

Learning Agreements for Teaching Communication Skills to Postgraduate Students in Pediatrics

Priyanka Gupta, Jagdish Chandra

Department of Pediatrics, ESIC Medical College and Hospital, Faridabad, Haryana, India

Correspondence to: Dr. Priyanka Gupta, Department of Pediatrics, ESIC Medical College and Hospital,
Faridabad, Haryana - 121001, India.

Email : drpriyankaguptakapil@gmail.com

Received: March 17, 2024; Initial review: May 09, 2024; Accepted: June 01, 2024

PII: S097475591600659

Note: This early-online version of the article is an unedited manuscript and under editorial revision. It has been posted to the website for making it available to readers, ahead of its publication in print. This version will undergo copy-editing, typesetting, and proofreading, before final publication; and the text may undergo minor changes in the final version.

ABSTRACT

This study evaluated learning agreements (LA) as a teaching-learning tool when administered to eleven postgraduate pediatric students, with each learner moving at an individual pace. After LA, the median (IQR) Gap-Kalamazoo Communication Skills Assessment Score (GKCSAC) of students increased from 14 (11, 14) to 27 (27, 33). The scores on all the nine distinct components of the GKCSAC exhibited a statistically significant increase ($P < 0.01$). Additionally, all students perceived themselves as more competent and confident in their communication skills post-LA.

Keywords: Communication skills, Goals contract, Learning contract, Postgraduate medical education, Self-directed learning

INTRODUCTION

Learning agreement (LA) also known as learning contract or goals contract, is a formal written statement that lays down the expectations from the learner attending a specific course. It specifies the knowledge, skills, behaviors and attitudes that have to be acquired by the learner within the specified timelines of the course, usually by the end of the semester, in addition to the learning resources and strategies needed to achieve the goals and the assessment modalities to ascertain that the goal has indeed been accomplished. The students and the faculty supervisor mutually agree to this plan of action and thereafter the LA is signed by both [1,2]. LAs are useful for encouraging reflection by students wherein students review their goals and strategies and evaluate their learning and progress towards attaining their targets. This reflection in turn fosters development of metacognitive self-regulatory skills for the students. The advantages of learning contracts as an educational tool have been well documented in occupational therapy training programs [3], respiratory therapy programs [4], nurses training [5,6], training of engineers [7] and medical education [8]. However, to the best of our knowledge, there is no report on the implementation of LAs from India.

This educational project was done after obtaining clearance from the Institutional Ethics Committee, in the Department of Pediatrics at the Employees State Insurance Corporation (ESIC) Medical College and Hospital, Faridabad, Haryana during October to December 2023. An action research approach evaluated self-directed learning agreements as a teaching-learning strategy for communication skills among postgraduate (MD Pediatrics) students. The term 'learning agreement' was preferred over 'learning contract' to alleviate any concerns or reservations among the students and the faculty associated with the unfamiliar term 'contract.'

Discussions regarding self-directed learning, constructive feedback principles, and the importance of communication skills in clinical practice were held within the department, following which all the eleven postgraduate students and four faculty members consented to participate in this study. Each faculty member was tasked with mentoring two to three students. The competency chosen for developing LA was “*The*

student should be able to effectively communicate with parents/child about the nature of illness and the management plan [9].”

As evidence of learning, all students decided to get at least ten workplace-based assessments (WPBAs) of doctor-patient communications. These WPBAs provided immediate and formative feedback, enhancing knowledge and improving further practice through continuous mentorship. All WPBAs were done in a clinical setting where the mentor observed and assessed student-family communications using Gap-Kalamazoo Communication Skills Assessment Checklist (GKCSAC) [10]. The assessment was rated poor to excellent using global ratings on a Likert scale of 1 to 5 (poor 1, fair 2, good 3, very good 4, excellent 5). All students committed that at the end of the LA, they should achieve a score ≥ 2 and demonstrate improvement by ≥ 1 point in all the nine items of GKCSAC. All students initially committed to complete their LA within the next four weeks (**Web Annexure I**).

Students participated in framing their learning objectives and decided upon their learning resources under the supervision of mentor faculty. Learning resources included Kalamazoo Consensus Statement for communication skills, books, internet resources (online articles, blogs, videos, shorts, and movies), conscious observations of doctor-patient communications conducted by colleagues and seniors at the work-place, and discussions with colleagues and seniors regarding their experiences. During the implementation of LA, the mentor faculty provided continuous supervision to students as they navigated the educational agreement.

