



Research Paper

Design and Psychometrics of a Tool for Assessing Clinical Skills of Using "Stuttering Severity Instrument-Fourth Edition



Zahra Kahani¹, Jamileh Abolghasemi², Younes Amiri Shavaki^{1*}, Mohammad Sadegh Jenabi¹, Shahnam Sedigh Maroufi³

1. Department of Speech Therapy, School of Rehabilitation, Iran University of Medical Sciences, Tehran, Iran.

2. Department of Biostatistics, School of Public Health, Iran University of Medical Sciences, Tehran, Iran.

3. Department of Anesthesia Technology, Faculty of Allied Medical Sciences, Iran University of Medical Sciences, Tehran, Iran.



*This work has been published under CC BY-NC-SA 4.0 license.

Article info:

Received: 11 Sep 2021

Accepted: 22 Dec 2021

Available Online: 30 Dec 2021

Funding

The paper was extracted from the MSc. thesis of the first author, Department of Speech Therapy, School of Rehabilitation, Iran University of Medical Sciences.

Conflict of interest

The authors declared no conflict of interest.

ABSTRACT

Background and Objectives: The Severity of Stuttering Instrument-fourth edition (SSI-4) form can be used to assess the severity of stuttering. In this study, in order to increase students' competence and objectively assess their clinical skills, the validity and reliability of the DOPS test in assessing the clinical skills of speech therapy students in using the SSI-4 form were assessed.

Methods: This study was a non-interventional descriptive study conducted in the School of Rehabilitation Sciences. Nineteen students were selected by the census method. An evaluation checklist related to the DOPS method was prepared. After obtaining the consent and training of students and examiners on the implementation of the DOPS assessment method, the student's work was observed by the examiners and rated, and then the student's strengths and weaknesses were given feedback.

Results: The results showed that the questions are related to the measured subject and have high face validity. The content validity index was more than 0.9, and the content validity ratio was more than 0.6. The results confirmed the test's reliability and indicated the optimal internal structure of the test and its structural validity.

Conclusion: According to this study, the use of the DOPS test to objectively assess the clinical skills of speech therapy students in the assessment of stuttering is appropriate and according to the results, DOPS has appropriate validity and reliability and this test can be used clinically.

Keywords: Stuttering, Clinical skills, Psychometrics, Validity, Reliability



Use your device to scan and read the article online

Cite this article as Kahani Z, Abolghasemi J, Amiri Shavaki Y, Jenabi MS, Sedigh Maroufi S. Design and Psychometrics of a Tool for Assessing Clinical Skills of Using "Stuttering Severity Instrument: Fourth Edition. *Function and Disability Journal*. 2020; 4:E45. <http://dx.doi.org/10.32598/fdj.4.45>

<http://dx.doi.org/10.32598/fdj.4.45>

* Corresponding Author:

Younes Amiri Shavaki, PhD.

Address: Department of Speech Therapy, School of Rehabilitation, Iran University of Medical Sciences, Tehran, Iran.

Tel: +98 (93) 57864796

E-mail: amiriyoona@yahoo.com

↑ *What is “already known” in this topic:*

The results showed that the DOPS test used in this research:

- *Has questions which are related to the measured subject.*
- *Have high face validity.*
- *Has confirmed content and structural validity.*
- *Has confirmed reliability.*

→ *What this article adds:*

The Severity of Stuttering Instrument-fourth edition (SSI-4) form can be used to assess the severity of stuttering. In this study, a DOPS test was prepared to assess speech therapy students' clinical skills in using I4. The validity and reliability of the DOPS test were assessed. The DOPS test can help students increase their clinical skills because it determines their readiness and time for the test. If they fail in the test, examiners give feedback to them about their strengths and weaknesses, and they can have other opportunities to repeat the test in the future. The results showed that the DOPS test has high face validity. The content and structural validities, and reliability were confirmed. These results indicate that the DOPS test is an appropriate tool that can be used clinically to assess students' clinical skills.

