The Benefits of Implementing Grand Rounds in the Rutgers Nurse Anesthesia Specialty Tract

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Abstract

Background

Literature consistently demonstrates that when students are given the opportunity for interactive Grand Rounds (GRs) that include audience response systems (ARS), there is an ↑ in knowledge retention & clinical practice

Purpose

Examine the affects of interactive GRs on knowledge translation in student registered nurse anesthetists (SRNAs)

Method

Quantitative study of 65 SRNAs, using a pre post post exam design

Results

Intervention led to ↑ in shorter term knowledge retention in all SRNAs, whereas long term knowledge retention only ↑ in first year students

Aim

To ↑ SRNA participation & knowledge retention through the implementation of interactive GRs, thus ↑ clinical preparedness

Background

Medical education should incorporate teaching methods that build greater *gist* memory

This can be accomplished by providing opportunities to "connect-the-dots" between their developed verbatim knowledge & the clinical situation at hand

GRs can serve as a connect-the-dots model of education, as they have been shown to ↑ knowledge retention over long periods of time

Medical residents that participating in a year's worth of GR presentations retained around 40% of the "key learning goals & objectives stated by the presenters" (Winton et al., 2016)

Research also shows that modern students are visual learners who absorb information through alternative teaching approaches

The positive impact of GR implementation has been shown at other academic medical institutions

Methods

*n = 65, nurse anesthesia residents

Setting: after SRNA program meetings in September & October

Quantitative study design

- Knowledge retention evaluated using pre post posttest exams to measure the level of change with the GR initiative
- Level of audience participation measured using ARS technology & polleveywhere.com

Qualitative data regarding SRNA perception of GR assessed via corresponding survey (Likert scale-based surveys → more in-depth view of the usefulness of GR)

*actual participation rates for pre post posttest exams was 65, 48, & 58, respectively

Results

	Pre-Test	Post-Test	Post/Post-Test
First Year Mean:	4.1	6.9	5.6
Second Year Mean:	7.1	9.7	7.6
Third Year Mean:	7	9	8.1

Results (continued)

Pre Post Test Analysis	Pre-Test	Post-Test	Mean Difference	Std Deviation	P-value
First Year Mean:	4.1	6.9	2.83	2.64	0.000
Second Year Mean:	7.1	9.7	2.59	2.34	0.000
Third Year Mean:	7	9	2	2.64	0.003

Pre Post/Post Test Analysis	Pre-Test	Post-Post-Test	Mean Difference	Std Deviation	P-value
First Year Mean:	4.1	5.6	1.52	2.4	0.005
Second Year Mean:	7.095	7.619	0.5227	2.28	0.295
Third Year Mean:	7	8.115	1.12	2.88	0.1

Discussion

Pre – post test: all cohorts ↑ in mean exam scores with significant p values

- More likely immediately post intervention

Pre – post post test: only 1st year SRNAs had significant p value

- Exam offered 2 months post intervention
- 1st year students have not entered clinical setting & are didactic only
- 2nd & 3rd year students - may not have been as effective secondary to rotational & academic demands

For ARS, on average 77% of audience members opted to participate using phone or computer