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Guest Editorial

What nurses' work-arounds tell us about pain assessment☆

Imagine that you are given a task with rules that seem meaningless, incomplete, or excessively complex. You are then given no feedback on whether you are doing the task correctly. To simplify the task and to get it done, you are likely to make up your own rules and procedures. Somebody else might make up different rules for the same task. Nurses often face such a situation in assessment of children's pain. They have been taught that pain is "the fifth vital sign." They have been taught that observational pain scales such as the Face, Legs, Activity, Cry, Consolability Scale (FLACC, Voepel-Lewis et al., 2010) and self-report scales such as the Wong-Baker FACES Pain Rating Scale (Wong Baker FACES Foundation, 2016) are "reliable and valid." Supposedly, all they have to do is watch the child, or ask the child, and then enter a number from 0 to 10 for pain intensity. But nobody helps nurses to figure out what to do when the scales themselves, or the scores derived from them, don't make any sense in a particular clinical context. So it is understandable that nurses often find practical work-arounds. Work-arounds are defined as "nonstandard methods for accomplishing work blocked by dysfunctional processes" (Tucker, 2009). These methods are shared with colleagues, are often viewed as normal, and become part of the culture of a ward or clinic (Debono et al., 2013).

A prime illustration of this phenomenon is provided in a research report by Avian et al. (2016). This article summarizes a retrospective analysis of the prevalence of postoperative pain in hospitalized children. For children younger than 4 years ($N = 205$), pain assessment was done using an observational tool, the Children's and Infants' Postoperative Pain Scale (CHIPPS, Büttner et al., 1998). Like the more widely-known FLACC, the CHIPPS consists of five behavioral items (crying, facial expression, posture of the trunk, posture of the legs, and motor restlessness), each scored0–2, to produce a total score ranging from 0 through 10. Astonishingly, Avian reported that 97% of the CHIPPS scores on the first postoperative day were either 0 (87%) or 4 (10%). How could it happen that only 3% of children had pain intensity scored using any of the other 9 values on the 11-point scale?

A clue is found in the local protocol in that hospital, according to which pain scores of 4/10 or higher require intervention. The authors speculate that "nurses, rather than completing the Children's and Infants' Postoperative Pain Scale item-by-item, simply record 0 or 4 to discriminate between no pain and pain that requires treatment according to the local standards" (Avian et al., 2016, pp. 41–42). In other words, these nurses appear to have simplified the complex task of observing five different behavioral parameters, some of which are hard to see in swaddled infants, by reducing it to a global, binary judgment of whether they had pain requiring treatment or not. Thereby they saved time and effort (and we speculate that they might have achieved outcomes as good as they would have if they had followed the complete protocol for the CHIPPS).

Here is another illustration of the same phenomenon. The verbal numerical rating scale (VNRS; Castarlenas et al., 2016) is now well established as a practical and widely-used self-report scale of pain intensity for children and adults. It is administered by asking the patient to say a number from 0 to 10. The number 0 always means no pain, but there are no established anchors for 10/10; it is generally left to care providers to decide whether to define 10/10 as "the most hurt" or "the worst pain you can imagine" or "a whole lot of pain" or some other variation. Interestingly, both of us (CLvB and CP) have been told by nurses that if a self-reported pain score is "too high" (i.e., outside the 0–10 range, or implausibly high given the patient's demeanor at the time), then they just change the anchor! In other words, self-report is supposed to be accepted as a true report of pain, but if it is "too high," then nurses are free to change the scale to get a score in a range that they consider plausible or acceptable to record.

The incidental finding by Avian et al. (2016) mentioned above illustrates how nurses apply work-around behavior to simplify a treatment protocol. In this case, the work-around simplified the decision to treat or not treat pain. This type of behavior has also been noted when nurses are expected to follow an illogical protocol, particularly when following the protocol might impact patient safety (Nadhrah and Michell, 2015). For example, the practice of prescribing specific opioid doses based solely on pain intensity has become common practice in hospitals in the United States (Pasero et al., 2016). An example of a "dosing-to-numbers" prescription is, "2 mg of IV morphine for pain intensity ratings 1–3; 4 mg for ratings 4–6; and 6 mg for ratings >6". This practice has been blamed for an increase in opioid-related adverse events because it requires nurses to administer doses without consideration of the multiple other factors that influence opioid requirement (Pasero et al., 2016). Nurses frequently report working around the parameters of such an order by documenting a lower pain intensity rating than reported by a patient if the patient's self-reported pain intensity would require the nurse to give a dose that the nurse thinks might introduce or increase patient harm. For example, using the order described above, a nurse might perceive

☆ This is an Editorial on Avian et al. (2016).

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as dangerous a dose of 6 mg of IV morphine in an excessively sedated patient who reports a pain rating of 7. Under these circumstances, nurses often admit to changing the patient's self-reported rating to one that allows the nurse to administer a lower, and hopefully safer, dose.

In a comprehensive review of the well-documented difficulty in getting pain assessment done according to protocol, Franck and Bruce (2009) suggest that "[p]oor compliance with pain assessment guidelines may not simply be an issue of the 'research-to-practice gap', but it may indicate unspoken resistance to use of methods that are overly simplistic, burdensome to patients, often inaccurate and perhaps even disrespectful of clinical expertise and experience" (p. 19). The review provides ample context for understanding nurses' need for work-arounds to deal with expectations for pain assessment that are time-consuming but do not necessarily contribute to patient care.

