGNED CONSENT FORMS MUST BE MAINTAINED FOR INSPECTION FOR AT LEAST 3 YEARS]
CONFIRMATION OF PHYSICIAN REGARDING PATIENT DISCHARGE INFORMATION

CONFIRMATION OF PHYSICIAN
PATIENT DISCHARGE INFORMATION

Amani Al Rebeh wrote this postpartum discharge information. I have read through the Postpartum Discharge Information regarding my patient and found that all information is correct and ready to use for the patient, as a part of Al Rebeh’s doctoral dissertation.

Printed name of primary physician (OB-GYN):


Signature of primary physician (OB-GYN):

X

Date: ______________

X

Investigator
Amani Al Rebeh

Date: ______________
CONFIRMATION OF MOTHER'S DISCHARGE INFORMATION

Amani Al Rebeh has discussed the Postpartum Discharge Information with me and I acknowledge and understand this information. I also have received a copy of this information packet.

Printed name of participant:

____________________________________

Signature of participant: __________________________

Date: __________________________

Signature of investigator: __________________________

Date: __________________________
APPENDIX K

CONFIRMATION OF PARTICIPANTS REGARDING RECEIVED DISCHARGE INFORMATION, ARABIC VERSION

جامعة شمال أبا

تاكيد استلام المرجع للعلومات

قد تبكيت مالم إل ريح المعلومات التقرير بعد الولادة معي وأنا أبي فيهما هذه المعلومات وقد حصلت علي نسخة من هذه المعلومات

اسم المشارك:

________________________________________________________________________

توقيع المشارك:

________________________________________________________________________

في تاريخ: __________________

توقيع الباحث:

________________________________________________________________________

في تاريخ: __________________
APPENDIX L

TELEPHONE CONSENT, ENGLISH VERSION

UNIVERSITY OF NORTHERN IOWA INFORMED
TELEPHONE CONSENT

Study Title: Effectiveness of a “Patient Discharge Information” booklet, within the Patient Education Program in Saudi Arabia.
Name of Investigator: Amani Alrebah

Hello, my name is Amani Alrebah, and I attend the University of Northern Iowa. You are being contacted because of previous participation in a research regarding “Patient Discharge Information.” Right now, I am asking you to partake in a phone survey as an additional part of this study.

“Would you like to continue helping with this study?”
[ ] Yes [ ] No *Select appropriate box; if the answer is no thank the speaker for their time and move along to the next caller.

This survey will take approximately 15 minutes of your time. It will consist of questions focusing on your knowledge and opinions regarding the differences between receiving proper discharge materials and receiving none at all. Your participation is completely voluntary, meaning you can stop at any time or not participate at all. If you agree to the terms, you have the right to answer only the questions you are comfortable with. If you start to feel uncomfortable in any way, you may choose to stop in this study. Any information you give, regarding personal and private health information will be kept completely confidential. If there are any questions or comments, feel free to call Amani Alrebah at (507)2505484 or the office of the IRB Administrator at the University, at (319)2736148.

“Are there any questions?”

“Do you agree to continue this telephone survey?”
[ ] Yes [ ] No *Select appropriate box; If the answer is no thank the speaker for their time and move along to the next caller.
جامعة أوا الشمالية

موافقة الهاتف

عنوان الدراسة: "العلومات المرتبطة" ضمن برنامج التدريب الصحي في المملكة العربية السعودية.

اسم المشارك: أمازي الريح

مرحبًا، أسمى أمازي الريح من جامعة أوا الشمالية في الولايات المتحدة الأمريكية. تم الأتصال بك بسبب مشاركتك السابقة في البحث المرتبط بتفاصيل المرتبطة في الوقت الحالي. تطلب منك المشاركة في استماع الهاتف بإعدادها جزءًا إضافيًا من هذه الدراسة.

هل ترغب في الاستمرار في هذه الدراسة؟

نعم   لا (إذا كان الجواب بالنفي) شكراً وصحيحة.

إذا كان الجواب بنفي أو لا، سوف يتم اتخاذ القرار النهائي.

سوف يتم اتخاذ القرار النهائي.

هل لديك أي أسئلة؟

نعم   لا (إذا بالإيجاب).

شكرًا لكما!
## APPENDIX N

### PATIENT DISCHARGE INFORMATION (PDI), ENGLISH VERSION

<table>
<thead>
<tr>
<th>Patient name</th>
<th>Date</th>
<th>Patient Discharge Information (PDI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Discharge Information (PDI)</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Patient Name:**

**Age:**

**Date of Birth:**

*This model provides you with the initial instruction about your medical care. Please keep this form and take it with you in case you need more medical care.*

**You were examined by Drs.:**

**specialist:**

**Your diagnosis:**

**Expected course of the illness:**

**Potential complications which may occur:**
<table>
<thead>
<tr>
<th>Medication prescribed</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name of medication</strong></td>
<td><strong>dosage</strong></td>
<td><strong>frequency</strong></td>
<td><strong>purpose</strong></td>
<td><strong>Side effects</strong></td>
</tr>
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</table>

**Recommendation:**

**Extra Information:**

**Return to the emergency department if:**

<table>
<thead>
<tr>
<th>Follow-up</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date:</strong></td>
<td><strong>Department:</strong></td>
<td><strong>Phone #:</strong></td>
<td></td>
</tr>
<tr>
<td>Patient name</td>
<td>Date</td>
<td>Patient Discharge Information (FDI)</td>
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</tr>
<tr>
<td>--------------</td>
<td>------</td>
<td>------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>

This information was given by:
Amani Al Rebeh
University of Northern Iowa
Allied Health, Physical Education, and Community Services.
Contact Phone #: (307)250-5484
E-mail: Alrebea@uni.edu

I agree that I have received and understood all the information above.

Patient name:

Sign: ____________________________.
Date: 
Time: 

I have read through the Patient Discharge Information regarding my patient ______ and found that all information is correct and ready to use for the patient, as a part of Al Rebeh’s doctoral dissertation.

