Design of Appropriate Educational Methods for Nurses in Implementing Urinary Tract Infection (UTI) Bundles

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Abstract—**During catheterization procedures, nurses have a crucial role in determining the transmission of infectious agents. This is because they work closely with patients and manage urinary tract infection (UTI) bundles. Therefore, it's essential to reconsider nursing education approaches so that nurses get more conscious by working together to identify challenges and develop self-motivation abilities. Twenty associated nurses in patient rooms are involved in a qualitative action research project. To inspire nurses to manage UTI bundles, the research aims to work with participants to determine the most effective learning methodologies to raise their comprehension and awareness of their role as nursing care implementers. This study employed focus group discussions (FGD) to explore experiences and test emotions. Frederick Herzberg's motivation theory is used to identify nurse motivation. Based on the findings of FGD with participants and experts, education to motivate implementing nurses was found to be the most appropriate educational technique design after conducting qualitative data analysis. This program aims to provide psychological support to participants. Participants were observed and questioned one month later during the Reflecting stage. Experts in psychology conducted questionnaires before and after motivational education sessions, and the results indicated a noteworthy rise in motivation—from 35% to 80%. In addition to the insights gained from interviews conducted during FGD, it was determined that participants felt more intrinsically motivated and were more conscious of the need to perform nursing acts professionally.**

Keywords—**UTI bundles; educational methods; nurse performance; Catheter-Associated Urinary Tract Infection (CAUTI).**

I. INTRODUCTION

Urinary tract infection (UTI) bundles are procedures used by healthcare professionals, particularly nurses, to prevent urinary tract infections (UTIs) resulting from inserting, maintaining, and removing a patient's urinary catheter. These procedures aim to treat patients appropriately and prevent CAUTIs, or urinary tract infections associated with catheter use. CAUTI cases are instances of urinary tract infections (UTIs) in individuals that result from the implantation of a urinary catheter. Healthcare-Associated Infections (HAIs), also called CAUTI instances, may occur due to health care that does not adhere to established guidelines [1].

The researchers' initial survey revealed gaps in nursing practice in the hospitals they were looking into, specifically that only five nurses (25%) took care of patients' urethral meatus, five patients (25%) had their urinals, and two dozen nurses (60%) washed their hands before handling the catheter. Furthermore, the UTI bundles of 103 nurses at three Turkish hospitals were examined; the findings indicated that the nurses' procedures were out of compliance. For instance, only 3.9% of nurses utilize urine bags and place them behind the bladder; moreover, only 25.2% of nurses routinely clean the urethral meatus, which might avoid up to 32% of the pressure put on the urethra [2].

CAUTI can be avoided by using the UTI bundle procedure. The aforementioned protocol is part of the UTI management bundle, which also includes: (1) catheter insertion protocol, which requires hand hygiene, meatus cleanliness, sterile urinary catheter set, aseptic technique, balloon filling by manufacturer's recommendations, good fixation; (2) catheter care, which entails hand hygiene when manipulating the catheter; (3) removing the catheter by indications, removing fluid from the balloon first, and ensuring that the balloon is empty [3].

Through the implementation of this UTI bundle, CAUTI instances may be decreased. The successful implementation of the urinary catheter bundle, which involves inserting the catheter for a maximum of 72 hours, has reduced 7.6 incidences

of CAUTI per 1000 catheter days to zero over the study period of October 2021 to August 2022. To keep this number up, physicians and nurses must be highly motivated and alert [4]. Patients also require the same cooperation or synergy as health workers, in this example, physicians and nurses [5]. Patients also need to be knowledgeable in caring for urinary catheters and nurses. According to [6], teaching patients and caregivers about managing urinary catheters and self-care can avoid urinary tract infections. In addition, nurses educate patients on the value of eating foods high in fiber and drinking lots of water. Additionally, they stretch and place the urine bag appropriately, ensure the equipment is set correctly, and verify that the balloon fits appropriately [7]. Effective management of urinary catheters is done in tandem with the patient; nurse practitioners must possess the bare minimum of abilities and a strong rapport and compassion for the patient [8].

Nurses contribute the most to the prevention and management of CAUTI. Given their close interaction with patients, nurses also function as advocates for their patients, providing a range of factors depending on their condition to help with treatment choices. Thus, it can be concluded that of all CAUTI preventive strategies, nurse engagement is the most crucial [9]. However, each nurse makes a unique contribution that differs depending on their knowledge and preferences as a nurse.

Nurses' awareness is impacted by their age, education, and clinical experience [10]. Raising nurses' knowledge and understanding is the most crucial component of efficient infection prevention and control [11], further corroborating this assertion. This assertion is consistent with that expressed by [12] that lower rates of CAUTI in patients will result from improved nursing practice, high standards of education, and the provision of evidence-based practical training to nurses on UTI bundle management.