Introduction

Evaluation of clinical skills of Speech-Language Pathology (SLP) students is an important duty for related departments, and it is the case for their students of health advocates because of the community needs for their services [1]. Upgrade of the quality of clinical skills can lead to improvement of health services [2]. Clinical exams are very important duties for related departments in universities with the aim of increasing the quality of clinical education. Results of good exams can determine weaknesses and strengths of clinical education and lead to appropriate reformation of education and increase students' motivation. Giving feedback to students after exams can help them to learn better [3-5]. Evaluating students' clinical skills during working with real patients can help them to reach desired skills. Mastery of these skills is necessary for the promotion of community health [6].

Traditional methods for evaluation of students' clinical skills are more subjective or according to the general impression of university professors [7-9]. Different studies have shown that continuous evaluations can have undeniable effects on the development of clinical education; therefore, more precise methods have been emphasized [10]. In response to more community demand about responsibilities of medical treatment staff, it seems necessary

to select more real evaluation methods for clinical skills of students working in educational hospital centers [11].

Different methods proposed and used for evaluation of students' clinical skills are portfolios, Objective Structured Clinical Examination (OSCE), Mini-Clinical Evaluation Exercise (Mini-CEX), and Direct Observation of Procedural Skills (DOPS) [12].

Direct Observation of Procedural Skills (DOPS) is a test, which is used for the assessment of procedural skills and increases students' awareness of their educational needs. DOPS requires direct observation of the performance of any student during real work on a predetermined procedure or clinical skill in a real environment, simultaneously evaluated by an academy staff using a checklist [13]. During the DOPS test, the examiner's attention concentrates on the important points about the related skill. By repetition of the DOPS exam, the progress of students can be tracked by comparison of the results. This exam can facilitate better learning of clinical skills, because of the feedback in the exam, instead of general comments, and because of the objective behaviors of students in a real clinical environment [14, 15].

Speech therapy students who study in this field must successfully pass different clinical exams during their educational period. These students need to have good clinical skills for the assessment and treatment of differ-

ent clients with communication disorders [16-18]. Better evaluation methods can help them to learn better.

There are different speech, language, and swallowing disorders, which speech therapists work with and try to eliminate or alleviate their problems. One of these disorders is stuttering. Stuttering is non-fluent speech with different characteristics: aberrations in the fluency of speech, blocks, repetitions, and prolongations, with some other symptoms, such as eye blinking, weak eye contact, and abnormal movements in hands, head, or other parts of the body [18, 19].

Stuttering begins usually in 2-6 years old children, and 4-5 percent of school-aged children may be stutterers [20]. One percent of adults may be stutterers [21]. Environmental, motor, mental, cognitive, and linguistic factors can have a role at the beginning of stuttering [18]. Assessment and treatment of stuttering are very complicated, and clinicians must be skillful in a thorough assessment for designing an appropriate treatment plan. With this description, students must show their clinical skills by participating in exact and appropriate evaluations for the determination of their strengths and weaknesses. When their weaknesses are determined, they can try to participate in special programs for the promotion of their clinical skills.

Stuttering Severity Instrument-Fourth Edition (SSI-4) is a reliable and valid norm-referenced stuttering assessment that can be used for both clinical and research purposes. It measures stuttering severity in both children and adults in the four areas of speech behavior: frequency, duration, physical concomitants, and naturalness of the individual's speech [22].

With respect to the fact that different subjective clinical exams are used for clinical exams of speech therapy students, in this study we decided to design and assess the psychometrics of direct observation of procedural skills (DOPS) exam for evaluating clinical skills of students in the assessment of the severity of stuttering using the Persian version of SSI-4.

Materials and Methods

The data of this descriptive-analytic non-interventional study was gathered in the second semester of 2020-2021, in the School of Rehabilitation Sciences of the Iran University of Medical Sciences. The sample was 19 students of speech therapy who were passing the units related to clinical skills. The census method was used for the selec-

tion of samples, after explaining some related details and taking their consent.

