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Responses to Perioperative Challenges of Student Nurses in University

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ABSTRACT

Nursing is primarily a practical discipline. Thus, clinical learning experience is an integral part in the nursing curriculum. The perioperative setting is challenging, particularly for student nurses with limited exposure to this area. These difficulties cannot be taken for granted because the Operating Room has a profound effect on those who enter it.As personally experienced by the researcher and as observed by nursing curriculum graduates, perioperative exposure entails a different level of stress to student nurses which serve as a challenge and thus the display of varied responses to it. As a clinical instructor always assigned in the

Operating Room to supervise student nurses, it is vital to identify the responses to perioperative demands encountered by students. This study aimed to determine the responses of level III student nurses to perioperative challenges. This study utilized the descriptive method using a researcher-made questionnaire with follow-up interviews. The findings revealed that level III student nurses experience physiologic and emotional-behavioral responses to perioperative demands. A weak relationship between the respondents' profile and their responses was also found out. The researcher recommends implementing the proposed action plan and conducting an investigation to confirm or reject weak relationships between the respondents' profile and responses to perioperative challenges.

Keywords — Surgical nursing, perioperative challenges, student nurses, operating room, Descriptive**,** Philippines

INTRODUCTION

Nursing is primarily a practical discipline. Thus, clinical learning experience is an integral part in the nursing curriculum. Clinical education is a vital component in nursing courses and provides student nurses with the opportunity to combine knowledge, skills, and positive attitude.

Perioperative nursing includes nursing care given before (preoperative), during (intraoperative), and after (postoperative) surgery. It may take place in the hospital, in a surgical center attached to a hospital, in a free-standing surgical center, or in a physician's office. Perioperative nursing is a fast-paced, changing and challenging field to work (Perry & Potter, 2009).

Board of Nursing Resolution No.357 mandates nursing students to comply with the requirements of their operating room and delivery room cases before graduation. Thus, the academe should ensure that students can experience perioperative nursing in the clinical setting to achieve the required number of cases.

Stress refers to the widespread, generalized responses of the body to various environmental, physical and social situations. It is a force that affects emotions and motives. It affects people of all ages and can be both good and bad. Each person reacts differently to stress. Stress is part and parcel of everyone's life, whether that be a teenager or an adult. Increased stress is seen in people because of high competition and pressure. There are many adverse effects of stress.

As personally experienced by the researcher and as observed by graduate nurses, perioperative exposure entails a different level of stress to student nurses

which serves as a challenge and thus the display of varied responses to it. These reactions could either yield positive or negative results to the student nurses performance of perioperative skills.

As a clinical instructor who is always assigned in the operating room to supervise student nurses, it is vital to identify the responses to perioperative challenges encountered by students.

Upon informal interview of level III students who have had their perioperative exposure, challenges faced in the operating room included preoperative assessment, the performance of intraoperative skills, knowledge on the operations performed, assessment of postoperative complications and accomplishment of the written requirements.

Among the ten clinical instructors initially interviewed, seven mentioned usual observations on the responses of level III students to perioperative challenges. These are sweaty palms, cold hands and feet, inability to concentrate on tasks, forgetfulness, and blocking, and effectiveness in problem solving.

Although there are existing studies pertaining to perioperative response but studies involving student nurses are limited at present. Understanding how student nurses learn in the clinical workplace setting can assist academics and clinical teachers to support and facilitate such learning.

With the above mentioned challenges experience by nurses, this study aimed to determine responses of Level III student nurses of the University to perioperative challenges. The findings served as bases for a proposed action plan. Specifically, it sought to identify the profile of the respondents, perioperative challenges experienced by Level III student nurses, their physiologic and emotional-behavioral responses to perioperative challenges, the significant relationship between the respondents' profile and the responses to perioperative challenges, and the action plan proposed.

FRAMEWORK

This study is anchored on Folkman's Stress and Coping Theory which explains the reason why some individuals find a particular situation stressful and others not. The Lazarus model is a social cognitive model that identifies cognitive appraisal as the mediator between the situational demand and the individual response (Walker, 2012).

