The Influence of Feedback in the Simulated Patient Case-History Training among Audiology Students at the International Islamic University Malaysia

By: Dzulkarnain, AAA (Dzulkarnain, Ahmad Aidil Arafat)\textsuperscript{1,11}; Sani, MKA (Sani, Maryam Kamilah Ahmad)\textsuperscript{11}; Rahmat, S (Rahmat, Sarah)\textsuperscript{11}; Jusoh, M (Jusoh, Masnira)\textsuperscript{11}

JOURNAL OF AUDIOLOGY AND OTOTOLOGY
Volume: 23 Issue: 3 Pages: 121-128
DOI: 10.7874/jao.2018.00381
Published: JUL 2019
Document Type: Article

Abstract
Background and Objectives: There is scant evidence on the use of simulations in audiology (especially in Malaysia) for case-history taking, although this technique is widely used for training medical and nursing students. Feedback is one of the important components in simulations training; however, it is unknown if feedback by instructors could influence the simulated patient (SP) training outcome for case-history taking among audiology students. Aim of the present study is to determine whether the SP training with feedback in addition to the standard role-play and seminar training is an effective learning tool for audiology case-history taking. Subjects and Methods: Twenty-six second-year undergraduate audiology students participated. A cross-over study design was used. All students initially attended two hours of seminar and role-play sessions. They were then divided into three types of training, 1) SP training (Group A), 2) SP with feedback (Group B), and 3) a non-additional training group (Group C). After two training sessions, the students changed their types of training to, 1) Group A and C-SP training with feedback, and 2) Group B: non-additional training. All the groups were assessed at three points: 1) pre-test, 2) intermediate, and 3) post-test. The normalized median score differences between and within the respective groups were analysed using non-parametric tests at 35% confidence intervals. Results: Groups with additional SP training (with and without feedback) showed a significantly higher normalized gain score than no training group (p<0.05). Conclusions: The SP training (with/without feedback) is a beneficial learning tool for history taking to students in audiology major.

Keywords
Author Keywords: Medical education; Hearing; Feedback; Audiology
Keyword Plus: MEDICAL-EDUCATION; SKILLS

Author Information
Reprint Address: Dzulkarnain, AAA (reprint author)

Addresses:
1. Int Islamic Univ Malaysia, Kulliyyah Allied Hlth Sci, Dept Audiol & Speech Language Pathol, Jalan Sultan Ahmad Shah, Kuantan 25200, Pahang, Malaysia

E-mail Addresses: a.adil@gmail.com

Funding

| Funding Agency | Grant Number |
|----------------|--------------|
| Ministry of Higher Education of Malaysia through the Fundamental Research Grant scheme (FRGS) | FRGS15-236-0477 |
| International Islamic University Malaysia through the Research Initiative Grant Scheme (RIGS) | RIG S15-035-0035 |

Publisher

KOREAN AUDIOLOGICAL SOC, DEPT OTORHINO-LARYNGOLOGY-HEAD & NECK SURGERY, SEOUL ST MARYS HOSPITAL #505 BANPO-DONG, SEOUL, 06591, SOUTH KOREA
Cited References: 27

1. A method for collaboratively developing and validating a rubric
   By: Allen, S; Knight, J.
   U-SoTL Volume: 3 Pages: n2 Published: 2009
   Times Cited: 1

2. Debriefing in Simulated-Based Learning Facilitating a Reflective Discussion
   By: Arafeh, Julie M. R.; Hansen, Sara Snyder; Nichols, Amy
   JOURNAL OF PERINATAL & NEONATAL NURSING Volume: 24 Issue: 4 Pages: 302-311 Published: OCT-DEC 2010
   Times Cited: 77

3. Interprofessional Communication Skills Training for Serious Illness: Evaluation of a Small-Group, Simulated Patient Intervention
   By: Bays, Alison M.; Engelberg, Ruth A.; Back, Anthony L.; et al.
   JOURNAL OF PALLIATIVE MEDICINE Volume: 17 Issue: 2 Pages: 159-166 Published: FEB 1 2014
   Times Cited: 50

4. Standardized patients versus simulated patients in medical education: are they the same or different
   By: Beigzadeh, A; Bahmanbiji, B; Shariipoor, E; et al.
   J Emerg Pract Trauma. Volume: 2 Pages: 25-8 Published: 2016
   Times Cited: 4

5. A comparison of medical students' self-reported empathy with simulated patients' assessments of the students' empathy
   By: Berg, Katherine; Mädän, Joseph F.; Berg, Dale; et al.
   MEDICAL TEACHER Volume: 33 Issue: 5 Pages: 388-391 Published: 2011
   Times Cited: 33

6. Feedback by simulated patients in undergraduate medical education: a systematic review of the literature
   By: Bokken, Lonneke; Linssen, Tim; Scherpbier, Albert; et al.
   MEDICAL EDUCATION Volume: 43 Issue: 3 Pages: 202-210 Published: MAR 2009
   Times Cited: 60

7. Strengths and Weaknesses of Simulated and Real Patients in the Teaching of Skills to Medical Students: A Review
   By: Bokken, Lonneke; Rethans, Jan-Joost; Scherpbier, Albert J. J. A.; et al.
   SIMULATION IN HEALTHCARE Volume: 3 Issue: 3 Pages: 161-169 Published: FAL 2008
   Times Cited: 47

8. Peer role-play and standardised patients in communication training: a comparative study on the student perspective on acceptability, realism, and perceived effect
   By: Boos, Hans M.; Nickel, Martin; Huyendiek, Søren; et al.
   BMC MEDICAL EDUCATION Volume: 10 Article Number: UNSP27 Published: MAR 31 2010
   Times Cited: 53

