

**Educational effects on repeating
use of and evaluation by human
patient simulators for developing
lung sound auscultation skills.**

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Purpose

- A purpose of this study was to clarify effects of utilizing human patient simulators for development of auscultation skill on lung sounds.

Methods

- For the nurses who participated the three times consecutive series of workshops about physical assessment, evaluation examinations on auscultation skills using human patient simulators had been repeated six times as follows:
 - the first: initial pre-workshop
 - the second: at the initial post-workshop
 - the third: the second pre-workshop
 - the fourth: at the second post-workshop
 - the fifth: the third pre-workshop
 - the sixth: at the third post-workshop

Methods

- Total numbers of nurses who participated all six sessions were 25.

Results 1

- Wheezes
- Rhonchi
- Fine crackles
- Normal breath sound
- Bronchial breath sound
- Absent of right lung sound

the correct answer rates better by lectures /
practice / tests for auscultation skills on lung

Results 2

- Rhonchi
- Wheezes
- Fine crackles

the more times repeating evaluation
examination on auscultation the better
outcomes were

Results 3

- Identifying locations of those abnormal lung sounds was shown difficult.
- It appeared that coarse crackles had been difficult to distinguish with sounds.

Results 4

- Regarding to pleural friction rub, a repeating evaluation examination on auscultation skills did not improve the correct answer rate.

Conclusion

- Human patient simulators are effective and powerful to develop physical assessment skills.