A blueprint of procedural skills for assessing stuttering was provided and presented to ten academy staff. They were requested to rate the items according to the clinical importance of any item. According to the resulting rankings after the suggestions of the academy staff of the speech therapy department of Iran University of Medical Sciences, this skill was selected: severity of stuttering using SSI-4.

The SSI-4 checklist for measurement of severity of stuttering was prepared according to the DOPS format. Twelve items were designed for this checklist. The details of the items were determined via studying different educational literature, such as books related to stuttering, and then via confirmation of academy staff. The checklist was prepared with special details for documentation of results, i.e. scoring of each item was according to students' performance rating from 0 to 10 (unacceptable, lower than expected, limited, expected, and higher).

Ten academy staff examined the face and content validity of the designed test. The experts determined their opinions about the impact score of any question for calculation of the face validity. For the determination of content validity in this study, the Lawshe method was used. Content validity was evaluated by the determination of content validity ratio (CVR) and content validity index (CVI). The simplicity, transparency, and relevance of the questions were examined for CVI, and the necessity and usefulness were examined for CVR.

In the next step, two examiners who were students' clinical supervisors with a Master of Science (MS) degree were selected to perform the test on students. These evaluators were trained by a written guide about the DOPS exam, for uniformity of examiners' behavior during judgments, scoring, and using of the criteria in each part of the checklist. For training of the students, they were informed in individual sessions about the evaluators, the procedure, the purposes of the research, and its process. Students filled out the consent form. Each student was informed about the time for the DOPS exam, whenever he/she felt enough competent.

The examiners were observing the student's work directly. They recorded their judgments in the structured checklist and at the end of the session, they presented appropriate feedback to any student about his/her weaknesses and strengths. The required time for this observation and filling of the DOPS questionnaire, and pre-

sentation of the feedback was nearly 15 and 5 minutes, respectively.

Finally, after filling in the checklists by the evaluators observing the students and providing feedback to them, the reliability of the test was checked. For evaluation of the reliability of the test, two reliability methods were used: reliability between the evaluators and internal consistency. Internal consistency was calculated using Cronbach's alpha.

Results

As mentioned, the opinions of a group of experts were used to examine the face validity. Participants were first asked to rate the importance of each item in the 5-point Likert scale from 1 (not important at all) to 5 (absolutely important). Then, their impact scores were calculated. To accept the face validity of each item, its impact score should not be less than 1.5 and only questions in terms of face validity are acceptable if their score is higher than 1.5.

According to Table 1, it can be seen that the results of the impact scores of all questions were more than 1.5. Also, the impact scores of all designed questions were

above 4. Therefore, all questions had appropriate formal validity and were included in the questionnaire.

According to the Lawshe table for ten experts, the CVR should be 0.62 or more. Therefore, we followed this command to obtain the CVR. In this test, to obtain the CVI, the number of people who reported the items as relevant or completely related was divided by the total number of experts and the value was 0.7 or more (Table 2).

As can be seen in Table 2, for most questions, the CVR value was reported above 0.62. All the questions of this test had a CVI of more than 0.7, which was desirable in terms of content validity.

In order to evaluate the reliability of the evaluator, two evaluators examined 19 undergraduate students in a test designed for the assessment of stuttering severity (Table 3).

The results of Table 3 show the ICC values and the results indicated that the two assessors had a good agreement in scoring learners (ICCs<0.8).

Cronbach's alpha coefficient was also calculated to evaluate the reliability of the internal consistency method (Table 4).