The supportive role of the nursing leader is essential to developing self-awareness, which is the foundation for nursing motivation. According to [6], nurse leaders need to be able to establish a positive work atmosphere, include nurses in decision-making, provide rewards or incentives, cultivate a positive work culture and an environment that can encourage internal participation, guarantee high-quality work, and help nurses develop into psychologically sound, motivated, and empowered professionals [13], [14].

This is consistent with earlier studies that indicate tactics that nurse leaders may design to boost nurse motivation and awareness are necessary for implementing UTI bundle management. Focus group discussions (FGDs) help increase nurse motivation. Nurse leaders may engage with their nursing staff directly through this focus group discussion (FGD) exercise, which can also serve as a platform for them to communicate their experiences and emotions openly and honestly. According to the study's findings, nurse leaders' duties encompass enforcing monitoring within the room, evaluating the activities of nurses, and guaranteeing that any enhancements would culminate in improved nurse performance compared to the initial state [15]. Nurse leaders must be able to support nursing practice and maintain nurses' motivation to provide superior, high-quality care [16]. Nurse motivation is crucial to the delivery of health services, as it allows nurses to carry out their duties by protocol without having a negative effect on patients. Learning about a nurse's

challenges is essential to understanding how a nurse, who often serves as the initial point of direct contact for patients receiving treatment, could be inspired to act.

Herzberg's theory serves as a framework for identifying factors that support employee happiness or emotions of satisfaction, as well as factors that support employee unhappiness or dissatisfaction, which are the cornerstones of nurse motivation [17]. Researchers must listen to nurses and engage in group discussion through a focus group discussion (FGD) to support them in examining their emotions. Finding the best way to boost motivation concerning these supporting and inhibiting variables can be aided by understanding the elements that affect emotions of pleasure and discontent at work.

The internal motivation component is the most crucial motivation element to consider, according to the findings of a qualitative study. Because nurses who have developed a sense of motivation will be better equipped to deliver higher-quality nursing care [18]. To reduce the number of urinary tract infections (UTI) brought on by urinary catheter installation, researchers believe it is critical to create an educational program that effectively raises nurses' awareness of and encourages them to implement UTI bundle management. This internal motivation is derived from self-awareness. Regarding Health Care-Associated Infections (HAIs), CAUTI may be avoided if medical staff continually take the required and suitable steps.

This study is critical because, according to an initial survey of fifteen nurses, twelve were less motivated to work because of aspects of their workplace, a lack of interest in patient care, and a decreased passion for working in inpatient rooms. This led to a decrease in their dedication to correctly performing procedures and attempting to resolve issues that arose during the implementation of UTI bundles. In addition, this field of study has never employed motivational education techniques. As a result, researchers anticipate that this study will make a valuable contribution going forward.

II. MATERIALS AND METHOD

A. Research Design

This type of study is a qualitative approach with an action research design carried out in a single cycle. This research aims to identify the issues surrounding the non-implementation of UTI bundles and determine the most effective educational approach for nurses in inpatient rooms. This will enable nurses to become internally motivated through education.

The present study involved a group of nurses implementing UTI bundle management. Given their exposure to growing difficulties and challenges, it was imperative to devise a collaborative approach to problem resolution using focus group discussions (FGDs). Instead of being based on the researcher's viewpoint, problem solutions are discussed with the nurse as the implementation topic. Through the participation of a group of nurses in the implementation of UTI bundle management and group discussion of an effective educational method to change the awareness and behavior of a group of implementing nurses in the inpatient room at Universitas Sumatera Utara Hospital, this research aims to explore problems both internally and externally. After that, the researcher analyzed the data to create an efficient

problem-exploration design and instructional strategy. The study's ultimate goal is to modify participant behavior so they may feel more empowered to perform their jobs.

The four (four) primary steps of this action research study were planning, acting, observing, and reflecting. As this study continues, action research is being employed at the professional contextual level to improve patient safety through changes in knowledge, practice, or behavior connected to implementing the patient role model.

B. Participants

In this study, nurses in the Universitas Sumatera Utara Hospital inpatient unit participated. For inclusion, the nurse must have performed urinary catheterizations for two years and have at least two years of experience as an inpatient nurse. Stratified random sampling was used. Participants who fit the requirements are selected randomly from each inpatient room and serve as a representative sample of the implementing nurses in that particular room. Twenty nurses made up the entire research sample.

Selecting samples through the random stratified technique involved identifying the characteristics of nurses in each adult inpatient room. These characteristics were then categorized into two homogeneous population groups: 1) The first group consisted of nurses with a D3 nursing education and 2 to 6 years of work experience, totaling 10 individuals. Four nurses were selected as research samples from this group. 2) The second group included nurses with a bachelor's degree in nursing and 7 to 11 years of work experience, comprising 40 individuals. Sixteen nurses were chosen as research samples from this group. Consequently, the overall sample size amounted to 20 individuals. This sampling was conducted randomly, with the number of samples from each group determined based on proportional representation. The limitation in the sample selection for this study lies in the significant differences in proportions between the two sample groups.