The Commission on Higher Education (CHED) Memorandum Order No. 30, series of 2001 also known as the "Updated Policies and Standards for Nursing Education" has included concepts on the care of perioperative patients under

NCM 102 (Curative and Rehabilitative Nursing Care Management I) of the nursing curriculum. In connection to this, Nursing Board Resolution No. 357, series of 2004 requires nursing graduates to accomplish five major and five minor cases before taking the Nurse Licensure Examination.

Although the nursing school provides the theoretical knowledge needed to perform adequately nursing functions, practical skills need to be learned and reinforced in the clinical setting. One way to ensure competency is to provide time for practicing skills throughout the orientation (Gavlak, 2007).

Perioperative nursing includes nursing care given before (preoperative), during (intraoperative), and after (postoperative) surgery. It may take place in the hospital, in a surgical center attached to a hospital, in a free-standing surgical center, or in a physician's office. Perioperative nursing is a fast-paced, changing and challenging field to work (Perry & Potter, 2009).

Association of Operating Room Nurses (AORN) was formed to gain knowledge of principles and methods surgical nursing to improve patient care. The organization developed standards of nursing practice that outline the scope of responsibility of the perioperative nurse. The standards of perioperative nursing include administrative practice, clinical practice, professional performance, quality improvement, client outcomes (Perry & Potter, 2009).

The learner in the perioperative environment may be a medical, nursing, or surgical technology student enrolled in a formal educational program. Students have a surgical rotation that includes participation in surgical procedures. They learn some of the basic principles of surgical technology and the sterile technique to ensure safety and welfare of patients (Phillips, 2016).

Learning is a process of discovery and mastery of skills. Performance-based learning to function competently in an area such as the perioperative environment should take place on three levels: cognitive, psychomotor and effective. The learner should know why to do what (cognitive); how (psychomotor); and when, where and by whom (affective). Learning to adapt to the variety of tasks and ever-changing demands in the perioperative environment is difficult. Some anxiety is to be expected, especially in situations in which feelings of insecurity are generated, or a sense of intimidation pervades the environment. At times the demands of the job may seem to outweigh the personal resources of the caregiver. Confidence develops as skills are learned (Phillips, 2016).

The Philippine Board of Nursing (BON) developed a clinical teaching plan for the Operating Room exposure of the nursing students three objectives to be achieved by the students. First objective is, to render safe, comprehensive nursing care to an intraoperative client. Second is, to assist in major and minor surgical

cases in close coordination with the members of the surgical team. Lastly, to apply the nursing process in rendering intraoperative nursing care to clients. Nursing competencies to be achieved are specified and categorized according to the following: Safe and Quality Nursing Care; Management of Resources and Environment; Health Education; Legal Responsibilities; Ethico-Moral Responsibilities; Personal and Professional Development; Quality Improvement; Research; Records Management; Communication; and Collaboration and Teamwork (CHED, 2009).

Gaining control over new or difficult situation leads to pleasure or delight and to an increase in self-confidence and self-esteem. Psychologists have long recognized personal mastery as an important source of intrinsic motivation. It also seems that information-processing systems may be blasted to support perceptions of mastery, including exaggerated perceptions of personal control, unrealistically positive views of the self and unrealistic optimism (Walker, 2012).

Mohr (2006) further identified behavioral and emotional responses to stress in 2006. This includes anxiety, depression, burnout, feelings of inadequacy, loss of self-esteem, increased irritability, loss of motivation, loss of interest, and emotional outbursts and crying. Behavioral responses include increased use of chemical substances, change in eating habits, sleep and activity pattern, mental exhaustion, decreased productivity and quality of job performance, tendency to make mistakes, forgetfulness and blocking, diminished attention to detail, preoccupation, inability to concentrate on tasks, increased absenteeism and illness, lethargy, proneness to accidents.

As stated in Betty Neuman's System Model (1982), man is a unique individual and is affected by many known and unknown universal environment stressors. Neuman classifies stressors as intrapersonal, interpersonal, or extrapersonal in nature. Intrapersonal stressors are those that occur within the client system boundary and correlate with the internal environment. Interpersonal stressors occur outside the client system boundary are proximal to the system and have an impact on the system. Extrapersonal stressors occur outside the system boundary but are at greater distance from the system than are interpersonal stressors. These stressors are stimuli that produce tensions (Alligood, 2013).