Table 1. Impact score index related to the assessment of stuttering intensity using SS14 form in speech therapy students

Row	Items	Impact score
1	The student's performance indicates that he/she is familiar with different parts of the form.	4.3
2	The student's performance indicates that he/she is familiar with the purpose of using this form	4.5
3	Did the student do the right thing in using the appropriate sections for the literate or illiterate persons?	4.8
4	Was he/she able to do the right thing in calculating the total score of dysfluency in literate or illiterate people?	4.5
5	The student is aware of the details (formula and number of syllables) in calculating frequency.	4.4
6	The student followed the required points in calculating the percentage of stuttered syllables.	4.6
7	The student did the calculations of duration correctly.	4.7
8	In the accompanying physical signs section, get an overall score from the items on the form.	4.5
9	The student's performance during the assessment showed that he / she is familiar with the self-report form and the purpose of using it.	4.3
10	The student was able to calculate the coliform score correctly.	4.6
11	The student was able to determine the severity of stuttering based on the overall score obtained and comparing it with the ranges specified in the relevant table.	4.5
12	The student was able to practically calculate the severity of stuttering in a speech sample of a person with stuttering.	4.6

Table 2. Content Validity Index (CVI) and Content Validity Ratio (CVR) of the Direct Observation of Procedural Skills (DOPS) test related to the evaluation severity of stuttering using SSI4 in Speech Therapy students

Row	Items	CVI	Accepted or Rejected	CVR	Accepted or Rejected
1	The student's performance indicates that he/she is familiar with different parts of the form.	0.9	accepted	0.6	accepted
2	The student's performance indicates that he/she is familiar with the purpose of using this form.	0.9	accepted	0.8	accepted
3	Did the student do the right thing in using the appropriate sections for the literate or illiterate persons?	1	accepted	1	accepted
4	Was he/she able to do the right thing in calculating the total score of dysfluency in literate or illiterate people?	1	accepted	1	accepted
5	The student is aware of the details (formula and number of syllables) in calculating frequency.	1	accepted	1	accepted
6	The student followed the required points in calculating the percentage of stuttered syllables.	1	accepted	1	accepted
7	The student did the calculations of duration correctly.	1	accepted	1	accepted
8	In the accompanying physical signs section, get an overall score from eht items on the form.	1	accepted	1	accepted
9	The student's performance during the assessment showed that he / she is familiar with the self-report form and the purpose of using it.	0.9	accepted	0.8	accepted
10	The student was able to calculate the coliform score correctly.	1	accepted	1	accepted
11	The student was able to determine the severity of stuttering based on the overall score obtained and comparing it with the ranges specified in the relevant table.	1	accepted	1	accepted
12	gnirettuts fo ytireves eht etaluclac yllacticarp ot elba saw tneduts eHT .gnirettuts htiw nosrep a fo elpmas hceeps a ni	1	accepted	1	accepted

Cronbach's alpha value for the stuttering intensity test using SSI-4 was 0.971, which confirmed the internal consistency of DOPS for the stuttering intensity test using the SSI-4 and the total DOPS score.

Discussion

In the present study, we used the Persian version of SSI-4 in order to prepare and validate the DOPS exam for evaluating the clinical skills of students in the assess-

ment of the severity of stuttering. As mentioned, one of the evaluation methods is DOPS. In this research, we designed a test according to the structure of the DOPS test that examined the clinical performance of the student in assessing stuttering and then examined the validity and reliability of the test.

In this test, for face validity, the views of speech therapists were used and these individuals validated clinical and practical skills assessment through DOPS on the pa-

Table 3. Results of the internal reliability of the Direct Observation of Procedural Skills (DOPS) questionnaire

Skill	Intra-category Correlation Coefficient (ICC)	Confidence Interval (CI) 95%		P
		Bottom bound	Upper bound	
Severity of stuttering using SSI4	0.892	0.721	0.959	<0.001

Table 4. Cronbach's alpha coefficients obtained for the evaluation of the severity of stuttering using SSI4 test to assess the reliability

Skill	Number of items	Cronbach's Alpha Coefficients
the severity of stuttering using SSI4	10	0.971

tients. These findings are consistent with most studies in this field.

