

## Oriented by Communication Skill Cultivation—Research on Application of Standardized Family Members to Pediatrics Practical Teaching

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### Abstract

**Objective:** To solve the unique communication difficulty in pediatrics, enhance medical students' skills and introduce SFM for the teaching and assessment of medical students' communication skills. **Methods:** 120 students from two classes were selected as research object; applied SFM to pediatrics skill teaching and assessment of SFM group while the conventional teaching method of teaching along with ward round of typical patients to traditional groups to compare students' questionnaire as well as performance in two groups. **Results:** The SFM group students' satisfaction in motivating learning interest, simulating/clinical communication environment, enhancing communication skill, clinical diagnostic ability and their test scores were higher than that of traditional group ( $P$  were 0.001, 0.000, 0.012, 0.026, 0.001); the achievement scores of SFM group were obviously superior than that of traditional group ( $P=0.000$ ). **Conclusions:** SFM can motivate students' learning interest and comprehensively enhance students' pediatrics communication skill, which deserves clinical teaching application.

*Keywords* Communication; Standardized Family Members; Pediatrics; Teaching

The main reason of most medical disputes not caused by medical negligence is insufficient or lack of doctor-patient communication. At present, faced with the increasingly intensified doctor-patient relationship, the cultivation of medical students' doctor-patient communication skill is extremely urgent. Nowadays, many medical colleges have carried out the course of Doctor-patient Communication so as to cultivate students' communication skill from the perspectives of psychology and humanistic care. With respect to communication

skill, “standardized patients” (SP) has been extensively applied to various medical colleges with playing obvious effect in inquiry, physical examination, teaching and assessment of specialized knowledge as well as systematic skills. [1-3] “Standardized family members” (SFM) is the extension of SP. In 1995, Medical School of University of Mass designed “standardized family” (SF) to cultivate medical students’ communication skill as a new teaching model; meanwhile, the members in SF were called SFM[4]. The emergence of SFM and simulation of clinical doctor-patient communication scenes, such as severe condition notice, preoperative talk, inform of post-operative (therapeutic process) complication and telephone follow-up, provided feasible and practical approach for cultivation of medical students’ communication skill. Aimed at the prominent characteristics in pediatrics, including communication difficulty and high technique, our department introduced SFM to the communication skill teaching and assessment of intern medical students.

## **1. Data and Method**

Specific Research Object: 120 students in class 3 and grade 2011 of five-year clinical medical education composed SFM group and adopted SFM to pediatrics communication skill teaching; 120 students in class 3 and grade 2010 of five-year clinical medical education composed traditional group and adopted teaching along with ward round of typical patients as teaching method.

Recruitment and Selection of SFM: SFM shall be equipped with the following conditions:

①The family members of in-patient children or once hospitalized in our department, looked after children all the way and are willing to cooperate with us. These family members possess personal experience, are familiar with their roles and can express their demands clearly, which are easier to subsequent training.

②The punctual and reliable housewives with certain performance ability, who devote themselves to family, raise children all the way independently, can better express the typical psychologies such as anxiety, bigotry, urgent for healing and doubt of treatment effect, and possess flexible time for teaching at any time.

③SFM in different cultural levels, communication expressions, method, techniques and comprehensive ability can truly reflect the clinical communication status of pediatrics family members.

④Better physical strength, memory and attentiveness. SFM may perform repeatedly within certain period, but the behaviors each time are similar. Meanwhile, they shall not distract during communication and can recall students’ strengths or weaknesses.

Writing of Script and Training:

SFM script is the reference of teaching, guideline of assessment, specific embodiment of testing center and important reference of score. The writing of script can take specific clinical history or case as foundation, and teaching point or examination emphasis as guideline. Script may contain explicit scene, figure

and simple illness condition background to highlight plot and build up realistic environment when necessary. Script shall try to embody the SFM simulated identify, performance language, tone and actions, key point of doctor-patient communication and communication skill; meanwhile, small space shall be save to SFM for exerting appropriately.

Training teachers interpret for SFM so that they can get familiar with script, keep case background and important examination result in mind, and express their emotional demands such as anxiety, impatience and dissatisfaction of curative effect through language, expression and body language. Meanwhile, according to the actual situation of subjects, they render appropriate accusing questions and unreasonable requirements so that students encounter the different family members and reactions during communications and handle flexibly, which avoid SFM mechanical ask and question or becoming pure audiences.

To set SFM in specific clinical scene, inquiry and history collection, critically illness notice of newborn and common baby, illness condition notice, disputes communication, informed consent of special examination, propaganda of leaving hospital, and telephone follow-up. Firstly, teachers demonstrate while students practice in groups, which solve the problems of clinical resources shortage on the one hand; on the other hand, the situation that mostly similar to clinical scene can cultivate students' communication skill, exercise repeatedly, motivate students' learning interest and enhance their communication skill efficiently. Besides, teachers can give targeted guidance according to the problems in students' communication and then enter into clinical practice.