Similar examples of work-arounds occur outside of the specialty of pain management as well. For example, nurses in the labor and delivery setting are responsible for assigning an Apgar score (color, heart rate, reflexes, muscle tone, and respiration) to newborn infants at 1 and 5 min after birth. With experience, nurses become proficient at determining what Apgar scores indicate the need for newborn resuscitation. These expert nurses describe occasionally assigning an Apgar score without referring to the criteria outlined in the Apgar scoring tool, particularly when assessing what appears to be a healthy newborn that does not require any resuscitative measures. Expert nurses in the post anesthesia care unit similarly describe the ability to recognize patient readiness for discharge without meticulously scoring each item in each category of the Aldrete discharge scoring system (activity, respiration, consciousness, circulation, and color). The above examples share some of the rationale cited for the development of work- arounds, which includes saving time and side stepping 'problematic' rules (Debono et al., 2013). It has been noted that nurses implement work-around behaviors when they believe particular "requirements are less important, appropriate, useful, or necessary" (Debono et al., 2013). Nurses are more likely to circumvent rules and policies that they do not understand or approve of or that they believe are unnecessary. Furthermore, some research shows that nurses view working around rules and policies as a source of proficiency and satisfaction at being able to problem solve and protect their patients (Debono et al., 2013).

Conclusion

Work-arounds often evolve because staff perceive barriers to the accomplishment of specified goals (e.g., pain assessment and treatment) (Halbesleben et al., 2010). To the extent that pain scoring is complex, divorced from common sense, does not take account of the social relationship and communication with patients, and practical treatment decision making, it doesn't make sense and it is understandable that nurses make up their own idiosyncratic rules to simplify the process. The key to better compliance with pain assessment protocols is to enlist the help of frontline nurses to identify barriers and work-arounds that have been created in an effort to accomplish the goal (Tucker, 2009). The research finding of Avian et al. (2016) underscores the important clinical implication that frontline nurses are essential to the development of renewed, practical pain assessment policies and procedures that will increase the likelihood of compliance and of benefiting patient care.

References

Avian, A., Messerer, B., Wünsch, G., Weinberg, A., Kiesling, A.S., Berghold, A., 2016. Postoperative paediatric pain prevalence: a retrospective analysis in a university teaching hospital. Int. J. Nurs. Stud. 62, 36–43.

Büttner, W., Finke, W., Hilleke, M., Reckert, S., Vsianska, L., Brambrink, A., 1998. Entwicklung eines Fremdbeobachtungsbogens zur Beurteilung des postoperativen Schmerzes bei Süuglingen. [Development of an observational scale for assessment of postoperative pain in infants.]. AINS-Anüsthesiol Intensivmed Notfallmed Schmerzther 33 (06), 353–361.

Castarlenas, E., Jensen, M.P., von Baeyer, C.L., Mirór, J., 2016. Psychometric properties of the Numerical Rating Scale to assess self-reported pain intensity in children and adolescents: a systematic review. Clin. J. Pain e-pub ahead of print, open access.

Debono, D.S., Greenfield, D., Travaglia, J.F., Long, J.C., Black, D., Johnson, J., Braithwaite, J., 2013. Nurses' workarounds in acute healthcare settings: A scoping review. BMC Health Serv. Res. 13, 175 Available at http://www.biomedcentral.com/1472-6963/13/175 (accessed 31.08.16.).

Franck, L.S., Bruce, E., 2009. Putting pain assessment into practice: why is it so painful? Pain Res. Manage. 14 (1), 13–20.

Halbesleben, J.R., Savage, G.T., Wakefield, D.S., Wakefield, B.J., 2010. Rework and workarounds in nurse medication administration process: implications for work processes and patient safety. Health Care Manage. Rev. 35 (2), 124–133.

Nadhrah, N., Michell, V., 2015. Workarounds: risk or benevolence for patient safety. In: Information Resources Management Association (Ed.), Healthcare Administration: Concepts, Methodologies, Tools, and Applications. IGI Global, Hershey, PA, pp. 285–323.

Pasero, C., Quinlan-Colwell, A., Rae, D., Broglio, K., Drew, D., 2016. American society for pain management nursing position statement: prescribing and administering opioid doses based solely on pain intensity? Pain Manage. Nurs. 17 (3), 170–180.

Tucker, A.L., 2009. Workarounds and resiliency on the front lines of health care. Agency for Healthcare Research and Quality (AHRQ). Patient Safety Network (PSNet), Available at https://psnet.ahrq.gov/perspectives/perspective/78 (accessed 5.09.16.)..

Voepel-Lewis, T., Zanotti, J., Dammeyer, J.A., Merkel, S., 2010. Reliability and validity of the face, legs, activity, cry, consolability behavioral tool in assessing acute pain in critically ill patients. Am. J. Crit. Care 19 (1), 55–61.

Web reference

Wong Baker FACES Foundation, 1983. Wong Baker FACES Scale. Available from: http://wongbakerfaces.org/.

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