In a study conducted in 2012 by Sahib al-Zamani et al. at Zahedan University School of Nursing and Midwifery on the validity and reliability of the DOPS test, eight procedures were used to perform this test and its high validity was mentioned. They stated that students' familiarity with this method during the academic year and its inclusion in the curriculum of colleges, according to the students' level of experience, increase the validity of the test and compared to previous methods, such as the logbook, which shows only the quantity of the procedure, or the OSCE, which is performed on the artificial model, the face validity of DOPS is higher [23]. This finding is consistent with the studies conducted by Kuhpayehzadeh et al. in 2014 at the Faculty of Nursing and Midwifery of Kashan University of Medical Sciences [24]. In this study, after examining the results of internal consistency of the desired skill, if any of the items are removed, there will be no noticeable change in the alpha value of the entire skill so that all items to measure the relevant skill have the appropriate internal consistency [25], which is consistent with the study by Alborzi et al. on audiometry students in 2015 in the School of Rehabilitation Sciences of the Iran University of Medical Sciences [26].

In this study, we used two experts in the field of speech therapy for the reliability of the evaluators, and according to the results related to the internal correlation coefficient ($ICC < 0.8$), the two used assessors had a good agreement in grading the students and these results indicate the appropriateness of this test. Also, according to Naeem et al., one of the best ways for a test to be reliable is using two different assessors to observe a student's performance on the same skill [13].

Cronbach's alpha coefficient was also calculated to evaluate the reliability of the internal consistency method. Cronbach's alpha value for the stuttering intensity test using SSI-4 was 0.971, which confirms the internal consistency of DOPS for the stuttering intensity test using the SSI-4 and the total DOPS score. In the study by Alborzi et al., Cronbach's alpha coefficient was used for assessing the reliability of the test, which was measured as 0.788 [26].

Conclusion

The findings of this study showed the suitable validity and reliability of the DOPS test for real and objective assessment of clinical skills in the field of speech therapy. Also, students and professors agreed on the applicabil-

ity of this method and acknowledged that this method has positive educational effects due to giving constructive feedback and conscious intervention by professors as well as educating students. Therefore, these positive points indicate that using this method, the person's strengths, and weaknesses can be identified and he/she will upgrade his/her strengths and cover weaknesses to a great extent, which can increase the clinical skills of the person, leading to the improvement of the level of health and safety. This improvement is one of the goals of medical education. It is therefore suggested that faculty members of speech therapy focus more on this method of assessment and use the DOPS test to assess the clinical skills of speech therapy students. The following suggestions may be helpful:

- Using the DOPS test to assess the clinical skills of speech therapy students in the field of stuttering along with other methods.
- Building DOPS tools for other areas of speech therapy.

Ethical Considerations

Compliance with ethical guidelines

This study was approved by the Ethics Committee of Iran University of Medical Sciences (Code: IR.IUMS.REC.1398.889).

Funding

The paper was extracted from the MSc. thesis of the first author at the Department of Speech Therapy, School of Rehabilitation Sciences, Iran University of Medical

Authors' contributions

Conceptualization and supervision: Younes Amiri Shavaki, Shahnam Sedigh Maroufi, Jamileh Abolghasemi, Mohammad-Sadegh Jenabi; Methodology: Jamileh Abolghasemi; Investigation, writing - review & editing: All authors; Writing - original draft: Zahra Kahani; Funding acquisition: Zahra Kahani, Younes Amiri Shavaki.

Conflict of interest

The authors declared no conflicts of interests.

Acknowledgments

We sincerely thank the cooperation of the Iran University of Medical Sciences, School of Rehabilitation Sciences.

