

The impact of surgical safety checklists on theatre departments : a critical review of the literature

CADMAN, Victoria <<http://orcid.org/0000-0002-6102-1943>>

Available from Sheffield Hallam University Research Archive (SHURA) at:

<https://shura.shu.ac.uk/17209/>

This document is the Supplemental Material

Citation:

CADMAN, Victoria (2016). The impact of surgical safety checklists on theatre departments : a critical review of the literature. *Journal of Perioperative Practice*, 26 (4), 62-71. [Article]

Copyright and re-use policy

See <http://shura.shu.ac.uk/information.html>

Table 2 - Identified themes and illustrative examples

Theme, subtheme	Detail	Illustrative examples
Safety <ul style="list-style-type: none"> Morbidity and mortality Perceptions of safety 	<p>Effects on patient safety.</p> <p>How staff thought use of the checklist affected patient safety</p>	<p>While the effect size for morbidity and mortality was small, given the number of surgical procedures performed each year, even a small improvement in these outcomes would save lives and reduce the burden of complications. (Lyons & Popejoy 2013).</p> <p>Several staff said that, due to the SSC (Surgical Safety Checklist), they were better prepared including having the proper equipment and antibiotics available, consistent site marking, correct labelling of specimens, and informed consent for all procedures. In general this enabled the right surgery on the right side. A few noted that incidents had been averted. (Gagliardi et al 2014).</p> <p>I can clearly remember two occasions where the surgeon was just very dismissive and it was like, 'oh I'm not doing this, I don't need to do this, I'm not' you know... and literally just walked away. [Amfield, Operating Department Practitioner, U020] (Aveling et al 2013).</p> <p>...approximately 65% of all respondents agreed and only 10% disagreed that patient safety and patient care were improved by the checklist. (Papaconstantinou et al 2013a).</p> <p>I think it's a knee jerk reaction to the problem and I'm not sure there's a huge amount of evidence that, within the context of hospitals in developed countries, that it will do very much. Attending Surgeon, Medium Hospital (Russ et al 2015a).</p>
Team <ul style="list-style-type: none"> Communication 	<p>How communication between team members changed with checklist use</p>	<p>Respondents also agreed that they felt encouraged to speak up if they had safety concerns. (Avansino et al 2011).</p> <p>Both circulating nurses and anaesthesiologists also shared the opinion that communication between members improved after implementation of the checklist. (Takala et al 2011).</p>

<ul style="list-style-type: none"> • Perceptions of teamwork • Hierarchy and resistance • Accountability 	<p>How staff felt the checklist improved team work.</p> <p>Perceived hierarchy and how the checklist created further tensions.</p> <p>Confusion over whether completing the checklist made that person responsible for any mistakes.</p>	<p>Self-perceptions of teamwork and communication improved following the implementation of safety checklists. (Russ et al 2013).</p> <p>...the traditionally physician-dominated hierarchical culture of the operating room and lack of confidence amongst nurses leading the SSC review, particularly when faced with resistance from staff who were most often surgeons, leading to tension and avoidance of SSC review. (Gagliardi et al 2014).</p> <p>When the surgeons weren't on board you were told to "oh shut up and let's get on with it." During introductions we had surgeons look up and say "oh God, I'm so and so, Prince of Darkness, if you don't know me by now get out of my operating room." Operating Room Nurse, Small Hospital (Russ et al 2015a).</p> <p>According to the nursing staff completing the checklist, the surgeons and anaesthetists who were ultimately responsible for the surgical procedure did not always listen to the items when they were read out. Nurses were therefore concerned about the legal implications of signing the checklist as they might be held accountable for errors. (Fourcade et al 2012).</p>
<p>Administration</p> <ul style="list-style-type: none"> • Education/training • Workload 	<p>Identification of training needs.</p> <p>The impact on workload.</p>	<p>Additional interventional focus on relevant clinical systems may also be necessary. For example, our findings suggest that where equipment count practices are not well established, focused training, agreed procedures and ongoing support to implement these practices are needed if the use of the checklists is to be meaningful. (Aveling et al 2013).</p> <p>All participants noted that the nursing workload had increased, in large part due to the need for SSC documentation. (Gagliardi et al 2014).</p> <p>When it was introduced, no one looked at withdrawing what the checklist is replacing. So staff now fill in the checklist and everything else they used to fill in as well. Attending Anaesthesiologist, Acute Teaching Hospital. (Russ et al 2015a).</p>

<ul style="list-style-type: none"> • Checklist design 	<p>How the checklist design affected processes and staff.</p>	<p>The binary (yes/no) response system was ambiguous and confusing... (Fourcade et al 2012).</p> <p>The SSC was often modified to make it easier to use and accommodate existing local practices or processes... Therefore multidisciplinary interaction at key time points may not have occurred. (Gagliardi et al 2014).</p> <p>Some of the questions are like a red-rag to a bull, like “are you expecting the unexpected?” Operating Room Nurse, Large Hospital (Russ et al 2015a).</p>
<ul style="list-style-type: none"> • Checklist timing • Resources 	<p>The effect of when the checklist items take place.</p> <p>Conflict between inability to comply with checklist due to lack of resources and the need to treat.</p>	<p>The checklist tends to be completed during a period of high workload for the anaesthetist prior to surgery. Therefore, they are not able to focus on what is happening with the checklist. (O'Connor et al 2013).</p> <p>It seems clear from the low implementation rate of the sign out procedure across different locations and specialities that this part of the checklist has some serious incompatibilities with standard operating theatre practice and culture in the UK. (Pickering et al 2013)</p> <p>In set-ups like ours, for example if there is no pulse oximetry, [...] if you consider it a must we're going to lose many people because often we don't have this pulse oximetry. So if you say now I'm not going to anaesthetise a patient because I have no pulse oximeter definitely we will lose many patients that could have been helped if you operate on them without pulse oximeter. [Mbile, Anaesthetist, A002] (Aveling et al 2013).</p>
<p>Efficiency</p> <ul style="list-style-type: none"> • Perceived delays • Financial costs 	<p>The idea that using the checklist delayed treatment.</p> <p>The financial impact.</p>	<p>Yet more delay! Oh gosh, we're going to get less work done for the patients. Attending Surgeon, Acute Teaching Hospital (Russ et al 2015a).</p> <p>...we identified a significant reduction in direct cost per operative procedure (\$68 per operation). (Papaconstantinou et al 2013b).</p>