9. The use of simulated patients in medical education: AMEE Guide No 42
   By: Cielean, Jennifer A.; Abe, Keiko; Rethans, Jan-Joost
   MEDICAL TEACHER Volume: 31 Issue: 6 Pages: 477-486 Published: 2009
   Times Cited: 117

10. Informing parents of their child's hearing loss: Breaking bad news. Guidelines for audiologists
    By: English, K.; Kooper, R.; Bratt, G.
    Audiology Today Volume: 16 Pages: 10-12 Published: 2004
    Times Cited: 9

11. Development of an instrument to evaluate audioligic counseling skills
    By: English, Kris; Naev-Veiguth, Susan; Rall, Eileen; et al.
    JOURNAL OF THE AMERICAN ACADEMY OF AUDIOLOGY Volume: 18 Issue: 8 Special Issue: 637 Pages: 675-687 Published: SEP 2007
    Times Cited: 9
12. Assessment of resident professionalism using high-fidelity simulation of ethical dilemmas
   By: Gisondi, MA; Smith-Coggins, R; Harter, PM; et al.
   ACADEMIC EMERGENCY MEDICINE Volume: 11 Issue: 9 Pages: 931-937 Published: SEP 2004

13. Audiology education and practice from an international perspective
   By: Goulies, H; Patuzzi, R. B.
   INTERNATIONAL JOURNAL OF AUDIOLOGY Volume: 47 Issue: 10 Pages: 647-664 Published: 2008

14. Using video-facilitated feedback to improve student performance following high-fidelity simulation
   By: Grant, J. S.; Moss, J.; Epps, C.; et al.
   Clinical Simulation in Nursing Volume: 6 Pages: e177-e184 Published: 2010
   [Show additional data]

15. Communication Patterns in Audiologic Rehabilitation History-Taking: Audiologists, Patients, and Their Companions
   By: Grenness, Carllin; Hickson, Louise; Laplante-Levesque, Ariane; et al.
   EAR AND HEARING Volume: 36 Issue: 2 Pages: 191-204 Published: MAR-APR 2015

16. Title: [not available]
   By: Herman, M; Kalimann, C; Johnston, C.
   Drama: contrasting monologues unit and rubric individual performance and rubric cited 2018 Available from
   URL: https://web.archive.org/web/20151010161344/http://www.collierschools.com/english/lq/docs/Drama%20Guide.pdf

17. An investigation of the standardised patient interview rating scale (SPIRS) for the assessment of speech pathology students in a simulation clinic
   By: Hill, A. E.; Davidson, B. J.; Theodoros, D. G.
   Int J Pract-Based Learn Health Soc Care Volume: 3 Pages: 58-76 Published: 2015

18. Simulated patients versus seminars to train case history and feedback skills in audiology students: A randomized controlled trial
   By: Hughes, Jane; Wilson, Wayne J; MacBean, Naomi; et al.
   INTERNATIONAL JOURNAL OF AUDIOLOGY Volume: 55 Issue: 12 Pages: 758-764 Published: 2016

19. A tool for assessing case history and feedback skills in audiology students working with simulated patients
   By: Hughes, Jane; Wilson, Wayne J; MacBean, Naomi; et al.
   INTERNATIONAL JOURNAL OF AUDIOLOGY Volume: 55 Issue: 12 Pages: 765-774 Published: 2016

20. Simulation in health care education
   By: Issenberg, S. Barry; Scalese, Ross J.
   PERSPECTIVES IN BIOLOGY AND MEDICINE Volume: 51 Issue: 1 Pages: 31-46 Published: WIN 2008

21. Communication skills of nurses during interactions with simulated cancer patients
   By: Kruijver, IPM; Kerkrstra, A; Bensing, J; et al.
   JOURNAL OF ADVANCED NURSING Volume: 34 Issue: 6 Pages: 772-779 Published: JUN 2001

22. Teaching motivational interviewing: using role play is as effective as using simulated patients
   By: Lane, Claire; Hood, Kerena; Rollnick, Stephen
   MEDICAL EDUCATION Volume: 42 Issue: 6 Pages: 637-644 Published: JUN 2008

23. The relationship between mathematics preparation and conceptual learning gains in physics: A possible "hidden variable" in diagnostic pretest scores
   By: Metzler, DE
   AMERICAN JOURNAL OF PHYSICS Volume: 70 Issue: 12 Pages: 1259-1264 Published: DEC 2002

24. Simulated Patients in Audiology Education: Student Reports
   By: Naeeve-Valighth, Susan; Christensen, Sara A; Woods, Suzanne
   JOURNAL OF THE AMERICAN ACADEMY OF AUDIOLOGY Volume: 24 Issue: 8 Pages: 760-766 Published: SEP 2013

25. The Importance of Debriefing in Simulation-Based Learning Comparison Between Debriefing and No Debriefing
   By: Ryoo, Eun Na; Ha, Eun-Ho
   CIN-COMPUTERS INFORMATICS NURSING Volume: 33 Issue: 12 Pages: 539-545 Published: DEC 2015
26. **Screen-based anesthesia simulation with debriefing improves performance in a mannequin-based anesthesia simulator**
   By: Schwid, HA; Rooke, GA; Michalowski, P; et al.
   TEACHING AND LEARNING IN MEDICINE Volume: 13 Issue: 2 Pages: 92-96 Published: SPR 2001
   Times Cited: 61

27. **Student audiologists’ impressions of a simulation training program**
   By: Wilson, W.J; Hill, A.; Hughes, J.; et al.
   The Australian and New Zealand Journal of Audiology Volume: 32 Pages: 19-30 Published: 2010
   Times Cited: 7

[Show additional data]

Showing 27 of 27  View All in Cited References page