Physician name:

Sign: ____________________________.
Date: 
Time: 
<table>
<thead>
<tr>
<th>اسم المريض:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>العمر:</td>
<td></td>
</tr>
<tr>
<td>تاريخ الولادة:</td>
<td></td>
</tr>
</tbody>
</table>

هذه النموذج يوفر لك المعلومات الأولية حول الرعاية الطبية الخاصة بك. يرجى الحفاظ على هذا النموذج وأدخله في حالة كنت بحاجة إلى مزيد من الرعاية الطبية.

فحص من قبل الطبيب: 

أخصائي:  

تشخيص هو:  

العلاج المتوقع لحالة المريض:  

المصاعفات المتوقعة:  

1
<table>
<thead>
<tr>
<th>الأعراض المصاحبة</th>
<th>العرض</th>
<th>الجرعة الارمية</th>
<th>اسم الدواء</th>
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</tr>
</tbody>
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**نوعيات أخرى:**

**معلومات إضافية:**

العودة إلى قسم الطوارئ في حالة:

<table>
<thead>
<tr>
<th>المراجعه</th>
<th>رقم الهاتف:</th>
<th>في قسم:</th>
<th>تاريخ المراجعة:</th>
</tr>
</thead>
</table>
هذه المعلومات أُعطيت من قبل:
الباحثة: أماني الريح, دكتوراه في التنقية الصحي وصحة المجتمع, جامعة شمال إفريقيا. الولايات المتحدة الأمريكية.
للتوصل على هاتف رقم : 00150725054800
أو إرسال رسائل عبر البريد الإلكتروني التالي: Alrebea@uni.edu

أقر أنا الموقع أدناه بانتيا قد استلمت وفهمت جميع المعلومات أعلاه.

الاسم:
التوقيع:

أقر أنا الطبيب أدناه بانتيا قرأت جميع المعلومات أعلاه بخصوص المريض وآخره على صحتها.

اسم الطبيب:
التوقيع:

التاريخ:
الوقت:
مابعد الولادة القيصرية

اعتماد: أماني الريح
مرشحة دكتوراه
قسم الصحة، الصحة البدنية، و خدمات الترقية
جامعة شمال أبوا

Amani M Al Rebeh
المقدمة
أشارات الخطر
العلامات المنترقة بالخطر
العنابة بالنتج
تهيج المنتهل و الروح
العنابة بمنطقة الفرح
البول
الجوف
النشاط البصري
العنابة بجرح الولادة القصيرة
العنابة بالعنابة...
الأدوية والعلاجات
النشاط الجنسي
التدخين
كأية الولادة
فحص ماء الجلاد الولادة
تعليقات أو تعليمات أخرى
المراجع
مقدمة

بسم الله الرحمن الرحيم

وهي تسمى...

بناءً على رؤية 2030 للمملكة العربية السعودية وعلى هدف خادم الحرمين الشريفين الملك سلمان بن عبد العزيز آل سعود حفظه الله "هدفي الأول أن تكون بلادنا نموذجاً ناجحاً ورائداً في العالم على كافة الأصعدة، وسأعمل معكم على تحقيق ذلك"، أقدم كنيبي التقني في هذا الكتيب مجموعة ملهمة لكل المقيمين والمقيمات على المملكة العربية السعودية، حيث يوفر تفاعلاً دقيقاً مدعوماً بالصور لتسهيل قراءتها وفهمها، كما إنه موجه بالكثير من النصائح المفيدة والمهمة للأم الجديد والمولود، أيضاً، هذا الأصدار يعتبر بداية جيدة لكل أمم مقبلة أو أقلت على المملكة العربية السعودية، وقد صمم هذا الأصدار حرفاً لتم استخدامه كمرجع تعليمي لرعاية مجانًا في مستشفيات المملكة العربية السعودية.

قبل تنفيذ هذا الأصدار، لقد تلقيت درجة الدكتوراه في علوم التمريض، كما أنني حصلت على درجة الماجستير في التمريض الصحي، واستفدت من جميع مؤهلاتي الجامعية في تزويد هذا الكتيب بالمعلومات الأساسية.

يهدف هذا الكتيب نحو تحقيق رؤية 2030 للمملكة العربية السعودية، من خلال إنتاج المعلومات والمصادر للشعبي، ليتبع خطط صحية مناهز، يساهم هذا الكتيب التعليمي بدور زيادة الوعي الصحي لدى المرأة، والتوعية بالصحة والعافية في النومية والعقلية حيث يوفر جميع متطلباتها جسدياً وفوقاً من دون النهج إلى مساعدة المختصين في المتطلبات الطبية والطبية. ويدفع آمناً فحققنا رؤية 2030 "نعم أفراد نمطم جراح صحي، ومحيط نغيم العيش في بيئة إيجابية وجميلة".

هذا الأصدار من إنتاجي إلى أماني الربيع وبريشة الدكتوراه في التمريض وتطويري الصحي من جامعة شمال أوروبا في الولايات المتحدة الأمريكية، وناهض الأصدار الأول، فإنها في ساحة الدكتوراه تمكناً من خذ الأمل من خلال

ال Dra. Rebaa@uni.edu

أتمنى أن تتقبل هذا الكتيب على رضاكم ويكون له دور فعال في مجال التطور الصحي في المملكة العربية السعودية.

أهدي هذا العمل بالموقف إلى والدي ووالدتي حفظهما الله إلى زوجي العربي، إلى كلًا من أفياء وليفن، إلى كل أفراد أسرتي، إلى كل الأمهات والأمهات، قررت أفتتحي قناة في عربتي، إلى كل من جاهد في مساعدتي، إلى كل من ساهم في تلقائي ولو في حياتي الدراسة.

