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RESEARCH ARTICLE

NURSING MANAGEMENT OF COMPLICATIONS IN PATIENTS WITH SKELETAL TRACTION.

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Abstract

Nursing management is crucial in the prevention of complication of a post-surgery patient particularly those under skeletal traction. This inquiry illumines client's assessment on nursing management in terms of assessing, examining, intervening, monitoring, and educating as factor implicit to changes in the degree of complications in integumentary, respiratory, circulatory, excretory and digestive system. The design of the study is a mixed method schemed at 50 limited skeletal traction patients in the Orthopedic Ward of Vicente Sotto Memorial Medical Center, a tertiary hospital. A valid & reliable researcher made questionnaire with interview guide has employed. Findings show that most respondents were 20 to 30 years old male, in the mid-level education, and have meagre monthly income. Notable nursing management shows an/a, always localized pain in assessment; periodic repositioning in examining; water intake in intervening; intake and output in monitoring; and, right foods to eat in educating. Degree of complications were described minimal. This deduced that nursing management must be carefully and strictly observed at all-times. Recommendations are regular ward class, trainings & seminars for staff nurses, and further study on nursing management of neuromuscular system.

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Introduction:-

Nursing management is crucial in the prevention of post-surgery complications as it reduces risk of disuse syndrome, decreases time of hospitalization, and extends care in the home setting (Smeltzer and Bare, 2004). Traction is a common tool being used in post-surgery of orthopedic cases as a short-term intervention prior other modality. According to Musaje (2012), the "gold standard method" of care must be always remembered and concretize to prevent post-surgical complications such as stiffness, infection or sepsis, bone misalignment, pain, and pulmonary problems to name few.

According to Davis (2002), skeletal traction such as wires and pins used to apply and remain for many years with the support of the use fixators in the external to support and maintain the alignment of the bone in the duration of healing. Authors (Sims and Saleh, 2000; Santy, 2000) claimed that management practice varies or diverse which are oftentimes lack consistency and contradictory. With this, nursing management is a crucial role. Biz et al. (2018) enjoins that nurses are a change agent in the immediate recovery of the patients and that wound healing with proper nursing management has found to be favorable.

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Moreover, the nurse must be aware of the psychological and physiological impact of the musculoskeletal problem, especially the patients who are under traction device. It must be taken into consideration that patients under this kind of treatment regimen often require a great deal of nursing management (Smeltzer & Bare, 2004).

However, dealing with orthopedic patients with a traction seems to be not only a local but an international problem of nurses. For an instance, there is a lack of clinical guidelines in local, national, and international as a basis of best practices (Davis et al., 2001; Lee-Smith et al., 2001). Recent authors (Biz et al., 2018; Herscovici, 2018) claimed that different complications may emerged with patients having traction due to lack of clinical guidelines in the assessment, planning, and intervention or education.

Therefore, this paper aims to assess the nursing management on clients with traction in terms of assessing, examining, intervening, monitoring, and educating as factor implicit to changes in the degree of complications in integumentary, respiratory, circulatory, excretory and digestive system.

Methodology:-

This research employed mixed method design - quantitative description of findings complemented by qualitative data through interview and focus-group-discussion (FGD). It was conducted at Orthopedic Ward of Vicente Sotto Memorial Medical Center (VSMMC), an 800-bed Tertiary Regional Government Training Hospital (a public hospital) located in B. Rodriguez Street, Cebu City. The Orthopedic Ward is one section in hospital that can accommodate as much as 80-100 patients. In as much as the hospital is located in the heart of the city, it answers the health needs of many people especially those people that belong to low socioeconomic level, not only from Cebu City, but also the patients coming from several parts of Mindanao, Philippines.

The number of respondents considered were 50 which considered through convenient sampling technique because only VSMMC can provide considerable number of respondents. In the period of data gathering, 50 were the exhausted number of qualified respondents with consideration to age, gender, educational attainment, family monthly income, and with skeletal traction limited to the types such as Kirsch wire, Steinman Pin, and Russell's traction.