References

- [1] Lincoln MA, Adamson BJ, Cant RV. The importance of managerial competencies for new graduates in speech pathology. *Advances in Speech Language Pathology*. 2001; 3(1):25-36. [DOI:10.3109/14417040109003706]
- [2] Kendall D. The development of a graduate program in rehabilitation sciences in Ghana: A case report about a global health academic partnership [Msc. thesis]. Seattle: University of Washington; 2020. <https://digital.lib.washington.edu/researchworks/handle/1773/45738?show=full>
- [3] Bari V. Direct observation of procedural skills in radiology. *American Journal of Roentgenology*. 2010; 195(1):W14-8. [DOI:10.2214/AJR.09.4068] [PMID]
- [4] Franko DL, Cousineau TM, Trant M, Green TC, Rancourt D, Thompson D, et al. Motivation, self-efficacy, physical activity and nutrition in college students: Randomized controlled trial of an internet-based education program. *Preventive Medicine*. 2008; 47(4):369-77. [DOI:10.1016/j.ypmed.2008.06.013] [PMID] [PMCID]
- [5] Yousefzadeh S, Golmakani N. [The midwifery students' perspective about clinical evaluation based on log book (Persian)]. *Journal of Research Development in Nursing Midwifery*. 2012; 9(1):103-11. <http://nmj.goums.ac.ir/article-1-218-en.html>
- [6] Shahgheibi S, Pooadi A, BahramRezaei M, Farhadifar F, Khatibi R. Evaluation of the effects of direct observation of procedural skills (dops) on clinical externship students' learning level in obstetrics ward of Kurdistan University of Medical Sciences. *Journal of Medical Education*. 2009; 13(1-2):29-33. <https://brief.land/jme/articles/105385.html>
- [7] Wilkinson TJ, Frampton CM. Comprehensive undergraduate medical assessments improve prediction of clinical performance. *Medical Education*. 2004; 38(10):1111-6 [DOI:10.1111/j.1365-2929.2004.01962.x] [PMID]
- [8] Shumway JM, Harden RM. Association for Medical Education in Europe. AMEE Guide No. 25: The assessment of learning outcomes for the competent and reflective physician. *Medical Teacher*. 2003; 25(6):569-84. [DOI:10.1080/0142159032000151907] [PMID]
- [9] Sanatkhani M, Molla Z, Akbari M. [Evaluation of the students' perception about clinical education and examination in Mashhad School of Dentistry (Iran) in 2009 (Persian)]. *Journal of Mashhad Dental School*. 2012; 36(3):211-22. [DOI:10.22038/JMDS.2012.481]
- [10] Delaram M, Tootoonchi M. [Comparing self- and teacher-assessment in obstetric clerkship course for midwifery students of Shahrekord University of Medical Sciences (Persian)]. *Iranian Journal of Medical Education*. 2009; 9(3):231-8. <https://ijme.mui.ac.ir/article-1-1055-en.html>
- [11] Tahernezhad K, Javidan F. [Advanced assessment of medical students clinical performance: challenges methods and approaches (Persian)]. *Strides in Development of Medical Education*. 2008; 5(1):58-70. http://sdme.kmu.ac.ir/article_90139.html
- [12] Kariman N, Heydari T. [The effect of Portfolio's evaluation on learning and satisfaction of midwifery students]. *Journal of Arak University of Medical Science*. 2010; 12(4):81-8. <http://jams.araku.ac.ir/article-1-434-en.html>
- [13] Naeem N. Validity, reliability, feasibility, acceptability and educational impact of direct observation of procedural skills (DOPS). *Journal of the College of Physicians and Surgeons--Pakistan*. 2013; 23(1):77-82. [PMID]