مرشحة الدكتوراه:

أميني الربيع
تعيش المرأة لحظةً من أجمل حبات حياتها عندما تلد طفلًا سليماً معاقوًا. ومع أنّ العناية بالمولود تستغرق أكثر قدرًا من اهتمام الأم، لكن من المهم أيضًا أن تنتبه إلى العناية بنفسها بعد الولادة. تُدعى الفترة الزمنية التي تلي الولادة باسم مرحلة ما بعد الولادة، وخلال هذه المرحلة، يعود حسمُ الأم إلى حالة الطبيعة طبيعيًا فشيئًا. لكن من الممكن أن تعبر لدى الأم مضاعفات بعد الولادة، وهنا نحن نằm في أهمية معينة ما يمكن اعتباره طبيعياً، وما يمكن اعتباره معقولًا وغير طبيعي من بين تلك الأعراض، يساهم هذا البرنامج التنفيذي في تكون فهم أفضل لمراحل ما بعد الولادة.

وهو يشرح ما يمكن أن تعني المرأة لإعاقة جسمها على التدفق جيدًا، وهو يتناول ما يجب أن تتوفره المرأة، ومن ثم يكون عليها أن تستشير طبيها.

إذا كان لديك أي علاقة من علامات المضرة بالخطر، يرجى زيارة:

______________________________
______________________________
______________________________
مع كلّ التغيّرات التي تصيب الجسم بعد الولادة، يصبح من المهم أن تعرف المرأة متى يكون عليها أن تصل بعيوبها. لا بدّ من استشارة الطبيب إذا طهرت أيّة علامات من العلامات التالية:

- درجة حرارة تعادل 38 درجة مئوية أو فشغيرة في الجسم
- مناطق أو خطوط ساخنة أو مؤلمة أو حمراء على البُدن.
- نشف الحلمين ونزفهما
- نزف مهبل غزير أو خروج خزازات كبيرة الحجم و إذا تثبّت الموظفة النسائية تمامًا
- مرتبين خلال أقل من ساعة.
- مفررات مهبلية ذات رائحة كريهة
- آلام أو انفجار أو حساسية للبُطن في الساق أو الفخذ
- آلام شديدة في البطن (إذا بعض التقلّصات أمر طبيعي)
- كثرة الحاجة إلى البول مع صعوبة أو آلم وكعبات قليلة من البول.
- إمساك يستمر أكثر من ثلاثة أيام.
- إحمرار مناطق الشّفوق الجراحية أو تورمها أو خروج مفررات منها
- إكتئاب شديد أو كأنّها لا تزال.

- إعماء.
قد يتورم الكلى والمرأة بعد الولادة بسبب امتصاصهما بالطين لفترة متأخرة عن يوم بعد الولادة، إذا
قُدرت المرأة عدماً الماء، وبدلاً منها تعريه، فهناك طرقًا يمكن استخدامها لوقف إنتاج الطين.
. يجب أن تزداد المرأة من خلالده من تسلل شرية وداحة طول الحفر، ورجوعه من أجل إقلاع إنتاجه في
. حالة عدم الإفراط من التسقابل.
. صحيح أن الطين يقلل من إنتاج الطين، لكيه يُؤدي إلى إنتاج مزيد من الطين.
. ومن أجل تجنب الإفراط الناجم عن امتصاص الدخان من غير إحراز الحليب، تمني يمكن استخدام أكياس من اللح أو الاستخدام بما دافئ لتقاسم الإحساس بالضغط في الطين.
. إذا قُدرت المرأة أن تُرضى ولها:
. فعليها أن تبدأ ذلك في أن يكون ممكناً، لأن هذا يعرض إنتاج الحليب.
. إذا أحتوي الأذان فالممكّن أن تضع المرأة عليها أو تحت الإطباء مصنفة دائمة أو "رضاة
. "شفط" للمساعدة على تدفق الحليب بسهولة.
. ومن الممكن أيضاً أن يحدث تسرّب للطين بعد الولادة، لا يمكن فعل أي شيء لوقف
. هذا التسرّب. لكن استخدام الرّوافق المضادة الجسيمي يُوضع على التداني في هذه الحالة، يفيد في
. محذور الرّوافق، ويعيد الإنتاج بعد استخدام الرّوافق، أو وسائل المساعدة التي تجوي
. مواد للاستكشاف، مما يجعلها مثلى ولد كل رضاعة.
. في هذه الحالة، لا بدّ من استشارة الطبيب، لكن لا يجب توقف الإنتاج في هذه الأحوال
. لأنّ استمرار حرارة الحليب في قنوات الحليب الممكّنة بالعوامل للمساعدة على تضبطها، ولا تُبقي
. أيّ ضرّ بالطفل.
. يجب أن تتمتع المرأة على أن تكون أية أدوية، حتى إذا كانت تُدمج من غير وضعية طبيّة، إلا إذا وافق
. الطبيب على ذلك، لأنّ من الممكن أن تمرّ المواد الدوائية في الطين عبر الحليب.
تغيرات المهبل والرحم

بُرمَ المهبل والرحم تغيرات في أثناء مرحلة تعافي الجسم بعد الولادة الطبيعية أو الفطرية، ومن العلامات التي تظهر علالة المهبل والرحم:

- تظهر مفرزات مهبلية بعد الولادة، وتستمر نحو ستة أسابيع، و تكون هذه المفرزات كثيفة، ولها لون أحمر فاقع خلال يومين إلى خمسة أيام بعد الولادة، وبعد ذلك يصبح لونها وردياً أو بنياً إلى اللون الأصفر أو بدون شفافية للاعسر استخدام الذكاء المهبلية خلال هذه الفترة، لأنها تزيد من خطر الإصابة بالعدوى.

- يمكن أن يحدث تباع ذو لون أحمر فاقع من وقت لأخر، وهذا شيء طبيعي، لكن زيادة البرز قد تعني وجود الحصوات على مزيد من الزائدة.

