

doi: 10.3969/j.issn.1672-4933.2026.05.020

标准化病人教学法在听力技师考核中的应用

Application of Standardized Patient Teaching Method
to the Assessment of Audiologists

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【摘要】目的 探讨标准化病人(standardized patient, SP)教学法在听力技师规范化培训与临床技能考核中的应用价值与实施效果。**方法** 选取10名临床在职听力技师为研究对象,采用经培训的SP模拟先天性中耳畸形、听神经病、听神经瘤、大前庭水管综合征、伪聋5类典型听力障碍病例,构建包含操作前准备、纯音测听、言语测听、结果判读、临床思维与沟通能力的标准化评分体系,开展临床技能考核并进行效果评价。**结果** 考核对象均顺利完成全部考核项目,总通过率80%,其中80分以上优秀者5人(50%),70~80分良好者3人(30%),60分以下不合格者2人(20%),均为从业1年且未接受系统规范培训人员。**结论** SP教学法应用于听力技师规范化培训考核科学可行,能真实地评估听力师临床操作、沟通应变与病案分析能力,弥补传统考核与临床脱节的不足。

【关键词】 标准化病人;听力学;技能考核;听力技师;规范化培训

【中图分类号】 R76

【文献标识码】 A

【文章编号】 1672-4933(2026)05-0552-03

【Abstract】 Objective To investigate the application value of the standardized patient (SP) teaching method in the standardized training and clinical skill evaluation of audiology technicians. **Methods** Ten clinical audiology technicians were enrolled in this study. Trained SPs were used to simulate five typical types of hearing disorders: congenital middle ear malformation, auditory neuropathy, acoustic neuroma, enlarged vestibular aqueduct syndrome, and pseudohypacusis. A standardized scoring system was developed, encompassing pre-operative preparation, pure-tone audiometry, speech audiometry, result interpretation, clinical reasoning, and communication skills. **Results** All the participants completed the assessment. With 60 points as the passing standard, the overall pass rate reached 80%. Five participants (50%) achieved excellent scores (≥ 80 points), three (30%) were rated as good (70-80 points), and two (20%) failed the assessment (< 60 points). The both two participants had only one year of work experience and had not received systematic standardized training. **Conclusion** The application of the SP teaching method to the assessment of standardized training for audiology technicians is feasible and effective. It more accurately evaluates clinical operation skills, communication and adaptability, and case analysis abilities, thereby compensating for the shortcomings of traditional assessment methods, which are often disconnected from actual clinical practice.

【Key words】 Standardized patient; Audiology; Skill assessment; Audiology technician; Standardized training

近20年,我国听力学事业取得长足发展,临床对高素质、规范化听力技师的需求显著增加^[1]。随着听力行业的发展与专业技术的升级,听力技师需具备扎实理论、规范操作、临床思维及医患沟通等综合能力^[2]。技能考核是衡量教学质量与岗位胜任能力的核心指标^[3],传统听力技师技能考核多以程序化操作为主,重理论、轻实践,重结果、轻过程,与真实临床场景脱节^[4,5]。典型病例稀缺、患者配合度不足、隐私保护等问题制约了技能考核的标准化开

展。四川大学华西医院自2006年开办听力技师规范化培训项目以来,至今已培训166名学员。作为对操作性要求极高的职业,听力技师不仅要求具备扎实的专业理论知识,能够合理有效地运用各类测试方法,还需要具备娴熟的临床听力检测相关设备操作技能技巧,以及发散性临床思维能力,能清晰明确地判断当前测试结果数据是否真实可靠,能否有效反映受试者的听觉情况^[6]。听力技师的实操性要求较高,传统技能考核难以全面评价其综合应用能

基金项目:四川大学2025年度医学教材建设研究项目“AI赋能模式下以学习者为中心的‘教-学-评’个性化数字教材开发研究(SCUYJ0121)

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力与临床应变能力^[7,8]。标准化病人(standardized patient, SP)指经系统培训,可稳定、重复、标准化模拟特定病情的人员^[9,10],已广泛用于医学教育、考核与研究^[11,12]。自1991年开始,四川大学华西临床医学院在美国中华医学基金会(china medical board, CMB)的支持下开展SP教学,是国内较早引入、研究和开展SP教学的单位之一。常用于病史采集、体格检查与沟通能力培训,目前在听力技师考核中的应用较少^[13,14]。四川大学华西医院耳鼻咽喉头颈外科听力与言语语言康复中心(简称听语中心)将SP引入听力技师考核,现将应用体会报道如下。

