Needs Analysis of Assosiateds Nurses RSUD Aceh Tamiang Year 2018

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Abstrack

The mismatch number of nurses with calculation of hospital needs is a problem that should examine at hospital, such as the researcher should determine the real nurse workload. Kind of this research is the analytic observational research which aims to analyze the nurse workload and the executive nurse needs at the ward and the specialunit of RSUD Aceh Tamiang. This research used time and motion study method approach and the calculation of WINS formula (workload Indicator of Staff Needs). The sample of this research is all of the population as many as 280 people. The result of this research showed us;the average of productive workload of executive nurses at ten wars, such as Teuku Umar Ward, Cut Mutia Ward, VVIP Ward, Muda Sedia Penyakit Dalam Ward, Muda Sedia Bedah Ward, Iskandar Muda Ward, ICU, Operation Room (OK), IGD and Haemodialisa ward in the medium category (81%). The result of personel calculation needs with WISN method showed us the totals of executive nurse are excessive at RSUD Aceh Tamiang. The score of this ratio is 1,38, it means that the ratio > 1. According to WISN, the executive nurse needs is 204 people but the personnel that is in in the field as many as 280 people at the ward and the special unit of RSUD Aceh Tamiang. This case showed us, there is the excessive of executive nurse as many as 76 people.

Keyword: Personnel Needs, The Assosiated Nurse, Time and Motion Study, WISN

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Preliminary

Health services are efforts carried out alone or jointly in an organization to maintain and improve health, prevent and cure diseases and restore the health of individuals or communities. Health services are any efforts that are carried out alone or jointly in an organization to maintain and improve health, prevent and cure diseases and restore the health of individuals, families, groups and or communities (MOH, 2009)

The Hospital is a health service institution that organizes individual health services in plenary that provides inpatient, outpatient and emergency services (RI Law No. 44 of 2009 concerning Hospitals). As one of the complex service units in various types of health services, it provides healing, health improvement, and provides all services in the health sector to realize an optimal degree of health. To realize optimal service, hospitals are required to be professional in carrying out various types of health services for patients so that patients get satisfactory services at the hospital. At the hospital one of the service providers is the nurse.

Calculating the workload of a nurse is not a very simple job. Nursing managers must carry out structured planning in planning nursing staff and understand the number of patients treated every day / month / year in the unit, condition or level of patient dependence, average day of care, frequency of treatment needed by the patient, and flat measurement the time of direct care, indirect care, and health education in order to know the workload (Haryati, 2014). Some approaches to calculating workload can be done by working sampling, time and motion study, and daily logs (Nursalam, 2014).

Aceh Tamiang District Regional General Hospital is a Type C Hospital with a capacity of 190 beds excluding PONEK services (Comprehensive Emergency Neonatal Obstetrics Services) with a total of 280 nurses as well as 176 internship nurses from the 2004 MOH guidelines which stated a comparison power, three beds of two nurses in hospital type C, it can be seen that the ratio of nurses is not in accordance with these standards.

Based on the field observations found characteristics of staffing status of nurses consisting of civil servants (PNS), employees in regional employment agreements (PDPK), Employees in other work agreements (PDPKL) and internship (voluntary) nurses. When viewed from the type of work nurses are still found nurses who do non-nursing work such as completing administration, oxygen mobilization, blood specimen collection for laboratory examinations and the presence of non nurses (midwives) in the nursing area who both provide nursing care this is feared resulting in disruption of service because the competence of midwives is not in accordance with the area of nursing and will indirectly affect patient satisfaction, the results of the initial survey also found that RSUD Aceh Tamiang had never conducted a study of the needs of the number of nurses in real terms with workload analysis. In addition to the above problems, many apprentices (volunteers) who enter the General Hospital of Aceh Tamiang Regency are feared to be a separate problem where the number of nurses is increasing and not in accordance with the rules of hospital labor.

Research Methods

This type of research is analytic observational by using the Time and Motion Study approach which aims to see the overall activities or activities of the implementing nurses in the context of the need for nurses with the Workload Indicator Staffing Needs (WISN) method in the

treatment room and special units. Location and Time of Research This research was conducted in 10 rooms consisting of: 6 treatment rooms and 4 special units of Aceh Tamiang District Hospital.