C. Data Collection

The data was collected from July 2021 to January 2022. Before any data could be collected, informed consent forms from participants, ethical clearance from the research ethics commission, and authorization from the research site were all required. The method used to obtain data was interviewing a group of nurses who acted as study subjects through focus group discussion (FGD) activities. Everyone should be able to take part in this activity and explore their emotions and experiences. Implementing the FGD took 60 minutes. The following phases of the activity are completed:

a. Participants engage in conversation during the first FGD. Researchers encourage participants to be candid about their experiences with catheterization procedures so that nurses can improve the implementation of management UTI bundles. This includes understanding the management of UTI bundles, the benefits of implementing them, the challenges encountered, and the factors that support their implementation.

b. A week following the initial focus group discussion, there was a second one. In this one, the researcher collaborated with the participants to create a motivating teaching technique to help them solve their problems.

Participants will get active guidance from researchers on expressing their ideas honestly.

c. A week after the second focus group discussion (FGD), three experts public psychology, psychiatric nursing, and management nursing experts—discussed with researchers and participants. This FGD aims to complete the creation of a suitable UTI bundle management training program for nurses working at Universitas Sumatera Utara Hospital.

d. The use of psychologists' motivator education attempts to boost nurses' motivation by giving educators a direct, honest approach and focusing on the internal factors that participants have jointly developed in the third FGD.

e. Track participant behavior one month after implementing motivational education to evaluate the effectiveness of UTI budless management.

f. The fourth focus group discussion (FGD) aims to delve deeply and candidly into participants' sentiments to evaluate how well instructional techniques have raised participants' awareness of the need to practice UTI bundle management.

g. In the FGD activity, the same participants attended each session, ensuring consistent involvement. The participants were categorized into two distinct groups based on their work experience, allowing for a variety of perspectives and ideas that contributed to the enhancement of this research.

h. Participants share their opinions and experiences openly and enthusiastically. All participants have worked in an inpatient ward for over 2 years and have extensive knowledge and expertise in applying urinary catheter insertion techniques in clinical practice. Also, the researchers were close to the participants, which added value to this study by providing more detailed information.

D. Time and Location of Research

This study was conducted in the inpatient section of the Universitas Sumatera Utara Hospital from July 2021 to January 2022.

E. Instruments

This study gathered data through direct observation, interviews, and questionnaires. The study instrument to determine the participants' identification was a motivation questionnaire for nurses adopting motivational education pre- and post-implementation and a demographic data questionnaire in the form of closed questions. Researchers used FGD activities to interview participants to learn more about their feelings. Five open-ended questions were included in the literature review-guideline-based interviews to allow participants to express their thoughts and opinions freely. Using Field Notes guidance which may assist researchers in obtaining more in-depth information or notes in the field— direct observations were conducted to determine the implementation of UTI bundles management following the motivational education exercise. In addition, FGD activities were used to interview participants to understand how they felt during and after the motivating instruction and while the inpatients were being catheterized.

F. Methods of Work

1) Reconnaissance: During this phase, preliminary data is gathered by introducing the study site, contacting possible participants and interested parties to learn more about their backgrounds, and locating relevant research materials.

2) Planning: The researchers created a study schedule, looked for nursing literature reviews to resolve issues, and created suitable teaching strategies. Following that, we had a group discussion to collect the participants' perspectives based on their experiences, and we all concluded that motivational education is crucial since self-motivation is one of the variables influencing the behavior of implementing nurses. The participants' opinions were refined through expert conversations grounded in the recommendations of the literature review, including Frederick Herzberg's two-factor theory of motivation. Because this could affect nurses' motivation, we shall collect aspects of satisfaction and discontent with nurses in implementing urinary catheterization concerning this theory.

3) Acting and Observing: Researchers used psychologists' motivational education on 20 subjects. Frederick Herzberg's theory served as the foundation for the motivational education given following creating the motivating design for nurses in implementing UTI bundle management at the North Sumatra University Hospital.

4) Reflecting: After a month of instruction, researchers evaluated participants using focus group discussions (FGD) in which participants were interviewed according to predetermined parameters. The output was then analyzed and interpreted, and conclusions were drawn.

G. Data Analysis

Both quantitative and qualitative data analyses were done. Descriptive statistical tests were utilized to examine participant motivation and demographic data from questionnaires, yielding percentage and frequency values. Researchers select pertinent and engaging topics for Focus Group Discussion (FGD) participants, ensuring that all individuals can actively participate and contribute, thereby facilitating the achievement of the research objectives. The researcher consults with experts to identify the topic or theme for the FGD interview. In analyzing this qualitative research, the researchers transcribed the interview recordings from the FGD sessions and coded all relevant data within the transcript. Subsequently, themes and subthemes are identified and organized accordingly.