1 对象与方法

1.1 研究对象

选取听语中心10名在职听力技师作为研究对象,从业年限1~10年。其中5人为四川大学华西医院听力技师培训并取得结业证书人员,5人毕业于四川大学华西临床医学院听力与言语康复专业并取得相应毕业证、学位证,但未进行听力技师规范化培训人员。

1.2 研究方法

1.2.1 SP培训 听力障碍病因与检测复杂,需多项检查综合判断听力损失的性质和程度^[15],具备良好的表达能力、基础听力学知识及表演和模拟能力才能配合考核^[16]。本研究选取2名6年以上临床听力学检测与报告审核经验的听力技师担任SP,编写统一脚本,明确主诉、言语表现、听力损失特点等;在隔声测听室内部布置与听力计同步的显示屏,SP能实时看到测试者的操作界面,可根据考核对象情况操作听力计设备,模拟患者病情做出相应应答与反应^[17]。

1.2.2 病例设计 本研究共设计5种经典且具有特殊性、代表性和鉴别难度的听力疾病病例:先天性中耳畸形、听神经病、听神经瘤、大前庭水管综合征、伪聋^[18~22]。其在临床听力检测客观检查中的表现既有相同点又存在差异性,同时在主观检查纯音测听中表现出明显差异特征的听力损失程度及性质,因此适合作为病例考核。前期SP需根据实际的临床表现详细编写制作上述5种病例的听力图,包括单耳或双耳是否存在听力损失、是否存在气骨导差、具体听力损失的性质、是否存在Naunton难题,以及可能存在的误报反应等,并将上述信息熟记于心。在考生操作听力计时,实时通过与听力计连接的同步显示屏观测其操作情况,并在合理正确的听阈点做出适当反应,引导考生通过听力计测量绘制出符合当前病例情况的听力图。所有病例统一提供声导抗、耳声发射等客观检查结果,主观测试(如纯音测听、言语测听、Stenger测试等)由考生自主选择完成,重点考核操作规范性、掩蔽

技巧、结果判读与临床思维。

1.2.3 考核流程与评分 考核前随机打乱听力计参数,要求考生先校准设备再进行测试;测试中规范采集病史、合理选用耳机与掩蔽策略、灵活处理测试异常;最终报告听力损失程度、性质并提出建议。评分表满分100分,包括操作前准备、纯音测听、言语测听、结果分析、临床思维与沟通5类。考核由4名高年资听力专科医师与听力主管技师作为评委全程监督,根据评估细则进行打分;随后参与考核人员提交完整的病案分析后,先由SP提供相关听力学检测时的实际感受,再由评委根据考生对病案的判断、分析结果进行打分。SP反馈作为参考,保证评分标准化与公平性。

2 结果

考核对象均顺利完成全部技能考核项目。以60分为合格线,总通过率80%。最高分95分,最低分44分。优秀(≥ 80 分)5人(50%),良好(70~79分)3人(30%),不合格(< 60 分)2人(20%)。优秀者中3人从业年限 > 5 年,2人 < 5 年;不合格者均为从业1年且未接受过听力技师规范化培训人员。

3 讨论

3.1 SP考核模式的优势与设计要点

听力技能考核需根据听力学特点与病例差异设计,SP可稳定提供标准化典型病例,解决真实病例不足的问题^[23]。SP考核贴近临床场景,能全面评估被考核人员的操作、沟通、应变与临床思维能力^[24,25],符合岗位胜任力导向^[26]。由于客观听力检查相对易操作,因此,病案设计均给出客观检查结果,考核重点在主观检查。考察被考核人员能否进行正确的纯音测听,包括察觉患者配合状况是否良好、能否正确应对误报反应、能否熟练操作听力计并合理运用掩蔽方法完成掩蔽测试;能否根据病史、查体和已有检查结果筛选主观检查项目,如做伪聋测试、言语识别阈、言语识别率测试等。

3.2 评分标准

采用统一评分细则,包括具体打分内容、给分点和扣分点,减少评委打分偏差,保证考核公平、严谨、可重复,适合推广应用^[27]。

3.3 推广价值

SP考核流程规范、结果可信,与临床实际高度契合,能较好展现考核对象真实的临床技能水平,可用于听力技师规范化培训考核,也可为康复、医技等相关专业技能考核提供参考^[28]。

3.4 不足与展望

SP无法模拟耳科查体结果与客观测试表现。未来可结合虚拟现实、仿真模拟技术构建全流程虚拟听力技能考核场景^[29,30],模拟更完整、真实的考核病例,进一步提升考核的标准性与规范性。

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收稿日期 2024-09-10
修回日期 2024-11-10
录用日期 2025-01-03
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