Reflection on taking blood pressure

Science, Anatomy

A REFLECTIVE ACCOUNT OF A LEARNT SIMULATED SKILL BLOOD PRESSURE.

The aim of this essay is to reflect and discuss my knowledge acquired in a simulated learning skill experience which forms part of my training as a student nurse in accordance with the Nurses and Midwifery Council (NMC 2010). (Marieb and Hoehn, 2010, p 703) defined Blood Pressure (BP) as ‘ the force per unit area exerted on a vessel wall by the contained blood, and is expressed in millimetres of mercury (mm Hg)’. BP is still one of the essential and widely used assessment tools in healthcare settings.

Nurses generally record the arterial BP which is the forced exerted blood that flows through the arteries, to establish a baseline and to determine any risk factors. BP composes of two measurements, the systolic and diastolic pressure. The systolic pressure is when the ventricle contracts and the blood is at the peak normally an average adult is around 120mmHg (Marieb & Hoehn 2010). The diastolic pressure is lower within the arteries and always present when the ventricles are at rest and the aortic valve is close.

This essay will discuss the measuring and recording of BP of a colleague in a skills laboratory. During the skills practice, a colleagues BP was measured in the skills laboratory. There are two methods for recording BP direct and indirect with this session it was the indirect technique. The manual auscultatory method measured in the arm on the brachial artery (Richards, and Edwards, 2008). I introduced myself as a student nurse and then explained the procedure involved systematically to relieve any anxieties. The patient needs to understand the process in order to consent (NMC 2010).

Ensuring a relaxed and calmenvironmentis essential, emotional and temperature variation and can affect the readings. Hand washing is essential

to reduce and prevent the spread of infections especially cross-infection ((Dougherty and Lister 2011). I washed and dried my hands appropriately, after which the equipments were assessed. The equipments used were aneroid sphygmomanometer which had been calibrated and working, a range of cuffs to ensure the right size for the hand, a stethoscope, detergent wipes, a pillow for the hand, a pen and my ote book for documentation. A sphygmomanometer composes of a compression bag, an inflating bulb that is pumped to increase pressure, a manometer to read the pressure applied and is deflated by a control valve. This colleague was sitting, BP may be taken when patients are sitting or lying down not when moving or talking to ensure accurate readings (Jamieson, Whyte and McCall 2007). Primarily BP may be measured in both arms. There may be variations in results for some people especially the elderly it is recommended that the arm with the highest readings is utilized.

Patient’s arms should be free of clothing, positioned at heart level and maintained to ensure accurate reading (British Heart Society 2006). Seated in a comfortable position, palpated the radial and brachial pulse, and then applied the correct size of the sphygmomanometer on the arm. According to the (British Heart Society 2006) 40% of the width and 80% of the arm circumference may be the length of the cuff bladder. Large or small cuffs may result in inaccurate readings. Next palpated the radial pulse then wrapped the cuff round the arm, inflated till the pulse was obliterated.

Placed the bladder on the artery and higher to the elbow, allowing the cuffs inferior edge 2 to 3cm over the brachial artery. This will enhance accurate reading allowing easy palpitation of the artery. The patient should be still

and quiet through the procedure. Again the brachial artery was palpated, the stethoscope placed firmly on the bare skin on the palpable pulse of the brachial artery as the bulb was used to inflate the cuff immediately for an additional 20 to 30mmHg above the earlier reading (Bickley and Szilagyi 2009). This avoids too much distress as the cuff is inflated not more than20 to 30mmhg over the assumed systolic level.

The cuff is deflated at a rate of 2 to 3 mmHg per second, on hearing the first pulse, the Korotkoff sound that is the systolic BP which should be recorded from the gauge. The Korotkoff sound is constantly monitored as the cuff continues to be deflated slowly until the pulse sounds have disappeared. Then the fifth Korotkoff sound was recorded as the diastolic BP after another 10 to 20 mmHg the cuff may be completely deflated to avoid limb compression. After the procedure is complete the patient should be informed and left comfortable; the results must be explained and documented.

The colleagues BP recorded were 125/80mmHg which was normal. NHS Choices (2012) classifies an ideal BP ranges from 90/60mm/Hg and 140/90mmHg. Around 30% of people who live in England have high blood pressure. A BP reading higher than 140/90mmHg is called Hypertension and one lower than 90/60mmHg is called Hypotension. BP reading may vary depending on age, obesity, medications and exercise like running, jogging and jumping. White Coat Syndrome can also affect BP results (Williams, Poulter and Brown 2004). BP was performed on the brachial artery, with some patients it may be inappropriate, alternative sites may have to be considered.