III. RESULTS AND DISCUSSION

A. Participant Characteristics

This research involved 20 executive nurses in the inpatient room. The results are shown in Table 1. Most participants are female, aged 36-40, have worked for 7-11 years, and have a bachelor's degree in nursing.

According to this study, the majority of participants were between the ages of 36 and 40, had between 7 and 11 years of work experience in an inpatient ward, and 80 percent held a bachelor's degree in nursing education. A bachelor's degree in nursing and a lot of job experience are advantageous for

hospitals. Someone might be referred to as a senior clinical nurse if she/he has worked for over five years. Senior clinical nurses are supposed to supervise or mentor junior or new nurses. Due to its interference with fundamental nursing operations and increased workload, junior nurses frequently believe or assume that appropriately placing or maintaining a urinary catheter is a waste of time [19].

TABLE I
PARTICIPANT CHARACTERISTICS

No	Characteristics	Frequency (n)	Percentage (%)
1	Age:		
	26-30	4	20
	31-35	6	30
	36-40	10	50
2	Gender:		
	Male	5	25
	Female	15	75
3	Work experience:		
	2-6 year	4	20
	7-11year	16	80
4	Education:		
	Associate Degree in Nursing	4	20
	Bachelor's Degree in Nursing	16	80

B. Nurse Motivation

Thirteen individuals, or 65 percent, showed poor job motivation. Low work motivation can be caused by some factors, including unhappiness with staff ratios (80%), dissatisfaction with the state of health facilities (80%), a lack of environmental support at work (in this case, work culture and collaboration, 50%), and discontent with leaders' or superiors' supervision (60%) deal with 80% of the burden in the room. Low work motivation, on the other hand, is linked to emotions of job satisfaction. Specifically, individuals report feeling interested (40%), happy with work commitment (40%), and content with obtaining incentives (25%). 50% of the job will be as an inpatient ward nurse. The result is shown in Table 2.

TABLE II
NURSE MOTIVATION

Motivation Category	Frequency (n)	Percentage (%)
High work motivation	7	35
Low work motivation	13	65

Before conducting the focus group discussion, the researcher assessed the participant's motivation as an inpatient room nurse. According to the data, most participants, or 13 people (65%), exhibited poor job motivation. FGD activities were conducted following the processing of the participant motivation questionnaire. The outcomes aligned with what the FGD activity participants had to say. Since trust has been established, there is free communication between researchers and participants during focus group discussions (FGDs). More specific data is acquired since the researcher is a nurse in the inpatient room. Investigating issues inside the study group is one of the benefits of research.

C. Perspectives from Participants Involved in Developing Educational Plans for Nurses Implementing UTI Bundles Management in the Inpatient Unit

Researchers held the first focus group discussion (FGD) with 20 implementing nurses during the reconnaissance stage. The session lasted 60 minutes. The purpose of this FGD is to investigate the thoughts and sentiments of participants regarding the urine catheterization process for inpatients. The information gathered is divided into five (5) sub-themes: (1) participants' comprehension of UTI bundles; (2) nurses' perspectives regarding the advantages of implementing UTI bundles; (3) challenges encountered during the implementation of UTI bundles; (4) factors that facilitate the implementation of UTI bundles; and (5) aspirations or suggestions for enhancing the implementation of UTI bundles. The theme matrix in the table below shows the participant's perspective:

TABLE III
RECONNAISSANCE STAGE THEME MATRIX

Theme	Sub theme	Category
1. Knowledge of UTI bundles	methods or processes for inserting a catheter and continuing with the catheter removals	1. The sterile procedure of catheterization 2. Using the right procedure while taking urine samples 3. Perform maintenance on the urinary catheter 4. Remove the urinary catheter using the right method and in accordance with the instructions
2. Benefits of implementing UTI bundles	preventing UTIs as a result of the catheterization procedure	1.The risk of getting UTIs 2. Cross-infection risk
3. Challenges encountered in the implementation of UTI bundles	Health facilities	1. Sterilized catheter sets that are available in their entirety
	Workload	1. Workload and workforce comparison 2. The urge to finish the task as soon as possible
	Supervision	1. Nursing manager supervision 2. IPCN supervision
4. Factors that facilitate the implementation of UTI bundles	IPCN	1. The IPCN present has the authority to supervise
	Level of knowledge and skills	1. The education provided regarding UTI bundles 2. Over two years of work experience
5. Solutions to improve the UTI bundles management implementation	Motivation pertaining to nurses' senses of satisfaction and dissatisfaction	1. Reward and punishment in the implementation of nursing services 2. Expertise 3. Self-knowledge 4. Nurses' knowledge of risk if standards are not followed

Theme	Sub theme	Category
	Motivator education	1. Constantly remind 2. Education that increases motivate for oneself 3. Raising nurse awareness

1) Theme 1: Knowledge of UTI bundles: Participants' understanding regarding UTI Bundles. The participants explained that UTI bundles are a method or process that involves placing a catheter and keeping it in place till it is removed. A number of individuals had the following interpretation of UTI bundles:

"...in my opinion, UTI bundles are a way of collecting urine through a dower catheter by clamping it and then taking the sample using sterile technique." (P2).