- من الممكن أن تخرج أيضاً بعض اللحظات أو الجسيمات الدموية، وهذا أمر طبيعي ما دام أنها ليست كثيرة أو كبيرة الحجم، أما إذا شيَّقت النفوذ الانتصابي وجد أنه أقل من ساعة، أو إذا كان حجم الخراجات الدموية أكبر من حجم كرات العرق، فعلي المرأة أن تراجع الطبيب.

- من الممكن أن تجري خيطة شفقة العملية القطرانية بوجود قليلة للدوزن، أو بمشابك جراحية تزال فيما بعد. يُنصح الطبيب بإجراء المرأة على كيفة العناية بالشفق الجراحية فيما بعد.

العناية بمنظمة الفرج

إن الاهتمام بالنظافة مسألة في عالي الأهمية، يجب المحافظة على تنظيف المنطقة بمسحها جيداً عند استخدام المرحاض، ولمنع حدوث العدوى. يجب أن تسمح المرأة فرجة من الأمام باتجاه الفرج بعد استخدام المرحاض، ولا يجب تكرار نزيف الفرج بالمتدى نفسه، بعد نزيف.
منصب الولادة البصرية

منطقة التمثيل، كما يجب استخدام تبضع مائي لتتنظيف تلك المنطقة بعد كل استخدام للمحاسم. واستخدام قوة نسائية سخية جيدة بعد كل استخدام للمحاسم.

النبول

إنّ للحمل والولادة تأثيرًا في المتابعة أيضاً. بعد اليوم الثاني أو الثالث من الولادة سوف يزيد التبول أكثر من المعتاد وهذا أمر طبيعي. على الأم أن تتناول الكثير من الامساك بعض البديلة للكنوزة في الإصابة بالجاف.

التحوط

بعد طول الأمسال والواسع مشكلة شائعة بعد الولادة البصرية. هما هما جهد الأمسال في طول الامساك. لكن الأكثير من الماء والاتسهام المنيا بالألوان، كالقليلات والحرارة والجروح الكامنة، مفيد في الوقاية من الأمسال. كما أنّ كُلّ الحركة مفيدة في منع حصول الأمسال أيضاً. إذا استمرّ الإمساك عند المرأة بعد الولادة، فمن الممكن أن تتداخل ملئيات أو مساعدة بّاع من غير وصفة طبّية. لكن من الأفضل استشارة الطبيب قبل تتناول أيّ أدوية.

النشاط البدني

. يجب أن تتواجد الأطراف أكبر قسم ممكن من الراحة بعد الولادة. قد تجد الأمّ أنها لا تفعل شيئًا إلا الأكل والنوم والمهام اليومية مع وظيفتها وهذا أمر طبيعي.

. يجب أن تُكلّر المرأة من الاستراحة و في أثناء قيامها بأي تنشيط جسدي بعد الولادة قد تتفاجأ لمبتعًا إحساسها بالتعب والإرهاق. لكن هذا أمر طبيعي. ولذلك، عليها أن تتواصل الاستراحة في أثناء يومها.

. على الأم أن تزيد مستوي تشاطها البدني على نحو طبيعي حتى تصل إلى مستوى الروتين السابق. لكن علينا أن نتبنّى عن رفع أو دفع أو سحب أي جسم قبل فترة تعود من أسبوعين إلى سبعة أسابيع بعد الولادة. يجب أن تبدأ الأمّ إلى مهراءة وصعوبة الذهاب إذا كانت قد أجريت
تابع جرحك يومياً، وابحثي في منطقة الجرح على أي علامة من علامات العدو، مثل الإحمرار والتورم أو جروح أي سائل من مكان الجرح، أو حدوث ارتفاع في درجة حرارةتك عن 38 درجة مئوية أو زيادة الألم في منطقة الجرح. وفي هذه الحالة علبي بجرحك في المستشفى، ولا استخدم الماء الدافئ، وتبني تدليك أو قيه، ولكن لاحظ أنه في البداية لا تعالج ذلك حتى تذهب للطبيب، وواحدة إذا وجد شرط لاصح. 

نقطة على مكان الجرح حاف وطيف، وتأكد من تغطية بقعة من الشاش إذا كانت الملاصق تسبب الحكة مكان الجرح، لكن لذلك لإعطاء الشاش يومياً.

امتصح جرحك خلال أول 5 أسابيع بكمكة استخدام كريم مزيف لتفتيح موضع الجرح، ولا تصح أن الانتظام المائي للتجربة يستغرق حوالي 6 أشهر، تصفح المحيط الجراحية من نفسها خلال 2 إلى 6 أسابيع أو يتم تحديد موعد من قبل الطبيب المعالج لألزامها.
التعشية

بعد الولادة، يكون التغيير في نظام الطبيب أمرًا مهمًا حتى أن النظام الغذائي الشامل. إن تغيير الأطعمة الذي تؤثر في المولود أيضًا إذا كانت الأم ترضع من تدبيرها. لا يوجد أن تغيير الأطعمة التي تتناولها الأم من غير استشارة الطبيب. وعلى الأعداء أن يستمر على النظام الغذائي الصحي الذي كانت تسير عليه في أثناء الحمل.

إذا اتبعت نظام غذائي متوازن يساعد الأم على تخفيف وزنها، والعودة إلى وزنها قبل الحمل في أسرع وقت. على الأعداء أن تتناولوا الكثير من الماء لتفادي الإصابة بالإمساك وتتناول الأطعمة القوية والألياف حيث أن السعرات الحرارية بعد الولادة حدود إمساك، لكن إذا استمر الأمر استشرط طبيب لأخذ بعض الأدوية المناسبة.

إذا كانت الأم ترطبوماً وليست تغذية، فيمكن أن تشير تشير إلى ارتفاع. يجب سؤال الطبيب إن كان على الأم أن تستمر في تناول الفيتامينات التي كانت تتناولها عند فترة الحمل. يقترح بعض الأطباء التوقف عن تناول هذه الفيتامينات أسبوعاً واحداً قبل العودة إليها من جديد وذلك لتقليل الإصابة بالإمساك.