Physical and emotional stresses are part of the daily life. Stress is the nonspecific reaction of the body, physiologically and psychologically, to any demand. The challenge may be pleasant or unpleasant, conscious or unconscious. The intensity of the stressor will dictate adaptation. An individual's perception of a situation will influence the reaction to it (Phillips, 2016).

Stress is not only an essential part of life but also a useful stimulant. Positive stress, referred to as eustress, motivates an individual to be productive and efficient. It forces adaptation to the ever-present changes in the perioperative environment. The response should be quick. To expect the unexpected is part of the perioperative patient care. Eustress fosters a sense of achievement, satisfaction, and self-confidence (Phillips, 2016).

Mohr identified physiological responses. Responses include elevated blood pressure, increased muscle tension in neck, shoulders, back, elevated pulse and respiratory rates, and cold and clammy palms, hands and feet. In addition slumped posture, fatigue, tension headache, upset stomach, higher-pitched voice, nausea, vomiting and diarrhea, anorexia, change in weight, change in urinary frequency, restlessness, difficulty falling asleep or frequent awakening, and mydriasis may be experienced (Mohr, 2006).

Mind and body affect each other. The mind operates at the levels of thinking, emotion, and action. Mind and body cannot act independently on parallel lines. Theirs is an integrated response inseparable from each other. The individual is in active relation to the environment and his environment influences and changes him. His behavior consists of dealings with the environment. All behavior is a function of the individual and his environment, both of which undergo changes because of their interaction with one another (Anthikad, 2007).

Thought processes are mediators between the situational demand (the stressor) and the emotional and behavioral coping responses. Together with Averill, they proposed a three-stage model of appraisal in 1972. Primary appraisal is the immediate response to a new demand, situation or event when the individual determines if this represents a threat. There are three possible outcomes to primary appraisal. One is, when the situation is disregarded as insignificant or unrelated. Another is, when it is evaluated as a challenge likely to have a favorable outcome if appropriate action is taken. Lastly, when it is identified as a potential threat to physical or mental well-being.

Secondary appraisal refers to the assessment of coping alternatives, during which the individual decides what to do about the perceived threat. Very broadly, the behavioral choices available reflect the three dimensions of locus of control and include: taking personal action to deal with the situation (internal or personal control); seeking help from others to deal with the situation (external powerful other control); doing nothing or ignoring it (external chance control). Reappraisal then takes place in which the individual considers the appropriateness of their judgment and the outcome of their coping response (Walker, 2012).

In humans, the fight or flight response occurs as an immediate reaction to a situation that is perceived as novel or threatening. The response is a physiological one that involves the arousal of the autonomic nervous system and release of adrenalin. This activates the body by causing glycogenolysis, increasing cardiovascular activity, increasing blood viscosity, rerouting of blood from the digestive organs and skin to the brain and muscles, increasing respiratory rate and depth, and mydriasis (Walker, 2012).

An organismic response according to Myra Levine in her Conservation Model is a change in behavior or change in the level of functioning during an attempt to adapt to the environment. The organismic responses are intended to maintain the person's integrity. According to Levine, the levels of organismic response include response to fear (flight/fight response) which is the most basic response. It is the physiological and behavioral readiness to respond to a sudden and unexpected environmental change; it is an instantaneous response to a real or imagined threat. The inflammatory response is the second level of response intended to provide for structural integrity and the promotion of healing. Both are defenses against noxious stimuli and the initiation of healing.

Response to stress is the third level of response, which is developed over time and influenced by each stressful experience encountered by the person. If the experience is prolonged, the stress can lead to damage to the systems. Perceptual responses refer to the 4th level of response. It involves gathering information from the environment and converting into to a meaningful experience.

The organismic responses are redundant in the sense that they coexist. The four responses help individuals protect and maintain their integrity. They are integrated by their cognitive abilities, the wealth of previous experiences, the ability to define relationships, and the strength of their adaptive abilities (Parker & Smith, 2010).

The model supports understanding and description, both qualitative and quantitative approaches are appropriate to develop the model and theories derived from the model. The qualitative approach helps to explain how the student experiences the challenges to their internal and external environments. The quantitative approach helps to test the relationships between the variables and in some cases, provides for the testing of causal models. These predictive models help clinicians alter the environments to promote adaptation and maintain wholeness (Parker & Smith, 2010).