Prior data gathering, researcher secured ethical clearance in the University of Liceo de Cagayan, Cagayan de Oro City. The researcher made questionnaire underwent validity and reliability test which deemed to be valid and reliable (Cronbach $\alpha = 0.8667$). Informed consent was also casted to all of the respondents of the study. Data gathering was made possible with the assistance of the staff nurses and head of the ward unit, after which, data gathered was tabulated, analyzed, and interpreted using frequency, percentage, weighted mean, standard deviation, and Pearson r correlation coefficient.

Results and Discussion:-

The data indicate that the respondents with most number of skeletal traction cases are male between the ages of 20 and 30 years. A recent study in the California concluded that motorcycle riders between the ages 16 and 29 are significantly over-represented in accidents; motorcycle riders between the ages of 30 and 50 are significantly under represented. Accidents are found to be common among the population that belongs to the middle-income bracket due to its economic benefits. However, the majority of the accident-involved motorcycle riders are male (69%) due to impulsiveness and lack of self-control (Rosen et al., 2001).

Table 1:-Frequency and Percentage Distribution, Respondents' Profile.

Respondent's Profile	Frequency	%
Age (in years)	34	68.0
20-30		
31-40	5	10.0
41-50	6	12.0
51-60	2	4.0
61-68	3	6.0
Sex	28	56.0
Male		
Female	22	44.0

Educational Attainment	17	34.0
Elementary		
Secondary	20	40.0
Vocational	1	2.0
College	12	24.0
Family Monthly Income	6	12.0
13,000 pesos & above		
6,000 – 12,999 pesos	11	22.0
5,000 pesos & Below	33	66.0
Total	50	100.0

Table 2 presents the clients' assessment on nursing management in terms of the assessing the patients. As shown in the table, the nursing management with the highest rating was asking the patient to localize pain / discomfort and was verbally described as always. On the other hand, the lowest rated items fall on assessing the sensation of peroneal nerve by pinching in pinprick in the dorsal area between the 1st and 2nd toes and assess foot's ability to dorsiflex and was verbally described as occasional. However, the overall verbal description was often.

Table 2:-Clients Assessment on Nursing Management in terms of Assessing the Patient.

Indicators	Mean	Standard Deviation	Description
1. Auscultates for breath sounds noting normal sounds.	3.90	1.23	Often
2. Assesses capillary return, skin color and warmth.	3.86	1.15	Often
3. Performs neurovascular assessments, noting changes in motor/sensory functions.	3.79	1.07	Often
4. Asks patient to localize pain/ discomfort	4.24	1.06	Always
5. Assesses the sensation of peroneal nerve by pinching or pinprick in the dorsal area between the 1 st and 2 nd toes and assess foot's ability to dorsiflex.	3.15	1.52	Occasional
Grand Mean:	3.79	0.77	Often

The data revealed that if the required assessment is done regularly and correctly on the orthopedic trauma, potential complications can be minimized. Bedside rounds between shifts may be useful to ensure continuous assessment of neurovascular compromise, pain, skin breakdown, nutrition deficit and signs of infection (Davis, 2001). Moreover, the results showed that assessing of the patients by the nurse was found to be beneficial to the patients with traction and were given ratings that were categorized as highly effective and effective respectively.

The data imply that items 8, 13, 14 and 20 were not found to be as high compared to item 15 because those items require more time that prevents the nurse of doing it because of a 1:40 nurse-patients ratio. With so many patients assigned to only one (1) nurse, limited time was spent for every patient that requires the same nursing management.

Table 3 presents the clients' assessment on nursing management in terms of examining the patient. As presented, the item with the highest rating is on examining the position periodically to stabilize lower limb fractures was verbally described as often: while item on which examines skin regularly got the lowest rating and was verbally categorized as occasional. However, the overall mean was verbally described as often.

Table 3:-Clients Assessment on Nursing Management in terms of Examining the Patient.

