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QUANTIFYING PERISHABILITY IN SKILLS: A CRITICAL REVIEW

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PURPOSE: Every job or workplace requires a unique skill set, with new skills developed and old skills reviewed. Depending on the tasks required for different jobs some skills are conducted daily and others infrequently. Workplaces however, require employees to maintain skills at a high level. If retraining does not occur, skills can decline reducing the capacity to execute skills at a high level. The aim of this critical review was to identify, critically appraise and synthesize key findings from the current body of literature that explores the perishability of skills within different workplaces. **METHODS:** Search terms were developed, and a systemic search was done using the key data bases (Pubmed, CINAHL, SportDiscus). Inclusion and exclusion criteria were then applied to further ensure relevant articles were included in the review. Included studies were critically appraised, using the downs and black checklist, and a level of evidence was determined. The relevant data was extracted and synthesized. **RESULTS:** Fifteen studies were included for review and ranged in percentage quality scores from 50% to 83.9% with a mean of 65.5%. Substantial interrater agreement ($k=0.747$) existed between raters. A variety of workplace skills were examined including ECG interpretation, basic and advanced life support, laparoscopic surgical skills and motor skills in pianists. However, there was a high variety in the retention intervals, measures and their protocols. Results reported that experts in laparoscopic surgery, who were defined as a person that has performed >200 procedures during the past 3 years, were able to retain their skills over a long-time interval without training, however, novices' skills deteriorated over a shorter time interval without training. **CONCLUSION:** Though skill perishability is varied from skill to skill, there is no clear research to identify the exact degree of skill decay when additional skill retention factors and skill complexity are considered. It is clear from this review that refresher training, particularly for novices, should be performed regularly to combat skill perishability.