By virtue of designed clinical scene, SFM assesses from the following aspects: (1) self introduction, salutation and politeness sympathy; (2) transitivity communication, listening and understanding, concern psychological status of patient children's family members, and pacify negative emotion; (3) explanation degree of illness condition and analyze disease causes patiently; (4) explain illness diagnosis, treatment and expenses patiently, and confess risk appropriately; (5) listen, pacify, encourage and provide possible support; (6) do not use the elusive specialized vocabulary or blame family members and pay attention to self emotional control.

First Stage SFM is applied to pediatrics communication skill teaching. Survey content: whether SFM can adapt, motivate learning interest, simulate clinical communication environment and contributes to enhancement of communication skill, etc.

Second Stage SFM is applied to pediatrics communication skill assessment. Whether the newly designed assessment content can evaluate one's communication skill, motivate and help study and satisfaction of assessment as well as performance.

After designing questionnaire, employ 5 experts to verify questionnaire validity, including content validity, construct validity and measurement index; modify according to experts' suggestions. Reliability analysis: questionnaire adopts "retest method" to detect to achieve research requirement.

To compare the scores and course satisfaction between students in experimental class and traditional teaching class to analyze questionnaire results.

Pediatrics skill performance contains two parts with each occupying 50 points. The first part is skill operation, including basic skill operation, communication with SFM before and after operation, signing of operation informed consent and humanistic concern in operation. The second part is SFM communication skill consists of inquiry, illness condition notice, difficulty communication and telephone follow-up.

Measurement data adopts  $(\bar{x} \pm s)$  to express, enumeration data applies rate to express, hypothesis testing uses t test,  $\chi^2$  test and test level  $\alpha=0.05$ . Statistical data is processed by SPSS13.0 software.

## 2. Result

The student questionnaire results of two teaching modes indicated that, The SFM group students' satisfaction in motivating learning interest, simulating/clinical communication environment, enhancing communication skill, clinical diagnostic ability and their test scores were higher than that of traditional group; P values separately were 0.001, 0.000, 0.012, 0.026 and 0.001; the result is shown in Table 1. The comparison of test scores in two teaching modes presented that, achievement score of SFM group was  $89.214 \pm 4.752$  and traditional group was  $79.642 \pm 7.651$ ; so the score of SFM group was obviously superior to traditional group,  $P=0.000$ ; the result is shown in Table 2.

Table 1.Comparison of Questionnaires on Teaching Methods between Two Groups.n(%)

item	SFM group	Traditional group	$\chi^2$	P
Stimulate interest in learning	110 (91.70)	90 (75.00)	12.000	0.001
Communication environment satisfaction	105 (87.50)	72 (60.00)	23.438	0.000
Improve communication skills	98(81.70)	81 (67.50)	6.352	0.012
Improve clinical diagnosis capacity	97(80.80)	82 (68.30)	4.946	0.026
On their skills satisfaction	101 (84.20)	78 (65.00)	11.627	0.001

Table 2.Comparison of the Achievements of Two Teaching Methods.  $(\bar{x} \pm S)$

Grouping	Pediatric skills score	t	P
SFM group	$89.214 \pm 4.752$	12.069	0.000
Traditional group	$79.642 \pm 7.651$		

### **3. Discussion**

At present, SFM is merely applied to a few Chinese universities. The Second Military Medical University introduced SFM into the assessment of standardized training of resident doctors in Neurosurgery and obtained satisfying achievements [5]. The 2nd Affiliated Hospital of Harbin Medical University uses SFM to simulate the family members of children surgical emergency and patient children with refractory diseases; it is applied to assessment of postgraduate students' doctor-patient communication skill and can accurately evaluate students' communication skill [6]. This research discovered that, it is feasible to apply SFM to the reaching and assessment of pediatrics communication skill with the advantages as follows: (1) Motivate learning interest with turning passive into active learning; (2) provide better simulated communication environment so that students can exercise repeatedly freely; (3) enhance communication skill and clinical diagnosis ability; the SFM practice can be converted to clinical application; (4) the high satisfaction of test scores can improve students' self confidence and promote learning. In the opinion column of questionnaire, most students reflected that in traditional method, they dare not to communicate and worry about triggering patients' distrust or disputes due to misspoke or improper explanation; many students thought that, their knowledge reserve were insufficient, so that they were not confident when facing patients' inquiry, which impeded students' communication and skill learning.

The introduction of SFM into class overcomes the difficulty of lacking object in pediatrics communication. Except for providing the interaction of medical history and presenting positive symptom, there are some other psychological activities and outward manifestation, emotional gap between patients' high expectation and cruel reality, explanation of illness phenomenon and challenging questions. In addition, after communication SFM told students their feeling and gave feedback of merits and shortcomings needing to be improves, which can enhance students' communication skill, non-linguistic skill and professional quality.

However, the application of SFM also contains limitations. For instance: SFM positive symptom is obvious; sometimes the over cooperation to achieve smooth communication, but students cannot deal with the realistic difficult. There is gap from real patients because it is unable to copy patients' emotion, expression or action. The training and input of SFM are large; due to the influence of multiple factors on subsequent persistent utilization and retraining, there is large uncontrollability. All the above problems need to be further explored in future teaching.

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