Stress that becomes overwhelming and uncomfortable is referred to as distress. In the perioperative environment, the behavior of others may be perceived as

cause for distress. Policies, or lack of them, can also be a source of distress if they are in conflict with the caregiver's expectations (Phillips, 2016).

Understanding how student nurses learn in the clinical workplace setting can assist academics and clinical teachers to support and facilitate such learning. Those who lack knowledge, skills and experience are clearly at a disadvantage when faced with new demands. This explains why stress responses may vary according to such variables as age, gender, education and social class. As people get older, they are exposed to a wider variety of situations and are therefore less likely to find new conditions stressful, though some older people may be resistant to change. On the other hand, younger people may perceive less danger and some may actively seek the challenge of dangerous activities.

Men and women respond differently because they are often exposed to different types of challenge or danger during their lifetimes, acquire different skills, and demonstrate different ways of coping. It also appears that women are more likely than men to seek or provide social support. People differ in the knowledge and skills they bring to different types of situation due to different levels of educational attainment and job experience. Finally, those with strong social networks of family and friends are more likely to have help available than those who are socially isolated. These variables are likely to interact with each other such that those with little knowledge, skill or experience and who are socially isolated are least likely to cope successfully with new and challenging situations (Walker, 2012).

All perioperative staff members indirectly assist in teaching the learners within the guidelines of the structured learning experience. The learners gain knowledge by observing and working with members of the team. Everyone should be familiar with the level of the learners, the behavioral objectives, and the teaching roles that staff members will be expected to assume. Learners also should be responsible for updating the staff about needed experience and their current level of achievement (Phillips, 2016).

METHODOLOGY

This study utilized the descriptive method using a researcher-made questionnaire with follow up interviews. The study involved level III BSN students of a University. The respondents were chosen through purposive sampling. The respondents chosen were those who had their Operating Room (OR) related experience (RLE) and took care of the patient throughout the entire

perioperative experience. Among 1,118 level III students, 600 respondents were taken which is nearly 60 % of the population.

Students were categorized as to basic, shiftees and second-degree coursers. Basic are the fresh high school graduates who opted to enroll in the college of nursing; shiftees are students who previously enrolled in another program before entering the nursing program and Second Degree Coursers are students who graduated or obtained a degree before enrolling in the nursing program.

This study utilized a researcher-made questionnaire. The crafted questionnaire was based on the related literature on perioperative challenges. The reliability of the instruments was tested by means of conducting a pilot testing among fifty (50) students who were not included in the actual study. The accomplished questionnaires were processed and the items that were no answered and the trend of responses were noted. Since, the dry-run respondents were able to answer all the questions within a reasonable range of variation, the instruments were then finalized, for administration

The questionnaire was composed of three parts. Part I refers to the respondents' profile. Part II enumerates the common perioperative challenges experienced by student nurses of the University. Respondents were asked to rank the listed challenges according to the degree of difficulty. The challenges were drawn out from the list of Operating Room competencies of the Board of Nursing and conducted informal interviews. Part III determines the varied responses of the student nurses to perioperative challenges. A check mark was placed on any of the scales representing the respondents' rating for their responses. It includes always, often, occasionally, seldom and never experienced.

As an initial preparation for the gathering of data, the researcher wrote a transmittal letter to the Dean of the College of Nursing of the University to ask permission to conduct a study among the Level III student nurses. After the approval, the researcher then prepared the questionnaire.

Before the final administration of the tool, the contents were validated and had undergone pilot testing. Proper protocols on the collection of data were reviewed and the student respondents were made to sign a consent form to signify their willingness to be part of the study. The confidentiality of the respondents and the data were also properly observed.

Questionnaires were distributed to the respondents based on the arranged schedule by the level chairperson. The respondents were instructed on how to answer the questionnaire and were encouraged not to leave any item unanswered.

Frequency Distribution was used to interpret the respondents' profile, perioperative challenges, and the responses.

Chi-Square Test was used to determine the relationship between the respondents' profile and the responses to perioperative challenges.