- [14] Bindal N, Goodyear H, Bindal T, Wall D. DOPS assessment: A study to evaluate the experience and opinions of trainees and assessors. *Medical Teacher*. 2013; 35(6):e1230-4. [DOI:10.3109/0142159X.2012.746447] [PMID]
- [15] Weller JM, Jolly B, Misur MP, Merry AF, Jones A, Crossley JGM, et al. Mini-clinical evaluation exercise in anaesthesia training. *British Journal of Anaesthesia*. 2009; 102(5):633-41. [DOI:10.1093/bja/aep055] [PMID]
- [16] Bourbonnais FF, Longford S, Giannantonio L. Development of a clinical evaluation tool for baccalaureate nursing students. *Nurse Education in Practice*. 2008; 8(1):62-71. [DOI:10.1016/j.nepr.2007.06.005] [PMID]
- [17] Bhugra D, Malik A. *Workplace-based assessment in psychiatry*. London: Royal College of Psychiatrists; 2007. https://www.google.com/books/edition/_/qs2PcHLANCIC?hl=en&sa=X&ved=2ahU
- [18] Guitar B. *Stuttering: An intergrated approach to its nature and treatment*. Baltimore, MD: Lippincott Williams & Wilkins; 2006. https://www.google.com/books/edition/_/X0d80oJKEjsC?hl=en&
- [19] Heydari-Nasrabadi M, Kamali M, Arrani-Kashani Z. [Others' presence on the life experiences of people stuttering (Persian)]. *Archives of Rehabilitation*. 2015; 15(4):78-88. <http://rehabilitationj.uswr.ac.ir/article-1-1262-en.html>
- [20] Fekar Gharamaleki F, Shahbodaghi MR, Jahan A, Jalayi S. [Investigation of acoustic characteristics of speech motor control in children who stutter and children who do not stutter (Persian)]. *Archives of Rehabilitation*. 2016; 17(3):232-43. [DOI:10.21859/jrehab-1703232]
- [21] Rahimi SS, Farazi M, Darouie A, Bakhshi E, Abdi S, Valinejad V, et al. [Comparison the quality of life among adults with and without stuttering: An emphasis on the severity of stuttering (Persian)]. *Archives of Rehabilitation*. 2016; 17(4):300-7. [DOI:10.21859/jrehab-1704300]
- [22] Everard RA, Howell P. We have a voice: Exploring participants' experiences of stuttering modification therapy. *American Journal of Speech-Language Pathology*. 2018; 27(3S):1273-86. [DOI:10.1044/2018_AJSLP-ODC11-17-0198] [PMID]
- [23] Sahebalzamani M, Farahani H, Jahantigh M. [Validity and reliability of direct observation of procedural skills in evaluating the clinical skills of nursing students of Zahedan nursing and midwifery school (Persian)]. *Zahedan Journal of Research in Medical Science*. 2012; 14(2):e93588. <https://brief.land/zjrms/articles/93588.html>
- [24] Kuhpayehzade J, Hemmati A, Baradaran H, Mirhosseini FS, Akbari H, Sarvieh M. [Validity and reliability of direct observation of procedural skills in evaluating clinical skills of midwifery students of Kashan Nursing and Midwifery School (Persian)]. *Journal of Sabzevar University of Medical Sciences*. 2014; 21(1):145-54. http://jsums.medsab.ac.ir/article_413.html?lang=en
- [25] Wilkinson JR, Crossley JG, Wragg A, Mills P, Cowan G, Wade W. Implementing workplace-based assessment across the medical specialties in the United Kingdom. *Medical Education*. 2008; 42(4):364-73. [DOI:10.1111/j.1365-2923.2008.03010.x] [PMID]
- [26] Alborzi R, Koohpayehzadeh DJ, Roozbahani M. [Validity and reliability of the Persian version of direct observation of procedural skills tool in audiology (Persian)]. *Scientific Journal of Rehabilitation Medicine*. 2021; 10(2):346-57. [DOI:10.22037/JRM.2020.113471.2372]

