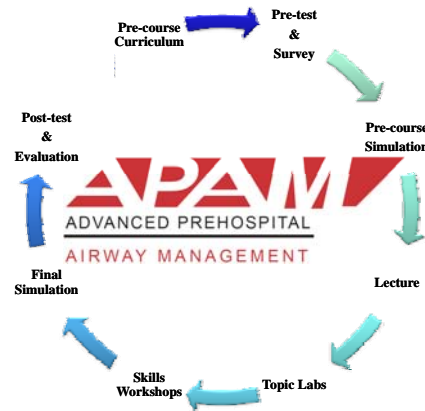


INTRODUCTION

- Adult learners have accumulated a foundation of life experiences and knowledge that may include work-related activities, social responsibilities, and previous education. They need to connect learning to their experiences and knowledge.
- Years of professional experience (YPE) could be an important contributing factor for creating effective simulation based training programs that are well received by experienced practitioners.
- The purpose of this study is to evaluate whether the paramedics' responses to a simulation-based training course evaluation is related with their YPE.

METHODS

- We analyzed the cumulated data on web-based post course evaluations (9-point Likert scale) for the Advanced Prehospital Airway Management (APAM) course conducted at an academic-based simulation center from July 2007 to December 2008



- APAM course overview
 - Web-based review before class (about 4hours)
 - A full-day paramedic airway training program
 - Facilitator to student ratio 1:3
 - Maximum 12 students per day
 - Course structure (figure)

- Grouping for analysis
 - Four groups by the YPE of the paramedics (group 1, ≤ 1 yr; group II, 2-9 yrs; group III, 10-19 yrs; group IV, ≥ 20 yrs)

- Statistical analysis:
 - SPSS version 16.0 for Window
 - Pearson correlation analysis and ANOVA and subsequent post hoc test (Tukey)
 - Significant level: p -value < 0.05

RESULTS

- 356 paramedics participated in one of the 44 courses and 334 (94%) completed the evaluation. 307 (86%) reported their YPE on the survey. The median YPE of the participants was 10 (1-34).

RESULTS

- There was no significant relationship between YPE and most of components of the course and test scores. There was a weakly positive correlation between YPE and length of skill workshop ($r=0.131$, $p=0.023$) and weakly negative correlation between YPE and rating of pre-course curriculum ($r=-0.147$, $p=0.010$).
- Comparison of trainee evaluation and test scores among four groups.

Category	Question	Group I	Group II	Group III	Group IV	P-value
General	The objectives of the course were clearly stated	8.39±1.58	8.22±1.40	8.26±1.27	8.07±1.62	0.710
	Appropriate for my level of learning	8.30±1.71	8.20±1.46	8.18±1.28	7.81±1.83	0.327
	I plan to apply what I learned here to my practice	8.22±1.73	8.38±1.34	8.34±1.41	8.10±1.62	0.684
	Overall course rating (1=very low, 9=very high)	8.52±1.02	8.40±0.86	8.31±1.17	8.31±0.84	0.636
Pre-course curriculum	Helpful	7.89±1.27 *	7.50±1.59	7.59±1.46	7.05±1.86	0.048
	Well-organized	7.91±1.41	7.83±1.39	7.77±1.43	7.40±1.70	0.242
	Easy to use	8.13±1.24 *	7.79±1.55 **	7.64±1.67	6.98±2.18	0.004
Skills Workshops	Video was helpful	8.02±1.34 *	7.71±1.61	7.75±1.41 +	7.02±2.12	0.011
	Well organized	8.20±1.10	7.83±1.41	7.82±1.41	7.67±1.61	0.289
	Lecture was informative	8.18±1.07	7.79±1.57	7.82±1.31	7.55±1.59	0.179
Simulation	Length of the workshop (1=too long, 9=too short)	5.38±1.61	4.90±1.42 **	5.32±1.79	5.79±1.68	0.011
	Scenarios were realistic	7.72±1.46	7.81±1.37	7.76±1.26	7.53±1.66	0.660
	Scenarios were challenging	7.50±1.73	7.78±1.40	7.76±1.51	7.40±1.81	0.396
	Scenarios were appropriate for my level of education	8.09±1.46	8.07±1.42	8.08±1.22	7.88±1.60	0.817
	Simulation has improved my technical	7.98±1.37	7.85±1.37	7.58±1.37	7.68±1.60	0.741
	Simulation has improved my medical knowledge	7.74±1.54	7.67±1.51	7.86±1.24	7.69±1.56	0.803
	Simulation has improved my judgment skills	7.78±1.46	7.80±1.41	7.84±1.22	7.76±1.63	0.987
Simulation to be valuable	8.22±1.36	8.19±1.33	8.25±1.22	7.95±1.75	0.608	
Debriefing	Helpful	8.24±1.27	7.96±1.41	7.86±1.24	7.92±1.51	0.467
	Allowed me to see my mistakes	8.28±1.28	8.11±1.43	8.02±1.26	7.88±1.57	0.495
	Allowed me to learn from my mistakes	8.33±1.27	8.11±1.40	8.04±1.20	7.95±1.56	0.531
	Professional, non-personally threatening manner	8.60±1.03	8.16±1.43	8.16±1.30	8.04±1.55	0.182
Test	Pre-test (total 10 points score)	6.54±1.68	6.44±1.71	6.66±1.66	6.64±1.63	0.800
	Post-test (total 10 points score)	7.57±1.42	7.54±1.40	7.77±1.32	7.58±1.40	0.629

All values are presented as mean \pm SD; * $p < 0.05$ compared with group IV; ** $p < 0.05$ compared with group IV; + $p < 0.05$ compared with group IV

CONCLUSIONS

- We were able to create a simulation-based paramedic difficult airway training program that was perceived as realistic and challenging to a cohort of trainees covering a wide range of experience and did not vary considerably based on years of experience
- Paramedics who have less experience seemed to rate the availability of web-based pre-course review information slightly higher than those with more experience
- Paramedics with more experience had a slight preference that the program should be longer