RESULTS AND DISCUSSION

Table 1. Distribution of Respondents' Profile (n=600)

Profile	Counts	Percent
Age		
19-35 years old	468	78.00
12-18 years old	132	22.00
Gender		
Male	220	36.67
Female	380	63.33
Civil Status		
Single	490	81.67
Married	104	17.33
Student category		
Basic	534	89.00
Shiftee	50	8.33
Second Course	6	2.67

Table 1 displays that 78% of the respondents were already young adults; while only few were in the stage of adolescence. This data denotes that majority of the students who had undergone related learning experience in the operating room had acquired certain degree of maturity to deal with the psychological effect of dealing with patients. According to Walker (2012), as people get older, they are exposed to a wider variety of situations and are therefore less likely to find new situations stressful, though some older people may be resistant to change. On the other hand, younger people may perceive less danger and some may actively seek the challenge of dangerous activities.

Female gender dominates the population at 63.33%. This result means that the females are more engrossed to enter the nursing profession. Although people's perception may change, there a number of nurses think that this profession is considered as a more feminine (Middleton,2008).

Almost 82% (81.67%) of the respondents were single. In the current generation, the younger generation prefers to finish a college degree first before marriage. Lastly, 89% belongs to the basic student category, although there were 50 (8.33%) students who shift to nursing from other course. This situation is attributed to the stringent requirements for those students who shifted from one program to the other. So, there were only few who will pass those and were ready to start from 1st year.

Those who lack knowledge, skills and experience are clearly at a disadvantage when faced with new demands. This explains why stress responses may vary according to such variables as age, gender, education and social class (Walker, 2012).

Table 2. Distribution of Respondents as to Experiences of Perioperative Challenges

Rank	Indicators	Counts
1	Performance of the function of scrub nurse competently.	4030
2	Performance of the functions of a circulating nurse competently.	3749
3	Observation of the principles of surgical aseptic techniques and medical asepsis within the work area at all times.	3738
4	Timely submission of complete and accurate surgical slips and OR write-ups for cases handled.	3496
5	Identification of priority needs of the client for surgery.	3471
6	Provision of health education based on identified learning needs of the intraoperative client.	3450
7	Observation of complete and accurate endorsement procedures.	3394
8	Checking of the completeness of informed consent and other legal forms.	3300
9	Determination of client's preparation for surgery by checking the preoperative checklist.	3284
10	Assessment of client's physical and psychological health needs and relate to information from the chart and ward endorsements.	3231

The respondents found performance of the function of scrub nurse competently as the most challenging perioperative experience (4,030 counts). The least challenging experienced of the student nurses during their exposure at the operating room was on how to assess the client's physical and psychological

health needs and relate them to information from the chart and ward endorsement (3,231 counts).

The perioperative setting is challenging, especially for new graduates and attendants with constrained introduction to this zone. This can't be disregarded because the OR profoundly affects the individuals who enter it. The perioperative introduction time frame frequently is the time for testing in which new medical attendants choose in the event that they can adjust to the OR condition. Adjustment accompanies authority of basic information and abilities for perioperative practice and improvement of self-assurance. As the new attendant builds up these aptitudes, the perioperative setting turns out to be more natural and agreeable. Giving new attendants a solid, hypothetical base and basic capabilities for training in the perioperative setting diminishes disappointment and increment positive encounters amid their introduction, prompting higher maintenance of nursing staff individuals (Penprase, 2000).

Table 3. Physiologic and Emotional-Behavioral Responses (n = 600)

Challenges	Physiologic Responses		Emotional-Behavioral Responses	
	Mean	Interpretation	Mean	Interpretation
Assessment of client's physical and psychological health needs and relate to information from the chart and ward endorsements.	2.73	Sometimes	2.81	Sometimes
Determination of client's preparation for surgery by checking the preoperative checklist.	2.81	Sometimes	2.86	Sometimes
Identification of priority needs of the client for surgery.	2.79	Sometimes	2.83	Sometimes
Observation of the principles of surgical aseptic techniques and medical asepsis within the work area at all times.	2.89	Sometimes	2.87	Sometimes
Performance of the function of scrub nurse competently.	2.91	Sometimes	2.88	Sometimes