مقاله پژوهشی

طراحی و روان‌سنجی ابزاری برای سنجش مهارت‌های بالینی با استفاده از ابزار "سنجش شدت لکنت-ویرایش چهارم"

زهرا کاهانی^۱، جمیله ابوالقاسمی^۲، یونس امیری شواکی^{۳*}، محمدصادق جنابی^۱، شهنام صدیق معروفی^۲

۱. گروه گفتار درمانی، دانشکده علوم توانبخشی، دانشگاه علوم پزشکی ایران، تهران، ایران.
۲. گروه آمار زیستی، دانشکده بهداشت، دانشگاه علوم پزشکی ایران، تهران، ایران.
۳. گروه بیهوشی، دانشکده علوم پزشکی وابسته، دانشگاه علوم پزشکی ایران، تهران، ایران.

چکیده

تاریخ دریافت: ۲۰ شهریور ۱۴۰۰

تاریخ پذیرش: ۰۱ دی ۱۴۰۰

تاریخ انتشار: ۰۹ دی ۱۴۰۰

مقدمه: زمینه و هدف: برای ارزیابی شدت لکنت می توان از ابزار سنجش شدت لکنت-ویرایش چهارم استفاده کرد. در این مطالعه به منظور افزایش توانایی دانش‌آموزان و ارزیابی عینی مهارت‌های بالینی آنها، آزمون روایی و پایایی مشاهده مستقیم مهارت‌های عملی جهت ارزیابی مهارت‌های بالینی در گفتاردرمانی با استفاده از فرم سنجش شدت لکنت-ویرایش چهارم مورد بررسی قرار گرفت.

مواد و روش‌ها: این پژوهش یک مطالعه توصیفی غیر مداخله‌ای بود که در دانشکده علوم توانبخشی انجام شد. ۱۹ دانشجو به روش سرشماری انتخاب شدند. چک لیست ارزیابی مربوط به روش مشاهده مستقیم مهارت‌های عملی تهیه شد. پس از کسب رضایت و آموزش دانش‌آموزان و ممتحنین در خصوص اجرای روش ارزیابی مشاهده مستقیم مهارت‌های عملی، کار دانش‌آموز توسط ممتحنین مشاهده و رتبه‌بندی شد و سپس نقاط قوت و ضعف دانش‌آموز بازخورد داده شد.

یافته‌ها: نتایج نشان داد که سوالات در ارتباط با موضوع مورد سنجش بوده و از روایی صوری بالایی برخوردارند. شاخص اعتبار محتوا بیش از ۰.۹ و نسبت اعتبار محتوا بیش از ۰.۶ بود. نتایج، پایایی آزمون را تأیید کرد و نشان‌دهنده ساختار درونی بهینه آزمون و روایی ساختاری آن بود.

نتیجه‌گیری: با توجه به این مطالعه، استفاده از آزمون مشاهده مستقیم مهارت‌های عملی برای ارزیابی عینی مهارت‌های بالینی دانشجویان گفتاردرمانی در ارزیابی لکنت مناسب می‌باشد و با توجه به نتایج، مشاهده مستقیم مهارت‌های عملی از روایی و پایایی مناسبی برخوردار است و می‌توان از این آزمون به صورت بالینی استفاده کرد.

کلیدواژه‌ها:

لکنت، مهارت‌های بالینی، روان‌سنجی، روایی، پایایی

Use your device to scan and read the article online



Cite this article as Kahani Z, Abolghasemi J, Amiri Shavaki Y, Jenabi MS, Sedigh Maroufi S. Design and Psychometrics of a Tool for Assessing Clinical Skills of Using "Stuttering Severity Instrument: Fourth Edition. Function and Disability Journal. 2020; 4:E45. <http://dx.doi.org/10.32598/fdj.4.45>

<http://dx.doi.org/10.32598/fdj.4.45>

* نویسنده مسئول:

دکتر یونس امیری شواکی

نشانی: تهران، دانشگاه علوم پزشکی ایران، دانشکده علوم توانبخشی، گروه گفتار درمانی.

تلفن: +۹۸ (۹۳) ۵۷۸۶۴۷۹۶

رایانامه: amiriyoona@yahoo.com

This Page Intentionally Left Blank