"....methods for getting urine samples or methods for putting in a catheter. You have to apply the proper approach when collecting urine. (P4).

"... This UTI bundle starts with installing a urinary catheter, hmm... installing a urinary catheter must use aseptic technique, then beforehand you have to do hand hygiene, in taking samples hmm you also have to use aseptic technique and then maintenance of the urinary catheter itself must also be done maintenance, after 14 days the urinary catheter must be replaced and the catheter must be removed if it is no longer used..." (P11).

2) Theme 2: Benefits of implementing UTI bundles: According to some participants' comments, one benefit of deploying UTI bundles is that they help prevent urinary tract infections that may arise during the catheterization process.

"... hmm, it is done according to the UTI bundles so that UTIs don't occur..." (P7).

"Using UTI bundles prevents infection and prevents cross-infection." (P9).

3) Theme 3: Challenges encountered in implementing UTI bundles: Implementing UTI bundles management is hampered by issues with health facilities, the workload of nurses, inadequate or subpar supervision, and a deficiency of enthusiasm among the nursing staff. This aligns with the following responses made by participants:

"... If... to sum it all up, Sis, the sterile technique used was definitely lacking because, as explained earlier by a friend, there were no sterile handscones provided." because the placement of a urinary catheter is urgent, and the pharmacy hasn't even placed the order for it yet." (P1).

"...... an as-yet-unavailable sterile catheter installation package... Everything is in one kit, including sterile packets containing urine catheters, meatus cleaning equipment, and aquabidest." (P11).

"..... often forget to carry out sterile techniques because there are a lot of work in the room and many patients need nursing staff at that time. Even though I insert a catheter every day, I get used to the non-sterile working system..." (P2)

The rigors of a huge workplace can be taxing for nurses, necessitating the provision of sufficient resources, comfort on their own, and growth possibilities to foster intrinsic motivation [20]. Their work environment and outstanding support significantly influence the psychology of nurses in

providing nursing care. Overwhelming workloads will lower nurses' enthusiasm to work, as well as their interest and performance [21].

In addition, participants expressed their responses, which are as follows:

"... there is indeed a lack of supervision, maybe later there will be supervision from the head of the room or management regarding catheter installation and maintenance too..." (P9).

We must catch up on time, especially in the room, so that the task may be completed quickly. Other elements that may impact, and which ultimately influence aspects inside ourselves, include self-awareness and lack of compliance. (P10).

"......sometimes nurses also feel dissatisfied with their work.. hmm.. there are not enough tools, and nurses also don't get enough appreciation... hmm...." (P19, P16).

Research has also shown how nursing leaders can empower nurses to produce mentally well driven and empowered nurses by fostering a positive work culture, allowing nurses to participate in decision-making, offering rewards or incentives, and creating a comfortable work environment. promoting internal participation among nurses to ensure high-quality work [13].

In keeping with motivation theory, the nurse leader is in charge of organizing and managing the motivational cycle within the team. Interview interviews cited Nurse leaders' supervision as a factor in implementing nurses' motivation. In addition, to increase nurses' self-efficacy, leaders should serve as role models by setting an example, offering assistance, and including their nursing staff in issue identification, problem resolution, and decision-making. Increased trust can strengthen nurses' interprofessional interactions when delivering nursing care. As a result, nursing personnel with confidence eventually have a favorable effect on patient care (Karen, 2020).

4) Theme 4: Factors that facilitate the implementation of UTI bundles: The presence of an IPCN in the room as a supervisor, socialization that has been given, and experience so that nurses are knowledgeable about catheterization are factors that assist the deployment of UTI bundles. This is consistent with the following comments made by the participants:

"..... for the IPCN in the room, we will have one, so the IPCN can refresh again and supervise implementation while in the room..." (P10).

"First off, we already understand its application in hospitals due to our knowledge gained through socialization and experience thus far. If the facilities don't support it, perhaps there are other factors at play, or perhaps we already know how to do it well." (P15).

The research also revealed that one of the intrinsic variables that might boost nurses' motivation is their knowledge and abilities. Expertise and experience are still prerequisites for intervening on patients' behalf. Urinary catheterization is still not well understood or practiced by nurses, according to research done in one hospital in Pakistan [22]. On the other hand, nurses' attitudes toward care for urinary catheters can be positively altered by evidence-based training and increased knowledge [19]. To increase patient satisfaction as clients of health services, nurses should

maximize their competencies through specialized training [23]. Because of several factors about nurses' discontent with their roles and general well-being at work, nurses must participate in guidance or training [24]. To incorporate developing a good attitude into one's own competency infield practice, one must receive training in motivation and knowledge enhancement [25].

