



Decrease the number of incident injured by cleaning sharp instrument to operating room nurse

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Background

Stabbed by a sharp object is a common occupational injury to nurses in the operating room. Strengthen the knowledge and skill of cleaning sharp instrument is able to prevent OR nurses injured by sharp instrument, this project is target to decline their risk of occupational injury, meanwhile promote their work safety, this is one of the major index to show the quality of operating room is improved.

Methods

There were in total 3 staffs of our unit, which were injured by sharp instrument while cleaning during the period of July to September 2019, we analyzed the reason and found out it was due to incomplete procedure manual, workers not thoroughly knowing the stander operating procedure of cleaning surgical instrument, unformulated inspect, lack of instrument cleaning education and training, not owning both anti-pinching equipment and cleaning-enzyme measuring tools and shortage of surgical devise.

Table 1 Decision matrix

problem	Cause Analysis	Safety	Feasibility	Importance	Effectiveness	Total	Implement
1. The operating room equipment management procedures are incomplete	Revision of standard operating procedures for instrument cleaning	15	15	15	15	60	○
2. No measuring tool for diluting the concentration of enzyme cleaner	Newly used device moisturizer	15	15	15	15	60	○
3. Lack of anti-puncture equipment	Use puncture-proof gloves	15	15	15	15	60	○
4. Lack of anti-puncture equipment	Special stainless steel drain basket for instrument cleaning	15	15	15	15	60	○
5. No verification mechanism	Develop a verification mechanism	15	15	15	15	60	○
6. Lack of education and training on standard operating specifications for equipment cleaning	Regularly hold on-the-job education and training courses for pseudo-realistic operations	15	15	15	15	60	○
7. Insufficient equipment cleaning tanks and washing machines	New washing equipment	15	9	12	12	48	
8. Lack of manpower dedicated to cleaning equipment	Apply for manpower responsible for cleaning equipment	15	9	15	15	54	
9. Insufficient equipment	Purchase additional equipment to form a general equipment package	15	15	15	15	60	○
10. Personnel are not clear about cleaning	Design creative formulas and small reminders	15	15	15	15	60	○

Results and Discussion

In order to achieve the purpose of reducing the number of injured by cleaning sharp instrument, we must strengthen their knowledge and skill of cleaning sharp instrument. This requires revising the procedure manual, purchasing safe instrument washing devise, planning medical simulation, laying down proper examine protocol and our creative 7-steps formula, to let the staffs keep the steps in mind, and clean the surgical devise more correctly. After execute the above-mentioned measures, the rate of OR nurse clean the instrument correctly has inclined from 51% up to 93%, the number of sharp instrument cleaning injured incident maintain zero.

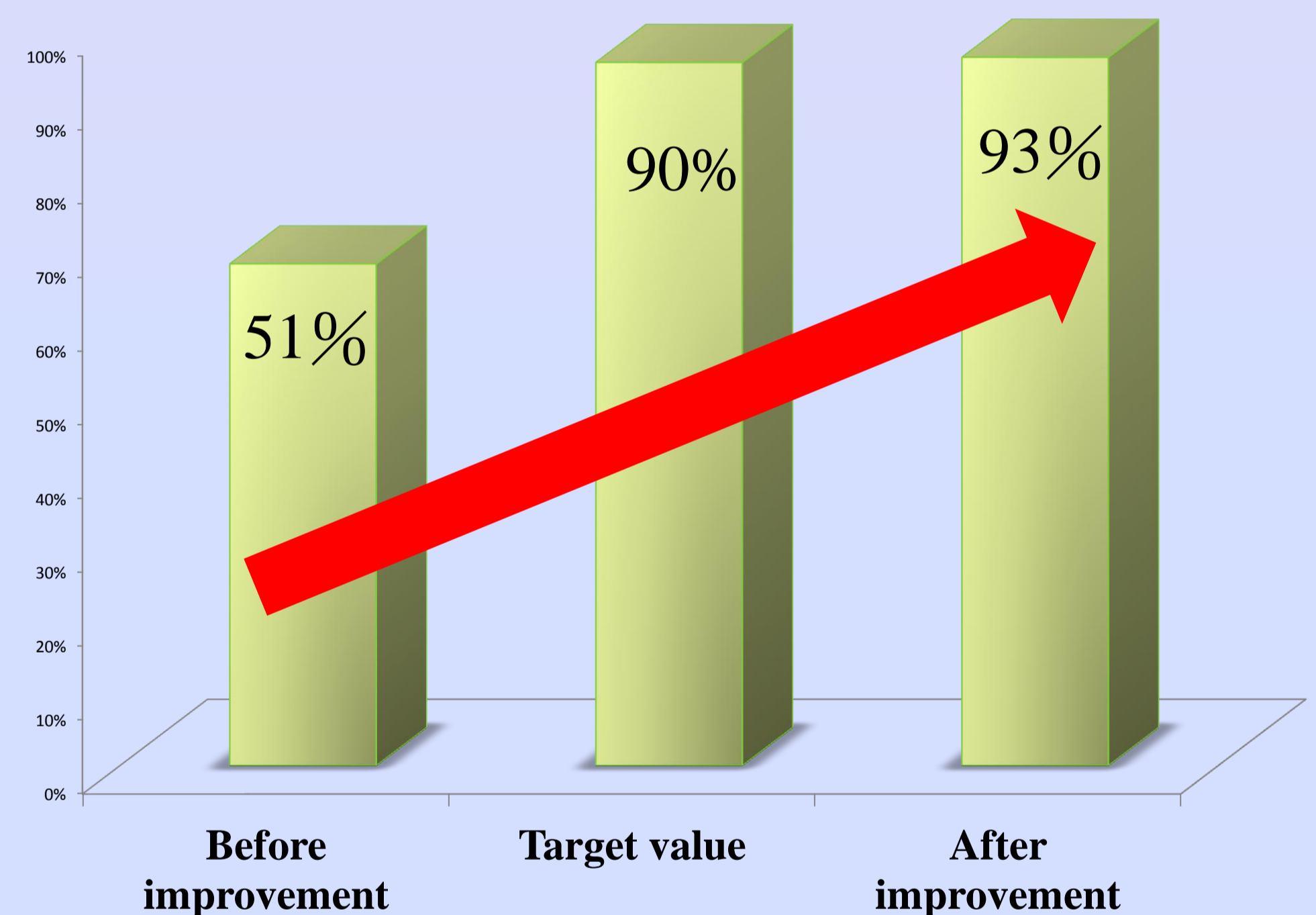


Figure 1 Behavioral observation table of the correct rate of instrument cleaning for nurses in operating room

Conclusions

The immersive situational learning of multiple teaching is used to strengthen learners' self-operational memory. The traditional teaching innovative information integration mode is used to continue correct and safe behaviors to strengthen the operating room nurses' cognition and skills in the cleaning and processing of sharp instruments. To prevent puncture injuries, reduce the risk of occupational injuries for nurses in the operating room, and create a safe workplace to implement a safe working environment in the operating room, thereby improving the quality of hand room care.