Results And Discussion

1. Nurse Workload Is Implemented in RSUD Aceh Tamiang Treatment Room.

The results of the study in the Teuku Umar Room showed that the workload of Teuku Umar Room nurses was 84%, meaning that the workloads of the nurses were categorized as moderate workload. Teuku Umar Room is a treatment room for children aged 1 month to 14 years with all types of diseases with as many as 30 beds and an average of 150 patients treated per month.

In the Cut Mutia Room, it was found that the workload of the implementing nurses in the Cut Mutia room was 97%, meaning that the workload of the Cut Mutia room nurses was categorized as heavy. This is evidenced by the Cut Mutia room is a class I treatment room that treats various diseases and there are two isolation rooms for TB and HIV. The rate of patient visits is high with an average of 133 patients per month with 28 beds. In the VVIP Room the results of the study showed that the direct workload of the implementing nurses in the VVIP room of RSUD Aceh Tamiangat 72% meant the workload of nurses implementing the VVIP room was in the light category. This is because there are excess nurses implementing after being calculated through the WISN method, the VVIP room has 10 beds with an average visit of 67 patients per month. In the Young Sedia Disease Room In the productive workload of 83% means that the nurse's workload is included in the medium category. This could be because the youth room available for internal disease is a space with reference to the third class BPJS and according to the WISN calculation the youth room is available for disease in the excess of the nurse nurses, the number of beds is 33 and an average of 220 patients per month.

The productive workload of nurses implementing Young Sedia Surgery Room was 83%. This means that the workload in the young room is available for surgery in the medium category. The young room available for surgery is a treatment room with the type of inpatient room that treats patients with surgical indications either pre- or postoperatively with 32 beds and an average of 140 patients treated. In the Iskandar Muda room at 79%, the Iskandar Muda room nurse's workload was categorized as medium workload. This is in accordance with the condition of Iskandar Muda room which is a room that treats surgical patients and internal medicine and there is a lung isolation room. With a total of 36 beds and an average of 183 patients treated per month. Of the six treatment rooms there was only one room that was categorized as heavy workload, the remaining Cut Mutia space was in the medium workload category.

2. Nurses' Workloads Implemented at the Special Unit of RSUD Aceh Tamiang

The special units in the RSUD Aceh Tamiangshowed that 2 of them, namely the Surgical and Human Room, showed a high productive workload and two (2) rooms in the medium workload category, namely ICU and IGD. To assess the workload category researchers categorized workloads in three categories: productive workload category> 85% then classified as heavy workload, if productive work time was not up to 85% then classified as moderate workload and if productive work time <75% classified as burden light work (Nursalam, 2012).

Whereas in the Hemodialisa room and the Surgery Room of Aceh Tamiang District Hospital, it was shown that the direct productive workload of the nurses in the Hemodialysis

room was 88% and the Surgical Room was 91% meaning that the workload of hemodialysis nurses and the Surgical Room was categorized as heavy workload. This is evidenced by the data obtained by the researchers through direct observation and interviews that nurses implementing hemodialysis rooms must operate hemodialysis devices and monitor patients within 5-6 hours per patient and require strict supervision, haemodialysis room in RSUD Aceh Tamiangconsists of 5 dialisys machines and are active every day.

According to the calculation of the WISN Hemodialisa room, there were still a shortage of executive nurses, as many as two people. Whereas in the Surgical Room according to the researchers, there are 350 patients / month of operation and a minimum of facilities such as operating rooms. Only three (3) rooms for all types of operations become their own constraints and those that cause workloads get heavier as well as interviews and observations found not the implementation of a predetermined operating schedule as expected to have an impact on the nurse's workload where operations that are supposed to be carried out in the morning or evening are often delayed until night and finally the night nurse's workload has increased significantly due to the increasing number of operations at night. This could be due to lack of discipline by officers in complying with the operating schedule provided.

3. The Need for Nurses in RSUD Aceh Tamiang

The WISN method was chosen because this method has many advantages, namely being able to see the overall activity carried out by the nurse implementing it, is easy to use, technically easy to implement, comprehensive and realistic (Nursalam, 2014). Every health facility including hospitalization, surgery, referral, outpatient care, various types of clinics, health education and home visits have different workload patterns (Pandey, 2013).

After each component is required in the WISN formula, it can be seen that the number: The number of Teuku Umar Room nurses needed is 17 people. At present there are 21 nurse nurses, so that in Teuku Umar's room there is a shortage of 3 nurses.