5) Theme 5: Solutions to improve the UTI bundle management implementation: Raising nurse motivation and offering quality education to nurses are the best ways to handle the challenges in UTI bundle management implementation. This is consistent with the following comment made by the participants.

"......It is imperative that we maintain our own motivation. We must carry out these regulations in a professional way, according to the UTI Bundles as they should..." (P1).

"....We inculcate in ourselves that we must take responsibility for our actions, as we feel guilty if we don't follow SOP. This helps prevent unintentional infections. In fact, we must inculcate in the services we provide that we are accountable for everything we do..." (P10).

"Nurses, please be truthful, authentic, and follow sterile principles and procedures when doing their duties. If information is scarce, then it has to be expanded." (P3). "...education is crucial because, aside from control, knowledge is power. You can remind yourself of the SOP for inserting a catheter by using the head of the room." (P1).

"...a variety of factors, such as appropriate education to inspire nurses, can increase our self-awareness..." (P15).

D. Reconnaissance Stage

Based on the findings of the second FGD activity, which involved discussing experiences, issues about barriers to UTI bundle management were identified. These included a deficiency in oversight and a lack of drive among nurses to perform tasks under established hospital inpatient room standards. The issues that the researchers have discovered at this point are consulted while organizing the following phase. The acting, observing, and reflecting stages are the ones that are completed.

E. Planning Stage

The researcher devised a strategy that called for a meeting during the first FGD exercise to go over the intended actions to enhance the management of UTI bundle implementation. Twenty people from inpatient rooms participated in this 60-minute session. The lack of motivation among nurses is one of the factors impeding the implementation of UTI bundles, according to the outcomes of discussions between researchers and participants. This highlights the need for packaged educational activities that can arouse nurses' feelings and awareness and help them feel motivated. Following data collection from the focus group discussions (FGD) interviews, a 60-minute FGD activity with three expert psychologists, mental nurses, and nursing managers was conducted to finalize the design of an effective educational program to boost the motivation of implementing nurses in hospital wards. The planned educational technique design will be implemented as an acting stage, and observations will be made as a stage of outcome evaluation.

The result of the second focus group discussion (FGD) exercise, which involved experts from psychology, mental nursing, and nursing management, was that nurses would be motivated if they felt satisfied with their work. This included receiving awards from superiors or nursing managers, being committed to being a professional nurse, showing interest in the inpatient room as a nurse, and having nursing knowledge and skills. Furthermore, this contentment must be commensurate with elements that may eradicate nurse discontent, provide a supportive work environment or culture, manage workload, and provide frequent oversight from relevant stakeholders, including infection control teams and nurse supervisors.

Favorable work environments and staff support influence the psychological motivation of nursing professionals at work. Psychological requirements will be satisfied, including those for competence, belonging, and autonomy. Nursing personnel will often feel more prosperous, find job happiness, and strive to give high-quality individual work if these psychological demands are met [26]. Furthermore, a happy work atmosphere might generate innovative ideas and beneficial new developments. Innovative activity is often associated with a strong feeling of self-confidence and the ability to overcome obstacles at work [27].

F. Acting and Observing Stage

Plans are followed while carrying out actions throughout the acting and observing phases. In the first phase, researchers conducted a 60-minute focus group discussion (FGD) with 20 participants to eavesdrop on implementing nurses' experiences adopting UTI bundle management. The discussion was broken down into five distinct topics.

The primary issue is that the implementation of nurses' motivation was discovered after the data was gathered. Then, with 20 participants, the researchers held a second FGD for 60 minutes to learn more about the variables influencing the implementation of nurses' desire to apply UTI bundle management. Knowledge or skills, job interests, work goals, supervision, workload, work culture, reward/ punishment, and prior experience were the outcomes of the debate. Using Frederick Herzberg's motivation theory, the researcher used this FGD to inform participants about the educational approach offered. To increase employee happiness and finally reach staff satisfaction, Herzberg's theory may be used for the assessment of employee discontent and contentment [28].

In addition to Frederick Herzberg's motivation theory, there are other theories of motivation, such as Maslow's theory, Clayton Alderfer's ERG theory, McClelland's achievement theory, Edwin Locke's theory of motivation: goal determination, and Victor Vroom's theory of motivation: expectation determination. Herberg's theory is the closest theory to be used as a guide for determining intrinsic and extrinsic motivation in nurses in the research field. Many extrinsic factors are challenging to alter because they are linked to hospital policy. In the meantime, motivational education techniques can alter intrinsic factors. Additionally, it is hoped that nurses will become aware of the need to implement UTI bundles from within.