Indicators	Mean	Standard Deviation	Description
1. Examines the position of the patient to periodically stabilize the lower limb fractures.	4.02	1.26	Often
2. Examines the position of the patient to periodically stabilize the lower limb fractures.	4.02	1.26	Often
Grand Mean:	3.74	0.88	Often

The data revealed that changing the position periodically ensures that the patient should be in therapeutic position that promotes physical mobility and maintaining skin integrity. Putting the patient to supine position periodically is a way of stabilizing the injured or fractured bone and promotes proper alignment that consequently gives significant effects in the healing process. Moreover, changing position of the patient on traction within the prescribed limits allows the caregiver to examine the skin and relieves pressure on the bony prominences while giving comfort at the same time (Foster, 2006).

Furthermore, it can be inferred that nurse's effort of examining the orthopedic patient in terms of regularly examining the skin and places the patient in spine position periodically to stabilize lower limb fractures was found to be effective in preventing complications as evidenced by an overall rating of 3.74 with a standard deviation of 0.88.

Table 4 shows the clients' assessment on nursing management in terms of intervening the patient. As shown, responses on the statements were found to be very close to each other. However, it was noted that the item with the highest rating is item on which encourages increase water intake while the item with the lowest rating was on massaging skin and bony prominences. The two items were verbally described as always and occasional respectively. The item #1 is rated occasionally because this nursing management requires more time to do to every patient. Due to a problem on nurse-patient ratio, this management is occasionally done if the patient has no watchers taking care of them, which happened in the ward oftentimes.

Table 4:-Clients Assessment on Nursing Management in terms of Intervening the Patient.

Indicators	Mean	Standard Deviation	Description
1. Massages skin and bony prominences	3.9	1.32	Occasional
2. Keeps bed dry and free from wrinkles	3.78	1.25	Often
3. Places protective padding under the bony prominences.	3.42	1.47	Often
4. Changes position frequently	3.82	1.29	Often
5. Encourages the use of trapeze when changing position.	3.72	1.19	Often
6. Encourages increase water intake	4.24	1.01	Always
7. Encourages increase food high in fiber	3.98	1.19	Often
Grand Mean:	3.77	0.62	Often

Rosen(2002) supports the idea that massaging the bony prominences, keeping bed dry and free from wrinkles, placing protective padding in the bony prominences, and changes the position frequently prevents and/or minimize the occurrence of bed sores or ulcers because those actions influence good circulation of blood on those areas and thereby reducing the chances of complications. However, encouraging increased water intake and monitoring of intake and output help the nurse in the assessment of any untoward long-term effects of traction which is common among those patients. It is therefore inferred that the nursing management in the table 5 where found to be often as supported by the overall rating of 3.77.

Table 5 shows the clients' assessment on nursing management in terms of monitoring the patient. As shown, the overall mean verbally described as always.

Table 5:-Clients Assessment on Nursing Management in terms of Monitoring the Patient.

Indicators	Mean	Standard Deviation	Description
1. Monitors respiratory rate effort.	4.08	1.32	Often
2. Monitor intake and output	4.52	0.74	Always
Grand Mean:	4.30	0.83	Always

The items rated the highest was monitoring the intake and output and was verbally described as always; while the item on monitoring respiratory rate and effort was rated the lowest and was categorizes as often. The data indicated that the regular monitoring of the intake and output of the patient with skeletal traction can maintain adequate fluid intake and urinary output thus it can ensure to, prevent if no to minimize the possible occurrence of urinary stasis and urinary tract infection (Rasi et al., 2015).

The data imply that the nurse as the caregiver was able to perform monitoring activities which were given ratings of 4.52 and 4.08 which were verbally categorized as always and often respectively on the two times. Item 5 was found not to be as highly effective as item 16 due to the fact that the nurse-patient ratio is really inadequate and more time demanding in doing the action. Such that, doing item # 5 is not convenient to do when compared to item # 16.

Table 6 represents the clients' assessment on nursing management in terms of educating the patient. As presented, among the four (4) nursing action statements, the highest rated item is educating the patient to on the rights food to eat or proper balance of food intake and was given a verbal description of always. However, in terms of health teaching on the uses of footboard, wrist splints, trochanter/hand rolls a lowest rating was given a verbal description of often. Taking all the nursing actions, all of the items except item # 6 are requiring more time to perform. Such that nurse-patient ratio still a determinant to the performances of the set of nursing management with regards to educating the patient.

Table 6:-Clients Assessment on Nursing Management in terms of Educating the Patient.