Challenges	Physiologic Responses		Emotional-Behavioral Responses	
	Mean	Interpretation	Mean	Interpretation
Performance of the functions of a circulating nurse competently.	2.86	Sometimes	2.90	Sometimes
Provision of health education based on identified learning needs of the intraoperative client.	2.94	Sometimes	2.97	Sometimes
Checking of the completeness of informed consent and other legal forms.	2.91	Sometimes	2.92	Sometimes
Timely submission of complete and accurate surgical slips and OR write-ups for cases handled.	2.92	Sometimes	2.93	Sometimes
Observation of complete and accurate endorsement procedures.	.93	Sometimes	2.95	Sometimes
General Aggregate Mean	**2.87**	**Sometimes**	**2.89**	**Sometimes**

Legend: 4.20-5.00 (Always); 3.40-4.19 (Often); 2.60-3.39 (Sometimes); 1.80-2.59 (Seldom); 1.00-1.79 (Never)

Table 3 shows that the student nurses sometimes experience physiologic and emotional-behavioral responses during their experience at the operating room in the hospital as indicated by the general aggregate mean of 2.87 and 2.89, respectively. The results imply that the respondents experienced physiological and emotional-behavioral responses to perioperative challenges in many but not majority of cases. The frequency distribution was used to interpret the data on the perioperative challenges experienced by the student nurses.

Generally, nursing students considerably experience substantially more stress during those times that they are still in school compare during their first year of work. Preceptorship is among the most distressing that a student encounters. It is inside the setting of a testing and on occasion of overwhelming workplace that two complete unfamiliar concepts (preceptor and student) endeavor to oblige each other inside a proficient limit. On the off chance that the connection amongst preceptor and student is not as much as fruitful, not exclusively would it

be able to be disappointing and demoralizing, yet it can bring about understudy stress and dissatisfaction about nursing and powerlessness to coordinate and learn (Yonge, Myrick, & Haase, 2002).

Physical and emotional stresses are part of the daily life. Stress is the nonspecific reaction of the body, physiologically and psychologically, to any demand. The demand may be pleasant or unpleasant, conscious or unconscious. The intensity of the stressor will dictate adaptation. An individual's perception of a situation will influence the reaction to it (Phillips, 2016).

Table 4. Test of Relationship Between Profile and Responses to Perioperative Challenges

Indicator	**Paired Variables**	**Chi-Square Computed Value**	**df**	**Critical Value**	**Significance**
1. *Assessment of client's physical and psychological health needs and relate to information from the chart and ward endorsements*	Gender & Perioperative Challenge 1	13.4541	1	3.84	Significant C= 0.148 Very Weak
	Civil Status & Perioperative Challenge 1	30.4733	2	5.99	Significant C= 0.220 Very Weak
	Student Category & Perioperative Challenge 1	16.2841	2	5.99	Significant C= 0.163 Very Weak
2. *Determination of client's preparation for surgery by checking the preoperative checklist.*	Gender & Perioperative Challenge 2	17.9772	1	3.84	Significant C= 0.171 Very Weak
	Civil Status & Perioperative Challenge 2	11.1598	2	5.99	Significant C= 0.135 Very Weak
3. *Identification of priority needs of the client for surgery*	Civil Status & Perioperative 3	22.5712	2	5.99	Significant C= 0.190 Very Weak
	Student Category & Perioperative Challenge 3	9.5723	2	5.99	Significant C= 0.125 Very Weak

5. *Performance of the function of scrub nurse competently*	Age & Perioperative Challenge 5	37.6871	1	3.84	Significant C= 0.243 Weak
	Civil Status & Perioperative Challenge 5	12.6938	2	5.99	Significant C= 0.144 Very Weak
6. *Performance of the functions of a circulating nurse competently*	Gender & Perioperative Challenge 6	37.9042	1	3.84	Significant C= 0.244 Weak
7. *Provision of health education based on identified learning needs of the intraoperative client*	Student Category & Perioperative Challenge 7	12.5206	2	5.99	Significant C= 0.143 Very Weak
8. *Checking the completeness of informed consent and other legal forms*	Age & Perioperative Challenge 8	73.0052	1	3.84	Significant C= 0.329 Weak
	Gender & Perioperative Challenge 8	28.3882	1	3.84	Significant C= 0.213 Weak
9. *Timely submission of complete and accurate surgical slips and OR write-ups for cases handled*	Gender & Perioperative Challenge 9	37.9042	1	3.84	Significant C= 0.244 Weak
10. *Observation of complete and accurate endorsement procedures*	Student Category & Perioperative Challenge 10	12.5206	2	5.99	Significant C= 0.143 Very Weak

Table 4 presents the data on the results on the test of significant relationship between the profile of the student nurses and their responses to perioperative challenges. The chi-square computed value of 13.4541, 30.4733 and 16.2841

indicate that there was a very weak relationship between the gender, civil status and student category and their assessment of client's physical and psychological health needs and how they relate them to information from the chart and ward endorsements. These results imply that whether students were male or female; single or married; and basic or shiftees, it has connection on how they make assessment on the patient's state and how they relate this information from the record and in making endorsements.