The researchers performed a third focus group discussion (FGD) with three psychology, psychiatric nursing, and management nursing specialists to establish the best design

for delivering motivational education. Using Frederick Herzberg's motivation theory, the idea of two elements that drive motivation, namely motivator factors and hygiene factors, the researcher described a model of motivator theory that modified the findings of the debate in the second FGD. Two motivational elements, self-actualization and communication skills, were identified from the discussion's outcomes, while the hygiene factors were supervision, work culture, and reward/punishment.

Based on the outcomes of the expert and participant talks, motivational training techniques should be used as an educational approach. This training offers participants psychological support by focusing on variables that affect motivation, such as hygiene elements and motivational factors, as shown in Fig. 1.
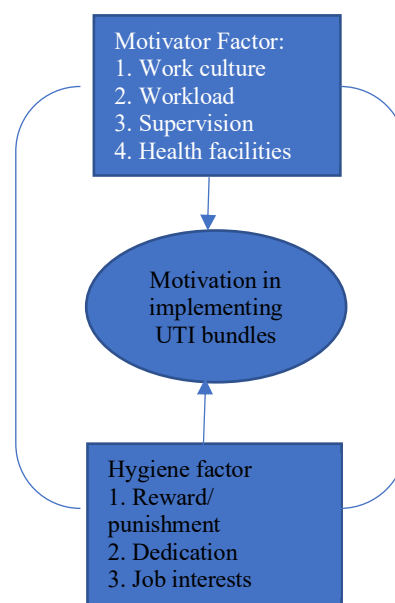

Fig. 1 Design of educational methods for motivator training

This educational method's design explains why participants feel happy (hygiene factor/intrinsic factors) at work, which includes rewards, dedication, and interest, and dissatisfied (motivator factors/extrinsic factors), which provides for heavy workloads, work cultures, and supervision (hygiene factors). These two elements impact users' motivation levels when implementing UTI bundles.

It is said that extrinsic and intrinsic variables are the main drivers of nurse job dissatisfaction when examining nurse satisfaction through the lens of Frederick Herzberg's motivation theory. Extrinsic factors that must be taken into account and appropriate strategies found to overcome to realize satisfaction and performance growth include the work environment support factors, the completeness of health facilities, supervision from superiors on work management strategies, and a comparison of workload with workforce [29].

This contrasts with the findings of other research, which contend that the intrinsic element plays a significant role in inspiring nurses to pursue careers in nursing. These fundamental factors are his passion for learning, motivation to keep learning, and fulfillment in providing professional services. Still, extrinsic factors must be developed further [30]. However, intrinsic factors—namely, the availability of professional training and autonomy in nursing practice to

allow nurses to advance their skills—impact nurses' work satisfaction [29].

Furthermore, perceived experience, the nurse's dedication to and interest in patient care, and the nurse's acknowledgment and responsibility due to the principles they uphold may all be considered intrinsic variables. These two elements complement one another and have a significant role in encouraging nurses to work. Frederick Herzberg's motivation theory, which emphasizes the existence of situational circumstances that contribute to strong work motivation, was also used to describe the same idea. It is the work setting and work content in this instance. The work content is inherent to the work and contributes to a high level of job satisfaction, while the work context is tied to external elements, namely an individual's experience in the work environment. Negative emotions, incentives, or compensation for services rendered to nurses might inspire them to develop their talents [24].

Completing job logistics and offering rewards can boost work motivation, which is equally crucial. Because they are willing to give of their time and energy, employees with strong intrinsic motivation have a strong correlation with performance [25]. Because of this, in research, experts will provide training or instruction to participants to explore their sentiments without pressuring them and encouraging them to articulate their wishes. These combined forms will become participant motivation.

To inspire others to be inspired from within, motivators offer instruction and constructive guidance that might stimulate participants' emotions. Two sessions of 60 minutes each were used for education utilizing the motivational training approach. Twenty people attended this training, which was explicitly for executive nurses working in inpatient rooms. From the researcher's observations and the data, the participants seemed excited to participate in the FGD activities.

The researchers observed participant behavior one month after the motivational training exercises were implemented to assess participant behavior. To make observations, nurses' attitudes and behaviors about implementing UTI bundle management were evaluated. The Field Notes guide, which may assist researchers in gathering in-depth information or notes in the field, was directly used to conduct observations.

G. Reflecting Stage

After participants received instruction for one month, researchers evaluated the subjects. Researchers conducted in-depth interviews during their FGD efforts at the reflecting stage. This stage's goals are to 1) investigate participants' motivation for implementing UTI bundles following motivational training and 2) investigate participants' actions in managing bundles while utilizing the UTI bundles management guide within the room. This step involves analyzing the data, interpreting it, and making judgments based on the results.