Indicators	Mean	Standard Deviation	Description
6. Instructs and assists with deep breathing and coughing exercises.	4.29	1.14	Always
9. Instructs and assists patient with ROM exercises of affected and unaffected extremities .	3.96	1.37	Often
10. Health teaching on how to use the footboard, wrist splints, trochanter/hand rolls.	3.73	1.45	Often
19. Health teaching on the rights food to eat.	3.49	1.38	Often
Grand Mean:	3.85	0.87	Often

The data also revealed that the nursing management in terms of educating the patient was performed often, which implied that the clients' assessment on nursing management educating have been experienced in the majority cases or circumstances but not all times.

Table 7 shows the degree of complications of skeletal traction in integumentary system in terms of pressure ulcers or bed sores. As shown, the overall mean was verbally described as minimal. The second duration of traction (2nd week of patient in traction) was found to have the highest weighted mean, which was verbally described as minimal. On the other hand, first duration of traction was rated the lowest with a weighted mean and was also verbally described as minimal.

Table 7:-Degree of Complications of Skeletal Traction in Integumentary System in terms of Pressure Ulcers.

Duration of Traction	Mean	Standard Deviation	Description
1 ST Duration	2.32	0.88	Minimal
2 nd Duration	2.50	0.89	Minimal
3 rd Duration	2.00	0.91	Minimal
Grand Mean:	2.27	0.31	Minimal

The data revealed that, for the entire duration of traction there was a minimal likelihood of the patient to develop complications in the integumentary system in terms of pressure ulcers. The nursing management in the care of the patient was categorized often, which indicated that there was an influence of it in preventing the appearance of complications.

Table 8 presents the degree of prevention of complications of skeletal traction in respiratory system in terms of presence of rales on the chest. As presented, the overall mean of the entire duration of patient on skeletal traction as to the degree of complications was verbally described as moderate. The duration of traction with the highest weighted mean is the first duration which was verbally described as moderate. On the other hand, the third duration of traction got the lowest mean and was categorized as minimal.

Table 8:-Degree of Complications of Skeletal Traction in Respiratory System in terms of Rales on Chest.

Duration of Traction	Mean	Standard Deviation	Description
1ST Duration	2.82	0.93	Minimal
2 nd Duration	2.60	0.95	Moderate
3 rd Duration	2.14	0.92	Minimal
Grand Mean:	2.52	0.79	Moderate

The data further suggests that the degree of complications of skeletal traction in the respiratory system is relatively high (Davis, 2001). This is due to the fact that mobility is limited during the early days of treatment because of pain associated to the traction process. However, it was further noted that during the third duration of traction the degree of complications became minimal, this may be due to tolerance over pain and the possible effect of good nursing management implemented on the orthopedic patients.

Table 9 represents the degree of complications of skeletal traction in the respiratory system in terms of the presence of cough. As presented, the overall mean suggests that the entire duration of traction was verbally described as minimal. The duration of traction with the highest mean is during the first duration, which was described as minimal. On the other hand, the duration with the lowest mean is the third duration which is described as minimal.

Table 9:-Degree of Complications of Skeletal Traction in Respiratory System in terms of Presence of Cough.

Duration of Traction	Mean	Standard Deviation	Description
1ST Duration	2.82	0.93	Moderate
2 nd Duration	2.60	0.95	Moderate
3 rd Duration	2.16	0.92	Minimal
Grand Mean:	2.57	0.79	Moderate

The data further revealed that for the first, second and third duration; the weighted mean fall in a range between 2.00 and 2.42, which suggest that the entire duration has only a minimum degree of complication in terms of the presence of cough as a result of skeletal traction as further evidenced by the overall mean in the table.

Table 10 shows the degree of complications of skeletal traction in the circulatory system in terms of DVT/venous stasis. As shown, the overall mean falls on the category moderate. In the three durations of traction, the third duration of traction was found to have the highest mean which was verbally described as moderate. On the other hand, the second duration of traction got the lowest mean and was categorized as minimal.