الأدوية والعلاجات

أعراض الفيتامينات والهيدروكستات

يصبح تناول أعراض الفيتامينات والهيدروكستات إلى ما بعد الولادة. أن أثارها الجافة: قد تتسبب بعض الأدوية في تناولها بعد أسبوع من الولادة. فمن الممكن أن تتناول مثلاً أدوية تخفيف الإمساك.

الناطق: 3

أدوية تخفيف الألم وقد تسبب العواص أو التورم والامساك.

هيدروكستات: دواء لتخفيف الألم. قد يتسبب الاضطرابات في المعدة وأماسك. يجب التوقف عن تناول هذا الدواء إذا كان لديك مشاكل فرحة أو أعراض البراز.
ويتصبح الأطباء عادة بالانتظار فترة من أربعة إلى ستة أسابيع قبل الودودة إلى ممارسة الجنس، حيث تسمح هذه الفترة بعودة عَلْق الدماغ إلى وضعه الطبيعي وتوقف الهرمونات وشفاء الجروح والتنزف. ومن الممكن أن يؤثر كلاً ما بعد الولادة والتهيجات التي تطرأ على الجسم في مقدار الرماد اللازم حتى تشعر المرأة بالإستعداد لممارسة الجنس.

التدخين

تردان مخاطر إصابة الأطفال الرضع عند تعرضهم للدخان السجائر بالاضطرابات التالية، ومن بينها:

- الإسهال الرئوي
- الزو
- جداً العيون
- عدوى الجيوب الأنفية
- إلتهاب الشعب الهوائية
- إلتهاب العين
- الخناق (إلتهاب في التنفس يتميز بالرطوبة وضيق التنفس)
كيابة الولادة

من الممكن أن تؤدي التغيّرات المفاجئة في مستويات الهرمونات بعد الولادة الطبيعية أو الفصبة إلى ما يُعرف باسم "كيابة الولادة". وهي تستمر عدّة أيام وقد تصل إلى أسبوعين. وفي هذه الفترة، يُسمى الكليّة في البداية بعد الولادة ويعتبر عادة بعد أسبوعين. تُعتبر هذه الحالة جزءًا من علامات الولادة.

في حالة ما بعد الولادة، ستكون جماعة أولئك الذين يُشكون من الوعاع أو أعراض الولادة. ويعتبر المرضinvertible لتكون كليّة، لكنه قد يسبب الأعراض والأعراض، ومن أعراضها إكثار ما بعد الولادة، زحول

العلاج.

معظم الولادة، يتم تجنب الوعاع أو أعراض ما بعد الولادة عند تنفيذ إجراءات الطبيب.

فحص ما بعد الولادة

الطيبيّة للمرأة عالية، فحص ما بعد الولادة وحدها، في حالة ما بعد الولادة، يتأثر الطبيب من أن المرأة تعاني وتشقى، وفي حالة ما بعد الولادة.

فحص المهبل والرحم، وحقل الرحم، كما قد يجري الطبيب أيضًا فحصًا للطبيب إضافة إلى فحص ضبط الدم والجهاز من الوزن.

فحص ما بعد الولادة، تعني الولادة، عند مراحل الطبيب هذه بالنسبة لمتى إلى ما يُعد المرأة معركة من سوء حالة وسلامة من النساء. وفي هذه المرحلة، يمكن أن تكون لدّاها، وهذا ما يشمل الصحة الجنسية والنفسية أيضًا. لا تسمح أن تجاهل هذه المعرفة مع الطبيب من أنها تسمح بمعرفة مدى شفاء المرأة ويعتبر ذلك بعد الولادة، ولكنها تسمح للأمه أيضًا بروية كيفية التعاملان والتعامل مع حياتها الجديدة بعد أن سارت أثناه.
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</tbody>
</table>

المراجع


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مابعد الولادة القيصرية

بواسطة:
أماني الريح
مرشحة الدكتوراه
خدمة الصحة. الصحة البدنية. وخدمات الولادة
جامعة شمال أيرلندا
After Caesarean Section

By: Amani Al Rebeh

University of Northern Iowa
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Amani M Al Rebeh
AFTER CAESAREAN SECTION

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INTRODUCTION

In the name of God, the Most Gracious, the Most Merciful

By using...

Based on the vision of 2030 for the Kingdom of Saudi Arabia and the goal of the Custodian of the Two Holy Mosques, King Salman bin Abdul-Aziz Al Saud, "My first goal is to be a successful and pioneering model in the world at all levels and I will work with you to achieve this." This educational booklet is a reference guide for all those who have come to Caesarean section, providing accurate details, supported by pictures, for easy reading and understanding. It is also equipped with many useful and important pieces of advices for the new mothers and newborn babies as well. This release is considered a good start for every woman who came to her or came to Caesarean delivery. This version is designed to use as a free educational reference in the hospitals of Saudi Arabia.

Before writing this, I received a bachelor's degree in nursing science. I also earned a Master's degree in Health Education. I benefited all my university qualifications to providing this booklet with basic information.

This booklet aims to achieve the Vision 2030 of the Kingdom of Saudi Arabia by providing information and resources to the people to follow a balanced health pattern. This educational booklet contributes to raising women's health awareness and promoting physical and mental health and wellness. In addition, it helps women to understand all the requirements of their bodies by themselves without any assistance from specialists, especially in critical and emergency situations. By doing so, I have achieved the vision of 2030 "a healthy lifestyle and an environment that allows you to live in a positive and attractive environment."

This version belongs to the EdD. candidate in Allied Health, Physical Education, and Leisure Services from the University of North Iowa in the United States of America. As the first release, I would be happy to receive your comments, suggestions, and advice to develop this booklet for the best through Email me at Alrabea@uni.edu.