After participants received instruction for one month, researchers evaluated the subjects. Researchers conducted in-depth interviews during their FGD efforts at the reflecting stage. This stage's goals are to 1) investigate participants' motivation for implementing UTI bundles following motivational training and 2) investigate participants' actions in managing bundles while utilizing the UTI bundles

management guide within the room. This step involves analyzing the data, interpreting it, and making judgments based on the results. Participants in this study reported feeling more motivated after receiving motivational education. as seen in the following table:

TABLE 4
NURSE MOTIVATION

Motivation Category	Frequency (n)	Percentage (%)
High work motivation	16	80
Low work motivation	4	20

The primary challenges faced by nurses, particularly at the hospital where the research was done, were those impacting participants' motivation as nurses adopting UTI bundle management, and that was investigated in focus group discussions (FGD) activities. Thus, in collaboration with the participant group, the researchers—along with psychologists, mental health specialists, and nursing management experts—developed a design of motivating factors and instructional strategies that could encourage nurses to perform UTI bundle management professionally. It was shown that individuals' motivation improved following two sessions of motivational instruction. specifically boosting nurses' dedication and enthusiasm. In this study, the specific aspects most motivated participants were interested in as nurses whose job is to help each patient allowed them to embrace themselves as nurses in the inpatient service and increase their commitment to their work. This motivational education can increase the value of nurses' awareness.

Motivation is the energy a motivator gives to someone to persuade them to become motivated. This drive may strengthen bonds and result in excellent work [24]. Motivation is important because a company's goals will be achieved. After all, the staff will work comfortably. However, each staff member has different characteristics, so it is necessary to deepen the staff's will so that appropriate motivation can be carried out. Motivation can be achieved by providing support, appreciation, and attention [31]. The motivational education carried out in this research can open awareness among participants. Support nurses in offering creative ideas, generating self-confidence, and fostering the self-actualization of nurses in creating solutions to problems in the nursing scope. This research is not much different from the results of other research, which states that a nursing manager can support his staff in providing innovative ideas, thinking critically, and finding solutions to resolve obstacles in service so that nursing practice can improve patients' practical actions can be achieved. With encouragement from nurse managers, nurses can be directly involved, collaborate effectively, and share knowledge and experience to improve the quality of nursing services. In this way, commitment will grow within the nurses themselves [32]. Commitment in nurses is a sense of work satisfaction. So that job satisfaction of nursing staff can improve nursing services. The results of this study are consistent with other research indicating that the goal of Motivational Interviewing therapy is to enhance participants' intrinsic drive, commitment, and awareness. According to reports, motivational interviewing therapy can alter behavior by boosting participants' self-assurance in their

responsibilities, eventually improving patient care management [33].

Thus, there are various structural or human barriers in the nursing care setting. Staff members who are psychologically supported and motivated to carry out therapy under protocols will continue to exhibit creative behavior [20]. To achieve optimal motivation in the practice of nursing care, the application of this educational method cannot be done just once. It needs to be done regularly for nurses because nurse motivation can decrease for a specific time. This motivational teaching method can be applied to other hospitals with the same characteristics as the participants studied. However, there are some obstacles to its large-scale application, especially when other hospitals' environmental conditions, characteristics, and management systems are different. This requires the involvement of hospital management as it involves budgets as incentives and the need for regular implementation.

H. Output of Action Research

The outcome of this action study is developing a model of nurses' motivational elements in using UTI bundle management. This model shows how external factors that cause dissatisfaction, such as work culture, workload, supervisor supervision, and health facilities, and internal factors that cause satisfaction, such as reward, dedication, work interest, and knowledge and skills, affect a nurse's motivation. It is intended that this model will serve as a resource for nurse managers or leaders to understand the reasons behind nurses' job satisfaction and dissatisfaction. This could enable nurse managers to provide education or motivation to their staff members and devise plans to build and create favorable work environments.

IV. CONCLUSION

This study employs a one-cycle action research approach and is qualitative in nature. Its findings indicate that a deficiency in nurses' motivation or internal awareness is one of the barriers to implementing UTI bundle management. Therefore, developing a solution that all parties approve of is essential. In this instance, it is to build a suitable instructional methodology. The result of this research is a design for an educational technique for motivational training that can be used by nurses in the Universitas Sumatera Utara Hospital's inpatient ward. This model explains the elements that affect nurses' motivation in the inpatient room at the research site: internal factors related to cleanliness and external aspects related to motivators.

Implementing nurses are psychologically motivated to perform UTI bundle management through motivational education. This is demonstrated by the findings of the observations and reflections made during the focus group discussion (FGD), which was conducted one month following the experts' instruction. This motivational education technique can be incorporated into essential nursing practice by integrating it into continuous education and training programs. Nursing leaders can use Herzberg's theory to track and evaluate nurse motivation and detect it during implementing UTI bundles.

Some of the study's limitations include evidence that the same people took part and that it took a long time to finish because of numerous focus group discussions and observations of its use in the patient care room. As a result, it will not be easy to schedule the four FGD sessions, and there is a possibility that participants will withdraw.

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