Table 10:-Degree of Complications of Skeletal Traction in Circulatory System in terms of DVT/ Venous Status

Duration of Traction	Mean	Standard Deviation	Description
1ST Duration	2.52	0.88	Minimal
2 nd Duration	2.10	0.88	Minimal
3 rd Duration	2.90	0.99	Moderate
Grand Mean:	2.51	0.26	Moderate

The data revealed that the overall mean suggests that there was a moderate degree of complications of skeletal traction in the circulatory system in terms of DVT/venous stasis. This is due to fact that patient under traction has decreased mobility, and that it greatly affects the circulatory and consequently retards healing (Hagen, 1965).

Table 11 presents the degree of complications of skeletal traction in the circulatory system in terms of anorexia. As presented, the overall mean was verbally described that the degree of complications is minimal. The first duration of traction was noted to have the highest mean with a description of minimal. On the other hand, the third duration has the lowest mean that falls on the category minimal.

Table 11:-Degree of Complications of Skeletal Traction in Circulatory System in terms of Presence of Anorexia.

Duration of Traction	Mean	Standard Deviation	Description
1 ST Duration	2.44	0.80	Minimal
2 nd Duration	2.22	0.81	Minimal
3 rd Duration	2.16	0.79	Minimal
Grand Mean:	2.27	0.29	Minimal

The data revealed that there was a decreasing degree of complications experienced by the orthopedic patients as evidenced by the decreasing means. The data further revealed that the nursing management done to the patient is effective.

Table 12 shows the degree of complications of skeletal traction in the excretory system in terms of the constipation. As shown, the duration with the highest weighted mean is the first duration which was described as moderate. On the other hand, the duration with the lowest mean is the third duration, which was categorized as minimal. However, the overall weighted mean was verbally described as minimal.

The data revealed that the trend of the degree of complications in the excretory system in terms of the presence of constipation is decreasing as evidenced by the means of first to third duration. It is imperative to infer that as the patients tolerate the pain and was able to increase its level of mobilization, circulation would be improved, and consequently, the degree of complications was also minimized (Merck Manual, 2006).

Table 13 presents the degree of complications of skeletal traction in the excretory system in terms of urinary stasis. As presented, the overall mean was verbally described that the degree of complications is minimal. The first duration of traction was noted to have the highest mean with a description of minimal. On the other hand, the third duration has the lowest mean that falls on the category minimal.

Table 12:-Degree of Complications of Skeletal Traction in Excretory System in terms of Presence of Constipation.

Duration of Traction	Mean	Standard Deviation	Description
1 st Duration	2.76	0.71	Moderate
2 nd Duration	2.40	0.82	Minimal
3 rd Duration	2.28	0.68	Minimal
Grand Mean:	2.48	0.24	Minimal

The data revealed that the trend of the degree of complications in the excretory system in terms of the presence of constipation is decreasing as evidenced by the means of first to third duration. It is imperative to infer that as the patients tolerate the pain and was able to increase its level of mobilization, circulation would be improved, and consequently, the degree of complications was also minimized (Merck Manual, 2006).

Table 13 presents the degree of complications of skeletal traction in the excretory system in terms of urinary stasis. As presented, the overall mean was verbally described that the degree of complications is minimal. The first duration of traction was noted to have the highest mean with a description of minimal. On the other hand, the third duration has the lowest mean that falls on the category minimal.

Table 13:-Degree of Complications of Skeletal Traction in Excretory System in terms of Presence of Urinary Stasis.

Duration of Traction	Mean	Standard Deviation	Description
1 st Duration	2.44	0.93	Minimal
2 nd Duration	2.24	0.93	Minimal
3 rd Duration	2.10	0.96	Minimal
Grand Mean:	2.33	0.42	Minimal

The data further suggest that there was decreasing degree of complications experienced by the orthopedic patients as evidenced by the decreasing means. The data further revealed that the nursing management done to the patients is effective.

The table 14 shows the relationship between client assessment on the nursing management and the degree of complications among the fifty (50) respondents who were under skeletal traction management. As shown, the clients' assessment on nursing management assessing the patient was noted to have values both in the correlation and probability that are in the region of 0.06 and above, thus leading to acceptance of the hypotheses. Thus, the clients' assessment on the nursing management and the degree of complications has significant relationship.