Further, there is also a very weak relationship between gender and civil status of the respondents and their perioperative challenges in the determination of client's preparation for surgery by checking the preoperative checklist based on the chi-square computed value of 17.9772 and 11.1598 respectively. These data signify that sex and family situation of the students relates on how they take care of their patients in terms of preparing them for a procedure in the operating room.

Moreover, the respondents' civil status and student category have very weak relationship on their responses to perioperative challenge in terms of identifying the priority needs of the client for surgery, as indicated by the chi-square computed value of 22.5712 and 9.5723. These data signify that the subjects' family situation and student category relates to their ability to recognize what are the important things needed by the patients before undergoing surgical procedure.

Further, there is a weak relationship between the age and the perioperative challenge in the performance of the function as a scrub nurse competently, while there is a very weak relationship between the civil status and the same challenge as indicated by the Chi-square computed value of 3 7.6871 and 12.6938 respectively. These data can be inferred that the age and civil status of the respondents relates to their competence in the performance as a scrub nurse.

The chi-square computed value of 37.9042 indicates that there is a weak relationship between the students' gender and their perioperative challenge in the context of the performance of the functions of a circulating nurse competently. The gender relates to the students' ability to perform properly as a circulating nurse.

In addition, the chi-square computed value of 12.5206 reveals that there is a very weak relationship between the students' category and their perioperative challenge in terms of providing health education based on identified learning needs of the intraoperative client. This result means that the students' category is connected on how they deliver useful knowledge and education pertaining to health but not at a great extent.

There is a weak relationship between the student nurses' gender and perioperative challenges in terms of timely submission of complete and accurate surgical slips and OR write-ups for cases handled based on the Chi-square computed value of 37.9042. It would mean that there is variation on male and females' compliance in preparing documents related to the patients' case.

There is also s a very weak relationship between the students' category and their perioperative challenges in the aspect of observing the complete and accurate endorsement procedures as indicated by the Chi-square computed of 12.5206. This would mean that whether the students are regular, shiftees or second coursers, it has some connected on their ability to make a comprehensive endorsement procedure as part of properly handing patients but not at a great extent.

Chi-square test of independence was used to determine the relationship between the respondents' profile and the responses to perioperative challenges.

Mind and body affect each other. The mind operates at the levels of thinking, emotion and action. Mind and body cannot act independently on parallel lines. Theirs is an integrated response inseparable from each other. The individual is in active relation to the environment and his environment influences and changes him. His behavior consists of dealings with the environment. All behavior is a function of the individual and his environment, both of which undergo changes because of their interaction with one another (Anthikad, 2007).

Perioperative nursing is an exceptionally concentrated nursing practice, which is regularly underutilized for undergrad clinical arrangement encounter. The earth is seen as mechanical. Specialists perceive the broad learning openings accessible to undergrad medical caretakers' in this condition. The readiness of fledgling medical attendants in a perioperative domain ought to incorporate setting them up to distinguish the distinctions in understanding consideration in an option setting (Callaghan, 2011).

CONCLUSION

The nursing students in the University experienced both physiologic and emotional-behavioral responses to perioperative challenges. These physiologic reactions are the automatic bodily responses or physical reaction that they manifest in the course of performing these tasks as students student nurses. They also exhibit the emotional response especially that they are taking care of patients who had undergone operative and other invasive procedures which had higher tendency to show emotional stress.

TRANSLATIONAL RESEARCH

The propensity of the student nurses to show physiologic, emotional and behavioral responses in the perioperative nursing, so the results were used on the crafting of a proposed action plan to help the nurses manage some emotional challenges in the course of the nursing job.

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