I hope that this booklet will receive your satisfaction and will have an active role in the field of health development in the Kingdom of Saudi Arabia.

I dedicate this humble work to my father, my mother, my dear husband, my son (Faris) and my daughter (Lama). To all my family members and my friends, and to all those who worked hard to helping me.

EdD. Candidate,

Amani Al Rebeh
The happiest moments of a woman's life are when they give birth to a healthy child. Newborn care attracts the greatest attention from the mother. It is very important for women to pay attention to their own health after birth. The postnatal period is the time after the birth. During this phase, the mother's body returns to normal and there may be some health complications. It is very important for mothers to know what could be considered normal and what can be considered disturbing and unnatural among those symptoms. This educational program contributes to a better understanding of post-birth. It explains what women can do to help their body recover. It addresses what to women should expect, and when women should consult a doctor.
You have to call your doctor or visit the emergency room if you have:

- Chills or fever greater than 100.4°F.
- Severe pain or redness in the breast area.
- Cracked or bleeding nipples.
- Vaginal bleeding: heavy, bright-red bleeding, or more than two pads in one hour.
- Vaginal discharge with a foul odor.
- Any redness, swelling, tenderness, or pain in calf or thigh area of your leg.
- Severe abdominal pain (some contractions are normal).
- Difficulty or pain when you urinate with only small amounts of urine.
- Constipation for more than three days.
- Any foul odor, opening, drainage, redness, or swelling on your incision.
- Severe depression.
- Fainting.

Women must also ask their doctor about any symptoms that appear because it is better to be safe.
If you feel fullness, tenderness, or engorgement in your breast, that's normal in the process of the first 48 hours after delivery. Here are some suggestions that can make you feel more comfortable:

- Wear a firm and supportive bra 24 hours a day.
- It is recommended to expose your nipple to air whenever you can.
- You should feed your baby frequently, using both breasts during each feeding.
- For the engorged situation: before feeding your baby, try taking a warm bath or apply warm towel to your breast and let it sit.
- Avoid using soap on your nipples.
- If you have any question about breast-feeding, contact a lactation consultant at

- Red lines or painful areas in the breasts may be a sign of infection. In this case, consult your doctor. However, breastfeeding should not stopped in these cases, because the continued flow of milk into the channels of milk infected with the infection helps to clean it, and does not cause any harm to the child.
- Women should not take any medicines, even if they take non-prescription drugs, unless the doctor approves, because some drugs can pass through the milk to the child.
- For non-nursing mothers:
  - Wear a firm and supportive bra 24 hours a day.
AFTER CAESAREAN SECTION

- Avoid any massage in the breasts.
- Apply ice bag on your breasts for 20 minutes if your breasts become full and painful.

VAGINAL BLEEDING

Some changes can occur to the vagina and uterus during the recovery phase after a natural birth or a Caesarean section. They include:

- Vaginal discharge appears after birth that lasts about six weeks.
- Expect bleeding color to be dark red within 48 hours post birth.
- The flow will be heavy while it is normal to see small clots for the first 2 days.
- If your flow becomes bright red again and increases in amount after 3 to 4 days that means that you have been working too much and you have to take a rest.
- The color slowly becomes light red for 3 to 7 days after birth.
- The color becomes white for 12 days after birth.
- Avoid using tampons during this period because it increases the risk of infection.
- Some spotting that are a bright red color may happen from time to time. This is a natural thing. However, increased bleeding may mean to get more rest.

- Women may continue to sense the pain of contractions for several days after birth.
- For breastfeeding women, it is possible that the menstrual cycle does not return for many months.

PERINEAL CARE

There are some steps to avoid infection:
AFTER CAESAREAN SECTION

- Clean perineal area from front to back after urinating or having a bowel movement to avoid risk of infection.
- Use new peri-pad each time you use the bathroom.

URINATION

On the second and third days after birth, you may urinate more than usual. This is normal. To avoid dehydration, drink 6 to 8 glasses of fluid daily.

BOWEL FUNCTION

- You may feel constipation through the first three days after birth.
- Expect normal bowel movements after 3 or 4 days. To avoid constipation and improve bowel movement, it is recommended to:
  - Drink prune juice.
  - Eat food in bulk. For example, fruits, vegetables, whole grain breads, cereals, or bran.
  - Take a stool softener.
  - Take Milk of Magnesia if you have constipation after 3 or 4 days following your delivery.

INSTRUCTIONS/ACTIVITIES

- First 30 days after birth:
  - Be sure a rest during the day.
  - Focus your energy on your baby.
AFTER CAESAREAN SECTION

- You need to take a nap whenever you can.
- Avoid housework; ask relatives or friends to help you.
- Avoid lifting anything heavier than your baby.
- 4-5 weeks after birth:
  - No pushing, pulling, or lifting items greater than 20 lbs.
  - Pelvic rest.
  - Avoid douching, tampons, or sexual intercourse.
  - You can return to work in 4 to 6 weeks after birth.

INCISION/STRIPS CARE

The caesarean wound may take about 4 to 6 weeks to heal and to stimulate the healing process, we recommend the following:

- Keep your incision clean and dry.
- In the shower, let water and soap run over your incision.
- Avoid putting soap and water directly on your incision.
- Strips will fall off in their own on 2-6 weeks, or an appointment can made to remove them after 2 weeks.
- Track the wound daily and look at the wound area for any sign of the signs of infection, such as redness, swelling, exit of any liquid from the wound, a temperature higher than 100.4°F, or increasing pain in the wound area.
- Avoid strenuous activities such as cycling, running, or aerobics for 6 weeks or until the doctor allows you to do so.
- Avoid standing and sitting too much.
- You should be as comfortable as possible, preferably putting everything you need for yourself or your child nearby.
- In the first two weeks, you should avoid any lifting heavier than your child.
- Support your abdomen with a pillow in sneezing, coughing or laughing, as well as supporting your belly when standing or walking.
- Take pain relief medication as needed.
AFTER CAESAREAN SECTION

NUTRITION

The nutrition in this period is very important to mother and her baby. It should be:

- Eat foods from all four essential groups.
- Drink a lot of fluid: 6 to 8 glasses of liquid a day.
- Take vitamins and iron tablets.