Is therefore inferred that the clients' assessment on nursing management do not influence the degree of complications in terms of ulcers, rales, cough, dyspnea, DVT/venous stasis, constipation, anorexia and urinary stasis.

Table 14:-Test of Relationship Between the Clients Assessment on Nursing Management & Degree of Complications.

Degree of Complications	Assessing Patients				Monitoring Patient				Examining Patients				Intervening Patients				Educating Patients			
	CORR	PROB	REL	Ho	CORR	PROB	REL	Ho	CORR	PROB	REL	Ho	CORR	PROB	REL	Ho	CORR	PROB	REL	Ho
Ulcers																				
Rales	0.08	0.55	N	NR	0.08	0.60	N	NR	0.28	0.05	L	R	0.13	0.05	N	R	0.19	0.20	N	NR
Cough	0.01	0.90	N	NR	0.10	0.47	N	NR	0.19	0.18	N	NR	0.09	0.52	N	NR	0.06	0.67	N	NR
Dyspnea	0.23	0.09	L	NR	0.02	0.90	N	NR	0.26	0.07	L	NR	0.29	0.04	L	R	0.29	0.04	L	R
DVT/Venous Stasis	0.23	0.10	L	NR	0.16	0.27	N	NR	0.23	0.11	L	NR	0.30	0.04	L	R	0.28	0.05	L	R
Constipation	0.10	0.47	N	NR	0.68	0.64	N	NR	0.26	0.07	L	NR	0.20	0.17	N	NR	0.21	0.14	L	NR
Anorexia	0.05	0.73	N	NR	0.13	0.36	N	NR	0.24	0.10	L	NR	0.10	0.49	N	NR	0.17	0.24	N	NR
Urinary Stasis	0.06	0.66	N	NR	0.04	0.79	N	NR	0.27	0.06	L	NR	0.13	0.36	N	NR	0.19	0.20	N	NR

Legend: CORR – Correlation Coefficient PROB – Probability Level REL – Relationship Ho – Decision on Null Ho
 If CORR = 0.1 to 0.20 Negligible (N) If CORR = 0.1 to 0.20 Negligible (N) If
 PROB=0.00 to .05 Reject (R)0.21 to 0.40 Low (L) 0.06 & up Not reject (NR)

The relationship between the client assessment on nursing management monitoring the patients and the degree of complications was found to be similar to the nursing management assessing the patients. Values of the correlation and the computed probability of all the variables in the complications against the nursing management we all found to fall between 0.06 and above, which are indicative of not rejecting the hypothesis. It is therefore inferred that the clients' assessment on nursing management do not influence the degree of complications in terms of ulcers, rales, cough, dyspnea, DVT/venous stasis, constipation, anorexia and urinary stasis.

The relationship between the client assessment on nursing management examining the patients and the degree of complications was noted to have only one odd value. when computed, the correlation and probability values for the nursing management and the complications (rales, cough, dyspnea, DVT/venous stasis, constipation, anorexia and urinary stasis) were found to fall between 0.06 and above thus, it all implied for the acceptance of the hypothesis. However, the complication ulcer was found to have a probability computed value of 0.047 which falls between 0.00 and 0.05 which indicates the rejection of the hypothesis. It is there inferred that the complication ulcer is influence by the nursing management whatsoever.

The relationship between the clients' assessment on nursing management intervening the patients and the degree of complications was noted to have values that are with the range 0.00 and 0.05 that led to the rejection of the hypotheses. These are the variables ulcers, cough and dyspnea of the degree of complication. As such, for these complications, a significant relationship was seen when correlated to the client assessment on nursing management intervening the patients. However, for the complications – rales, DVT/venous stasis, constipation, anorexia and urinary stasis, the hypotheses were not rejected. Therefore, there were no significant relationship between the client assessment on nursing management and the degree of complications with regards to rales, DVT/venous stasis, constipation, anorexia and urinary stasis.