- The number of VVIP nurses needed is 17 people. Currently there are 25 nurses in charge, so there are 8 staff in the VVIP room.
- The number of young nurses available for internal medicine is 19 people. Currently there are 28 nurses in charge, so that in the young room there are 9 internal nurses available
- The number of young nurses available for surgery is 20 people. Currently there are 30 nurses in charge, so there are 10 nurses in the young room available for surgery.
- The number of Iskandar Muda nurses needed is 12 people. Currently there are 30 nurses in charge, so there are 18 staff in the Iskandar Muda room.
- The ICU nurse needed is 12 people. At present there are 19 nurses who are there, so that there are 7 staff in the ICU room.
- Nurses in the Surgical Room who are needed are 29 people. At present there are 40 nurses who are in charge, so there are 11 nurses in the operating room.
- The nurse in the required ER room is 22 people. Currently there are 31 nurses who carry out the work, so that in the emergency room there are more than 9 nurses.
- The number of implementing nurses for the Haemodialisa Room needed is 26 people. At present there are 24 nurses who carry out the program, so there are 2 nurses in the hemodialysis room

According to the WISN calculation of the overall research data the needs of the implementing nurses in the Nursing Room and the Special Unit of the RSUD Aceh Tamiangin general had exceeded the needs with a total of 280 nurses while the required only 204 people. Thus there are 76 executive nurses.

This is inversely proportional to the research conducted by Shivam, et al., (2014) they conducted research using the WISN method to quantitatively estimate the needs of nursing staff based on standard activities and workloads, and to assess the imbalance in the distribution of nursing staff in regional hospitals district of Burdwan, India. In his research the average results of WISN obtained only 35% of the available energy needs of nurses needed or there was a shortage of nurses as much as 65%. Musau, et al. (2008) research also produced very few departments in Kenya's tertiary health institutions that had optimal staffing, where the results of the study found that the majority of staff in each department experienced shortages or excesses. The interpretation of the results of calculating the needs of nurses based on the WISN index using the time and motion study approach method in the operating room of the Bali State General Hospital obtained a shortage of 30 nurses (Ernawati, Nursalam, & Djuari, 2011).

4. Ratio of Nurses in RSUD Aceh Tamiang

The final step in the calculation of WISN relates to decision making, namely the ratio. The ratio between reality and needs, this ratio is called Workload Indicator of Staffing Needs (WISN) with the following provisions: if the WISN = 1 ratio means that HR is sufficient and matches the workload based on the established SOP, but if the WISN ratio <1 means the existing HR not enough and not according to the workload, for example the existing power 6 while the required is 8 then 6/8 = 0.75 or 75% of the energy is achieved, whereas if the ratio of WISN> 1 then the human resources are excessive.

The ratio of the nursing staff in the Treatment Room and the Special Unit in RSUD Aceh Tamiangare: 280/204 = 1.37 which means the WISN ratio> 1 means that the human resources are in the excessive category.

In the User's Manual of the WISN (WHO, 2010) it is explained that if the power ratio is one (1), it means that the amount of power is in accordance with the demands of the workload (the amount of energy is sufficient). The value of the ratio is less than one, which means that the number of workers is not in accordance with the workload (the amount of energy is less) and if the value is more than one indicates the amount of excess power in relation to workload. The smaller the WISN ratio, the greater the workload. When viewed from PERMENKES No. 56 of 2014 article 55 which states that the need for nursing staff in type C hospitals is compared to 2 (two) nurses for 3 (three) beds.

Conclusions and Recommendations

Number of Nurse Workloads Implementing in Treatment Rooms and Special Units The Teuku Umar room contained 84.41% (430365.93 minutes) direct productive workload, 7.71% (39319.37 minutes) indirect productive workload, 7.02% (35793.98 minutes) non-productive workload and 0% (4393.85 minutes) other field activities

- There are 97% Cut Mutia space (182672.88 minutes) direct productive workload, 2% (11424 minutes) indirect productive workload, 1% (5712 minutes) non-productive workload and 0% other field activities.