A balanced diet helps the mother to lose weight and regain weight before pregnancy as soon as possible. The mother should take plenty of water to avoid constipation and eat fiber-rich foods. It is normal after the surgery to have constipation, but if it continues, take some laxatives.

MEDICATION

- **Prenatal Vitamins and Iron**
  - Take prenatal vitamins and iron supplements every day until you stop breastfeeding.
  - This may cause some constipation.

- **Tylenol # 3**
  - Pain relief medication.
  - May cause drowsiness or sleepiness.
  - May cause some constipation.

- **Motrin**
  - Pain relief medication.
AFTER CAESAREAN SECTION

- May cause an upset stomach.
- Stop taking this medication if you have ulcer problems or bleeding disorder.
- May cause constipation.

SEXUAL INTERCOURSE

- Sexual intercourse is not recommended for the first 4-6 weeks to avoid infection. You need to wait until vaginal discharge disappears and the placenta sits correctly in the uterus before returning to sexual intercourse.

SMOKING

A smoke free environment is recommended for you and for your baby. Smoking may cause health problems to your baby, including:

- Ear infections
- Asthma
- Pneumonia
- Bronchitis
- Diphtheria (throat inflammation characterized by coughing and shortness of breath)

So, please provide a smoking free environment for you baby.
POSTPARTUM BLUES/DEPRESSION

The transition to the motherhood period is a very sensitive period. The emotions in this period can be a mixture from excitement and joy to stress and anxiety. Many new moms have postpartum depression or blues after birth. These emotions will disappear after two weeks.

Symptoms of postpartum depression/blues:
- Fatigue.
- Sleep disturbances
- Stress
- Anxiety
- Mood swings.
- Change in appetite and energy levels.
- Feeling sadness, hopelessness, and isolation.

POSTNATAL EXAMINATION

The doctor usually examines women after six weeks after birth. This known as the "post-natal examination.” During that examination, the doctor makes sure that everything heals properly. The examination includes an examination of the vagina, uterus, and cervix. The doctor may also conduct an examination of the breasts, as well as blood pressure and body weight. This visit is good for you to ask your doctor about everything you want to know, such as preventing pregnancy and control methods, breastfeeding, and anything else you may have in physical and mental health as well.
OTHER COMMENTS OR INSTRUCTIONS

Make an appointment to see ________________________ For: __________________________

In __________________________

Doctor's Name ________________________________

Phone # ________________________________

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After Cesarean Section

By:
Amani Al Rebeh
University of Northern Iowa
2015-2017
APPENDIX R
PRE-TEST SURVEY QUESTIONNAIRE

The Effectiveness of a Patient Discharge Information Booklet in Patient Education Programs in Saudi Arabia (Pre-test survey questions)

Investigator use only

Code # (Investigator use only)
Your answer

Patient full name
Your answer

Date of discharge from hospital
Date
mm/dd/yyyy

Demographic

Nationality:
- Saudi
- Non-Saudi
Patient educational level

- Less than high school
- High school
- University
- Postgraduate

Do you have prior experience with postpartum?

- Yes
- No

If you selected yes, tell me how many?

Your answer

Do you have prior experience with C-section procedure?

- Yes
- No

If you selected yes, tell me how many times?

Your answer

Diagnosis:

Do you know what your current diagnosis is?

- Yes
- No
If you selected yes, can you tell me what it is?

Your answer

Measurement knowledge regarding c-section

Do you know what the C-section procedure means?

- All
- Some
- None

Do you know why your physician selected the C-section procedure for you?

- All
- Some
- None

Do you know when your strips may fall off on their own?

- Yes
- No
- I do not have

If you said yes, tell me when?

Your answer
If your doctor gave you an appointment to remove your strips, do you know when it is?

○ Yes
○ No
○ I do not have strips

If you said yes, when will be?

Your answer

Can you take care of your incision by yourself at home?

○ All of the time
○ Some of the time
○ A little of the time
○ None of the time

Check all the methods you will use to manage your incision at home:

☐ Keep my incision dry and clean
☐ Let the water/soap run down on the incision in the shower
☐ Apply soap on a towel and directly scrub my incision
☐ Use cream/lotions/neosprine to my incision
<table>
<thead>
<tr>
<th>Situation</th>
<th>It is normal</th>
<th>Go to hospital</th>
<th>Take medicine</th>
<th>Take a rest</th>
<th>Do nothing</th>
<th>water/food</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you have chills or fever greater than 100.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulty or pain when you urinate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urinating frequently with only a small amount of urine each time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constipation after 4th day of delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy, bright-red bleeding saturated more than two pads in one hour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>See several small clots in the first 3 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increases in amount of blood after 3-4 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Redness or severe pain in the breast area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain, tenderness, redness or swelling in your calves or thighs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any opening in your incision</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Medications

Regarding discharge medication

<table>
<thead>
<tr>
<th>I know the name of all my discharge medications</th>
<th>All of them</th>
<th>Some of them</th>
<th>A little of them</th>
<th>None of them</th>
</tr>
</thead>
<tbody>
<tr>
<td>I know the side effects for each one</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I know the dosage for each one</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I know the frequency for each one</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I know the instructions for each one</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I know the purpose for each one</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please list the name of all medication.