Lastly, to test the relationship between the client assessment on nursing management educating the patients and the degree of prevention of complications, it was observed that cough and dyspnea were the only complications that were not influenced by the nursing management. As such, the computed probability values of 0.041 and 0.053 were indicative of the rejection of the hypotheses. On the other hand, the other complications that include ulcers, rales, DVT/venous stasis, constipation, anorexia and urinary stasis were found to be influenced greatly by the nursing management. As such, the computed values of the correlation and probability suggest that there were no significant relationship between the client assessment on nursing management and the degree of complication.

Table 15 shows the intervening effect of age, gender, educational attainment and family monthly income to the relationship between the client assessment on nursing management and the degree of complications among the patients in skeletal traction.

As shown, age, gender, educational attainment and family monthly income were found to have no significant effect to the relationship between the client assessment on nursing management and degree of complications. The F values which are supported by the probability level are so small that it did not reached a level of significance.

Table 15:-Test of Intervening Effect of the Variables to the Relationship Between The Clients Assessment on Nursing Management and the Degree of Complications.

INTERVENING VARIABLES	F VALUE	PROB VALUE	INTERPRETATION	REMARKS
AGE	1.744	0.1934	Not Significant	Accept
GENDER	0.055	0.8159	Not Significant	Accept
EDUCATIONAL ATTAINMENT	0.215	0.6454	Not Significant	Accept
FAMILY MONTHLY INCOME	0.947	0.3358	Not Significant	Accept

The findings imply that there was no intervening effect of this variable in terms of the relationship of the client assessment on nursing management and the degree of complications. Therefore, indicative of the of the acceptance of the hypotheses of this study. That with good nursing management, complication in patient with skeletal traction can be prevented.

Conclusion:-

1. Among the client's assessment on Nursing Management in terms of assessing, examining, intervening, monitoring and educating only the nursing management on monitoring was rated high which implied that this nursing management was always performed by the nurse. This further implied that the nursing management monitoring has no influence in the development of the complications in patient with skeletal traction. With regards to the other nursing management such as assessing, examining, intervening and educating with a verbal description of often on its overall mean could not be executed compare with monitoring as much that the nurse-patient ratio is still a determinant to the performance of the nursing management. Its needs more time to stay with the patient. Hence, nurse could not attend to do it.
2. As to the degree of complication in the different systems such as the integumentary, respiratory, circulatory, excretory and digestive in terms of skin ulcer, cough, dyspnea, DVT/venous stasis, anorexia, constipation and urinary stasis were all categorized as minimal. It is a good indication that together with good nursing management, the dependent variable which is the degree of complications could be minimized.
3. As shown age, gender, educational attainment and family monthly income were found to have no significant effect to the relationship between the clients' assessment on nursing management which was the independent variables of this study and the degree of complications on the different systems integumentary, respiratory, circulatory, and excretory and digestive system that play as the dependent variables. It shows also that there is no influence of the independent variables on the dependent variables. The F values which are supported by the probability level are so small that it did not reach a level of significance. Hence, acceptance of the hypothesis of the study.

Recommendation:-

Based on the summary of findings and the conclusions, the following recommendations are hereby generated:-

1. The proposed intervention will be submitted to the Nursing Administration of Vicente Sotto Memorial Medical Center (VSMMC) for review and evaluation and may be for possible implementation.
2. A training-seminar on “Enhancement on Basic Nursing Skills on Nursing Management in Patient with Skeletal Traction” may be conducted among the orthopedic nurses or caregivers to give importance on the factors that were found to have significant result in the study.
3. A ward class would be conducted by the orthopedic ward staff (doctors, nurses, etc.) involving the patient’s watchers or significant others in the involvement of care.
4. Inasmuch as VSMMC is a training hospital, students must be utilized in the reinforcement activities not only a ward class but actual demonstration of some nursing independent interventions that can be done by a watcher or significant other in the absence of or when the nurse is busy with some other patients.
5. Researchers that contemplate of doing similar study should look into the other nursing management and complications that are deemed necessary and are most likely to occur to orthopedic patients who are in skeletal traction management.
6. Musculoskeletal system must be included in the future study as part of the systems that is most likely to develop complications as a consequence of skeletal traction management.
7. Patients who are in skin traction and/or may be in some management where mobility of the patient is restricted or limited are recommended to be the subject of future research.

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