BP may be measured in the thigh, underneath the cuff with the stethoscope positioned above the posterior popliteal artery for patients prone with middle bladder (Dougherty and Lister 2011). Due to the environment there was one aspect not done properly, which was ensuring privacy, in future practice procedures must be explained and performed in a quiet environment in a hospital the curtains must closed (NMC 2010). This will provide more accurate results and also alleviate anyanxietythe patients may have before or after the procedure.

Some results may need further treatments and advice, which should be discussed privately. The second aspect of the simulated learning skill which needs further development is accuracy in measuring and reading of BP results. During the simulated skills due to the noise within the room it was difficult to hear the first Korotkoff sound. Accurate reading determine prognosis for commencing, assessing and terminating patient's treatments. According to (NMC 2010) as a student nurse I need to perform this skill efficiently, consistently, with an accurate recording.

BP measurement is vital, considering consistency of all nurses and equipments to minimise errors that may contribute to discrepancies in results which can affect clinical treatment decisions. It is recommended that all equipments should be maintained and calibrated regularly in accordance with (NICE 2011) guidelines. The environment should be suitable for BP measurement; if the room temperature is cold it may result in vasoconstriction leading to a high BP and an inaccurate reading. Maintaining adequate space, the patient should be comfortable throughout the procedure to avoid anystresswhich can affect he results. The room should be

quiet, so that the Korotkoff sounds can be heard at the appropriate time; all equipment and measurement area reflecting correct body posture and the aneroid sphygmomanometer not obstructed for accessible accurate readings. Ensuring accurate BP results will assist nurses when taking the next reading to recognize how the baseline was determined and assist with the patient's treatment. Compassion is the key ofnursingis empathizing, treating people how you would like to be treated and is expressed from within the act of caring (Chambers R. and Ryder E. 009). Approaching a patient with the right posture is essential; body language should reflect empathy and warmth. By greeting the person with a smile and sitting with the right posture and at the right level will make the patient feel welcome. Throughout the procedure I maintained the right distance ensuring my colleague was comfortable and not distracted by my posture. It is important to use the right tone of voice to explain the procedure to the patient, which may help to calm anxieties. Applying this approach may make the patient feel relaxed and willing to open up.

Some patients may be worried about the results explaining it to them with the right posture and voice may make reduce their fears . maintained a reasonable eye contact Anxiety can increase BP; in order to ensure accurate results patients may be reassured and calmed . A breathing technique may help alleviate fears and worries of patients. Ensuring a relaxed and quiet environment is a vital tool for assessments. According to (McCabe and Timmins 2006) Nurses need to interact and relate to patients feelings positively so as not to cause them more pain. Establishing a relationship, to identify and share in their pain and stress.

Understanding the patient, will enable them connect and relate more and freely with nurses to efficiently deal with their illness. In conclusion this essay has taught me the importance of BP in assessing a patient. It has also enabled me to gain knowledge of how accuracy of the BP results is vital for clinical intervention. Also how privacy will help to assist the patient when delivering care. Applying Compassion and understanding may help me to explain the benefits of BP and the complications of not adhering to treatment to the patient. I need to develop my two aspects accurate reading and maintaining privacy for future practice.

I have learnt to perform BP more confidently and also in future if any abnormalities are discovered it is important to inform my mentor. This reflective essay has helped me to explore and identify my short falls. Developing the According to the (NMC Code 2010) accurate reading and recording of skills must be adhered to at all times. This essay has taught me the important of Blood Pressure in caring for a patient. References: Bickley, L. S. , and Szilagyi, P. G. (2009) Bates' Guide to Physical Examination and History taking, 10th edn. London: Lippincott Williams and Wilkins. Blood Pressure Asso Available at: http://www. bpassoc. rg. uk/Supportingyou/NICE2011/Patients80 (Accessed : 28 April 2012) Chambers, C. and Ryder E, (2009) Compassion and caring in nursing. U. K. Radcliffe Publishing Ltd. Dougherty, L. and Lister, S. The Royal Marsden Hospital Manual of Clinical Nursing Procedures 8th edn. U. K. Blackwell Publishing. Jameison, E. M. Whyte, L. A. and McCall, J. M. (2007) Clinical Nursing Practices 5th edn. Philadelphia : Elsevier Ltd. Marieb, E. M. and Hoehn, K. (2010) Human Anatomy and Physiology. 8th edn. San Francisco U.

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