

Nursing Competence

Effects of the competence of nursing students on decreasing drug administration errors: a literature review

Whether the competence of nursing students/nurses have any effect on decreasing drug administration errors has been a subject of debate for quite a period of time. A review of the existing literature in this area is not only appropriate but also timely so as to ascertain whether there is any literary evidence to support the claim that the competency of students in medication calculation can lead to decreased medication errors.

According to Masters (2005), amongst all hospital errors, medication errors have been identified to have the highest frequency of occurrence. He goes on to note that a big percentage of these errors are in fact caused by the incompetence on the part of nursing students. It is hence clear that the incompetence of nursing students or their competence thereof has some kind of a ripple effect when it comes to the delivery of healthcare. It should not be lost on this that the blame at times tends to fall squarely on educators who according to Aspden (2007) fail to prepare students well for the many tasks going forward. Naylor (2002) also notes that educators have a very big role to play when it comes to enhancing the competence of nursing students so as to avert any instances of medication calculation and other drug administration errors.

To echo the sentiments of Aspden (2007), the safety of healthcare is increasingly getting worse. While some percentage of this errors are way beyond the ability of nurses as far as their aversion is concerned, a big chunk of them still fall within the nurses jurisdiction as regards what they did or failed to do. In that regard, Masters (2005) argues that the medication calculation and other drug administration errors which have over time been blamed upon the competence of nurses include but are not limited to the administration, dispensation, transcription as well as the monitoring of medications. For instance, an administration route may be conspicuously omitted for an amoxicillin order. This is just a single yet clear example of a

case of incompetence on the part of nurses.

While it is true error-is-to-human, and that sometimes some errors lead to negligible effects on patients, some errors have the potential of bringing about disastrous effects upon the patient. These medication calculation and other drug administration errors are the ones that are commonly referred to as potential ADEs or serious medication errors. A good example of such an error which can be attributed to incompetence on the part of nurses is an amoxicillin order for a patient having a previous penicillin anaphylaxis (Naylor 2002).

To further underscore the role competency of nursing students/nurses plays as far as drug administration errors are concerned, Aspden (2007) notes that there have been instances where nurses have not observed the five medical administration rights. This rights which relate to the administration of medications include the right patient, the right administration when it comes to frequency as well as timing, the correct dose, the right administration route and lastly the correct drug. Failure by nurses to follow these simple rights actually has a domino effect as far as drug administration and medication errors are concerned.

The competency of nurses on their part plays a big role in enabling them to accomplish their duty with regard to enhancing the safety as well as safety of healthcare advanced to patients. The institute of medicine in fact paints an ugly picture as regards the number of deaths which are attributable to medication calculation and other drug administration errors. According to the institute, about 98000 deaths annually in hospitals are attributable to medical errors. The costs as a result of these errors are even more alarming. According to Masters (2005), an annual estimated figure of about \$29 billion in the same institutions underlines the urgency of the issue. Naylor (2002) notes that if drug administration error instances are to be brought down then the competence of nursing students/nurses must be upheld as well as enhanced.

Incompetence has been blamed on a number of things and as Aspden (2007) notes, it has even become standard practice for nurses in some instances to sign out narcotics whereas giving other members of staff the responsibility of the actual medication administration. This is just one

example of a practice that borders on incompetence and in fact has the very potential of bringing about errors. The only favorable possibility in such a practice is the assumption that the first nurse gives the second nurse the correct medication and hopes that this nurse will actually administer these medications to the right patient. The other possibilities are not plausible. For instance, the other possibilities include the second nurse administering the drug to the wrong patient or even administering the medication contrary to the order.

There is also the possibility of the second nurse keeping the drug in what Naylor (2002) calls diversion. In regard to this scenario and many other similar ones which play out in a wide range of health facilities, it does not only make sense but it is also highly appropriate to enhance the competence of nurses so as to decrease drug administration errors such as the one recounted above and many others.

According to Masters (2005), the need for qualified, competent as well as well trained nurses cannot be overstated. In his view, when the competency of nursing students/nurses is enhanced, reported cases of medication calculation and other drug administration errors. Masters (2005) goes ahead to note that competence dictates that nurses administer medications having a physician's signed as well as written order and in cases where one or two things is unclear, clarification should be sought with the ordering physician as soon as it is possible. Competency also dictates that nurses check and ensure that the contents of the medication order are in line with package label. However, this is not usually the case as there have been instances where medications which are unlabeled or tabled in a way that is unclear are used or replaced in the cabinet.

Competence also dictates that instructions be followed as precisely as it is possible when dispensing medications. In instances where one has doubts concerning a drug name or otherwise, timely verifications should be made. Aspden (2007) notes that due to some reason which can be only explained as sheer lack of competence, some health practitioners still go ahead to dispense medications in instances where there exists doubts as to their calculation, dosage etc.

A lot of research has also gone into the ascertainment of the effects of miscalculation of drug dosages. While in some quarters a miscalculation of drugs is not attributed to any serious drug administration error cases, Anema et al. (2009) argues that the calculation of medications is paramount to the enhancement of safety as far as the administration of medicines is concerned. However, it is important to note that when it comes to medication calculation, specific problems have been identified. These problems can be attributed to a wide range of factors which include but are not in any way limited to the students' inability to integrate their basic mathematical skills into the real work situation.

All in all, nursing students/nurses should not jeopardize the well being of their patients by amongst other things failing to use superior judgment as far as the administration and signing out of medicines is concerned. This will be a big step in the attempt to lower as well as decrease drug administration and medication errors.

Conclusion

While the role of educators when it comes to training as well as preparing nursing students can have a big impact on reducing as well as decreasing instances of drug administration errors as well as a wide range of other medication errors, it is important to note that Health Centers should also be at the forefront in ensuring that the competence of their healthcare professionals is not in question. Given that a large chunk of medication errors are a direct consequence of the incompetence on the part of nurses as seen above, a step in this direction will be seen to be a concerted effort towards ensuring that the rates as well as instances of drug administration errors are brought down or decreased.

References

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