Your answer

Breast and Nipple Care

I have worn a firm, supportive bra 24 hours a day

1 2 3 4 5

strongly agree 〇 〇 〇 〇 〇 Strongly disagree

I expose my nipples to the air whenever I can

1 2 3 4 5

Strongly Agree 〇 〇 〇 〇 〇 Strongly Disagree
lifestyle Changes

Please select the best time to return to:

<table>
<thead>
<tr>
<th>Activity</th>
<th>First 10 days</th>
<th>After 10 days</th>
<th>2-4 weeks</th>
<th>4-6 weeks</th>
<th>More than 6 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resume normal activities</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Heavy lifting</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Back to work</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Sexual intercourse</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Housework</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

I have all the information I need regarding nutrition after delivery

<table>
<thead>
<tr>
<th>Rating</th>
<th>I have all the information I need regarding nutrition after delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>strongly agree</td>
</tr>
</tbody>
</table>

I have information regarding postpartum blues/depression

<table>
<thead>
<tr>
<th>Rating</th>
<th>I have information regarding postpartum blues/depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>strongly disagree</td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>strongly agree</td>
</tr>
</tbody>
</table>
## Satisfaction with written information on hospital discharge

<table>
<thead>
<tr>
<th>Information</th>
<th>Not satisfied</th>
<th>Uncertain</th>
<th>Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information about what the patient needs to do before discharge form hospital</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Information about what the patient needs to do after he/she leaves the hospital</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Information about the potential complications of the patient’s medical problem or condition</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Information about the signs and symptoms that the doctor should know immediately</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Information about whom to call if assistance is needed in case of complications</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Have you been given the chance to ask questions about the laboratory investigation and other investigations done?</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Information about the reason for taking each medication and how this helps with your condition</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Information about the possible occurrence of medication side effects</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Information about patient post-discharge dietary plans</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Information about follow-up care plan</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Information about how medical conditions impact the patient and his/her family</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Arrangement done by the hospital for the follow-up after discharge</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
A written discharge document explaining the patient's medical problem and further post-discharge instructions

Information about how to care for the surgical or wound site

Did you received a written discharge information upon discharge from hospital?

○ yes
○ No

Can you provide me your phone number so I can contact you after 4 weeks to complete the study?

Your answer

SUBMIT
The Effectiveness of a Patient Discharge Information Booklet in Patient Education Programs in Saudi Arabia (Post-test survey questions)

Code # (Investigator use only)

Your answer

Patient full name

Your answer

Date of discharge from hospital

Date

mm/dd/yyyy

Diagnosis

Do you know what your diagnosis was?

☐ Yes

☐ No
If you selected yes, can you tell me what was it?

Your answer

Knowledge Measurement

Do you know what the C-section procedure means?

○ All
○ Some
○ None

Do you know why your physician selected the C-section procedure for you?

○ All
○ Some
○ None

do you know what kind of strips do you had

○ Yes
○ No
○ I do not know

Did your doctor give you an appointment?

○ Yes
○ No
○ I do not have strips
If you said yes, did you go?

☐ yes
☐ No

Did you take care of your incision by yourself at home?

☐ All of the time
☐ Some of the time
☐ A little of the time
☐ None of the time

Check all the methods you used to manage your incision at home:

☐ I kept my incision dry and clean
☐ I let the water/soap run down on the incision in the shower
☐ I applied soap on a towel and directly scrubbed my incision
☐ Used cream/lotions/neosprine on my incision
☐ Other: ____________________
## Signs and Symptoms

**Please select the best answer**

<table>
<thead>
<tr>
<th></th>
<th>I do not had</th>
<th>It is normal</th>
<th>Went to hospital</th>
<th>Took medicine</th>
<th>Rest</th>
<th>Did nothing</th>
<th>water/food</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you had chills or fever more than 100.4</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>If you had difficulty or pain when you urinated</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>If you urinated frequently with only a small amount of urine each time</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>If you had heavy, bright-red bleeding that saturated more than two pads in one hour</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>If you saw several small clots in the first 3 days</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>If you increased in amount of blood after 3-4 days</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>If you had redness or severe pain in the breast area</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
### Medications

Please select your answers

<table>
<thead>
<tr>
<th></th>
<th>All of the them</th>
<th>Some of the them</th>
<th>A little of the them</th>
<th>None of the them</th>
</tr>
</thead>
<tbody>
<tr>
<td>I knew the name of all my discharge medication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I knew the side effects for each one</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I knew the dosage for each one</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I knew the frequency for each one</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I knew the instructions for each one</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I knew the purpose for each one</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please list the name of medications you used during the postpartum period?

Your answer

**Breast and Nipple Care**

I wore a firm, supportive bra 24 hours a day

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>none of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>All of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I exposed my nipples to the air whenever I can

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>None of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>All of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Lifestyle Changes**

Please select the time you return to each activity

<table>
<thead>
<tr>
<th></th>
<th>First 10 days</th>
<th>After 10 days</th>
<th>2-4 weeks</th>
<th>not yet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal daily activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifting heavier things greater than your baby</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual intercourse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housework</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
I had the information that I needed regarding nutrition after delivery

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly disagree</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>strongly agree</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
</tbody>
</table>

I have information regarding postpartum blues/depression

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly disagree</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>strongly agree</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
</tbody>
</table>

### Satisfaction

<table>
<thead>
<tr>
<th>Information</th>
<th>Not satisfied</th>
<th>Uncertain</th>
<th>Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information about what the patient needs to do before discharge from hospital</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Information about what the patient needs to do after he/she leaves the hospital</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Information about the potential complications of the patient's medical problem or condition</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Information about the signs and symptoms that the doctor should know immediately</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Information about whom to call if assistance is needed in case of complications</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Have you been given the chance to ask questions about the laboratory investigation and other investigations done?</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Information about the reason for taking each medication and how this helps with your condition</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Information about the possible occurrence of medication side effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Information about patient post-discharge dietary plans</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information about follow-up care plan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information about how medical conditions impact the patient and his/her family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrangement done by the hospital for the follow-up after discharge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A written discharge document explaining the patient's medical problem and further post-discharge instructions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information about how to care for the surgical or wound site</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>