- VVIP room has 71.82% (764919.61 minutes) direct productive workload, 23.81% (253609.6 minutes) indirect productive workload, 3.44% (36690.89 minutes) non-productive workload and 0.92% (9848.28 minutes) other field activities.
- There are 83.50% (1292486.73 minutes) of direct internal workload in the Young Living Room with direct productive workload, 13.83% (214112.29 minutes) indirect productive workload, 3.44% (32533.97 minutes) non-productive workload and 0.57% (8787.69 minutes) other field activities.
- Young Living Room for Surgery 82.31% (1204051.49 minutes) direct productive workload, 14.64% (214112.29 minutes) indirect productive workload, 2.4% (35793.98 minutes) non-productive workload and 0.60% (8787.69 minutes) other field activities.
- Iskandar Muda room 79.44% (912879.9 minutes) direct productive workload, 14.50% (166579.13 minutes) indirect productive workload, 5.63% (64736.8 minutes) non-productive workload and 0.43% (4966.96 minutes) other field activities.
- There were 75.67% in the ICU (720079.88 minutes) direct productive workloads, 17.94% (50917.98 minutes) indirect productive workloads, 5.35% (50917.98) non-productive activities and 1.03% (9848.28 minutes) activities in other fields.
- In the Surgery Room (OK) there were 92.67% (1269878 minutes) direct productive workload, 7.00% (95878.09 minutes) indirect productive workload, 0.33% (4569.6 minutes) non-productive and 0% other field activities.
- The IGD room has 63.96% (747021.34 minutes) direct productive workload, 31.68% (369926.6 minutes) indirect indirect workload, 0.33% (4569.6 minutes) non-productive workload and 0% other field activities.
- There is 88.15% Haemodialisa Room (432956.77 minutes) direct productive workload, 5.43% (26656 minutes) indirect productive workload, 6.42% (31529.84 minutes non-productive workload and 0% other field activities.
- Number of Needs Nurses Implementing in Treatment Rooms and Special Units The number of Teuku Umar room nurses needed is 17 people. At present there are 21 nurses who carry out the work so that in Teuku Umar's room there is a shortage of 3 nurses.
- The number of VVIP nurses needed is 17 people. At present there are 25 nurses in charge, so there are 8 executives in the VVIP room.
- The number of young nurses available for internal medicine is 19 people. Currently there are 28 nurses who carry out the work so that in the young room there is an internal disease there are more than 9 nurses.
- The number of young nurses available for surgery is 20 people. At present there are 30 nurses in charge, so there are 10 nurses in the young room available for surgery.
- The number of Iskandar Muda nurses needed is 12 people. At present there are 30 nurses in charge, so there are 18 staff in the Iskandar Muda room.
- The number of ICU nurses needed is 12 people. At present there are 19 nurses who carry out the work so that in the ICU there are 7 executive nurses.\
- The number of nurses in the Surgery Room needed is 29 people. At present there are 40 nurses who carry out the operation so that there are 11 nurses in the operating room.
- The number of nurses in the emergency room needed is 22 people. Currently there are 31 nurses who carry out the work so that in the emergency room there are more than 9 nurses.
- The number of nurses in the Haemodialisa Room that is needed is 26 people. Currently there are 24 nurses who carry out the program so that there are 2 nurses in the hemodialysis room.

- Ratio of Nurses in RSUD Aceh TamiangThe number of nurses who work in RSUD Aceh Tamiangis in the Excess Category, which is based on the WISN 280/204 ratio = 1.37 which means that the ratio of WISN> 1 or excess is 76 nurses. Suggestion For RSUD Aceh Tamiang It is expected that the management can make equalization and calculation of the number of needs of each room based on needs and workload analysis
- Consider increasing the need for nurses along with the Regional Government as the direct owner of the RSUD Aceh Tamiangif it is really needed or vice versa.
- It is expected to be able to build and implement the development of new rooms so that excessive energy can be empowered as needed.
- For Nursing and Nursing Committee in RSUD Aceh Tamiang It is recommended to use the time and motion study method to measure time standards and effective and efficient movements that will be used for planning and scheduling to estimate production costs, including the cost of nurses.
- Using the WISN method to measure the number of needs and re-evaluate the distribution of nurses who are already in each unit.
- Establish a clear system of distribution of training and seminars, so that all nurses can develop their potential.
- For the next researcher Continuing research related to the quality of performance and performance of nurses in treatment rooms and special units by using standard operational procedures, nursing care standards (SAK) and Minimum Service Standards (SPM) as one of the assessment instruments.
- Continuing research to analyze the cost and benefits of recruiting nurses who are intended for cost efficiency in Aceh Tamiang District Hospital.

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