At the end, all participants (students and the faculty) were surveyed for their experience with LA using structured closed-ended questions based on 5-point Likert scale (strongly disagree 1, disagree 2, neutral 3, agree 4, strongly agree 5). Context of each statement was considered to convert results of Likert scale into a meaningful satisfaction index. For some items, a 'strongly agree' response indicated a positive sentiment, while for others, it indicated a negative sentiment. Satisfaction index was calculated by dividing the sum of all responses by the number of respondents. Descriptive and inferential statistics (Wilcoxon Rank Sum test) were applied to the data using SPSS version 25.0.

Reflection writing was also done by participants in *Rolfe model* including three fundamental steps i.e., ‘*What happened?*’ (Description of the process), followed by ‘*So what?*’ (Analysis of the event), and ‘*What next?*’ (Expectations for future practice based on what they have learned). Content analysis of the reflections written by the participating students was done using an inductive approach.

Three postgraduate students were in their third year of residency training, three in their second year, and five in their first year. They were five female and six male students, aged 25 to 33 years with a median (IQR) age of 28 (25.5, 29.5) years. The four participating faculty members ranged in age from 33 to 42 years [median (IQR) age 35 (33.7, 37.5) years]. All students were noted to have an individual pace of learning. Only one student managed to complete his LA within the agreed duration of four weeks. The remaining ten students extended the duration of their LA by 2-4 weeks in consultation with their faculty mentors.

Before implementation of LA, the composite GKCSAC score of students ranged from 9-18, which increased to 25-37 after completion of the LA. The median (IQR) composite GKCSAC score increased from 14 (11, 14) to 27 (27, 33) after completion of the LA ($P = 0.003$). There was also a significant increase in each of the nine distinct components of the GKCSAC ($P < 0.01$). At the end of LA, all eleven students

reached a minimum level of 'fair' (score ≥ 2) and also demonstrated improvement by ≥ 1 point in all nine items of GKCSAC. One student was rated 'very good to excellent' (score 4 or 5) for all the nine items; three students were rated 'good to very good' (score 3 or 4) for all the nine items and six students were rated 'good' (score 3) for all the nine items of GKSAC. One student was rated as 'fair' (score 2) in demonstrating empathy', although he was rated 'good' (score 3) for the remaining eight items.

The overall feedback received from students and faculty was encouraging (**Table I**). Four main themes and ten subthemes emerged from the content analysis of student reflections, viz, (i) *Weaknesses* before implementing the LA (lack of competency while communicating with parents and families, lack of confidence while communicating with parents and families); (ii) *Strengths* after completing LA (awareness about the importance of communications skills in professional success and better healthcare outcomes, gain in competency and gain in confidence while communicating with parents/ families, improvement in interpersonal communications); (iii) *Future action plans* (continue practicing what is learned, continue further improvement in communication skills); and (iv) *Student suggestions* (regular introduction of LA in postgraduate and undergraduate level). Few verbatim reflection writings of students are shown in **Web Annexure II**.

This study demonstrated that LAs add structure to the learning process, offer suitable experiential learning and reflection opportunities, and are flexible enough to accommodate a wide range of students. Incorporating learning agreements as a regular teaching strategy should extend beyond pediatric postgraduate education to other disciplines. This approach shows promise for teaching and learning a wide range of skills and competencies in postgraduate training. However, detailed planning, commitment, student involvement, institutional support and adequate resources are necessary to successfully implement LA as a teaching-learning strategy. Faculty development would play a vital role in the implementation and sustainability of such a program. Since this study was conducted in a single institute and department, the scope of application and generalizability should be verified through further studies conducted in diverse departments and institutions.

Ethics clearance: ESIC Medical College and Hospital, Institutional Ethics Committee No. 134 X/11/13/2023-IEC/DHR/102, dated Sep 15, 2023

Acknowledgements: The authors extend their gratitude to the NMC Nodal Centre for Faculty Development, Christian Medical College, Ludhiana; Dean and the Medical Education Unit of ESIC Medical College and Hospital, Faridabad, for their guidance during the project. Special acknowledgements are due to Drs. Anika Agarwal, Prince Pareek and Ankit Meena for their participation as mentor faculty. We thank Dr. Mitasha Sharma, Assistant Professor, Department of Community Medicine, Dr. Baba Sahib Ambedkar Medical College and Hospital, New Delhi, for her assistance in data analysis.

Contributors: Both authors contributed to all aspects of the study and manuscript writing. Both authors approved the final version of the manuscript.

Funding: None; *Competing interests:* None stated.

REFERENCES

1. Fox RD, West RF. Developing medical student competence in lifelong learning: the contract learning approach. *Med Educ* 1983;17:247-53.
2. Anshu, Gupta P, Singh T. The concept of self-directed learning: implications for practice in the undergraduate curriculum. *Indian Pediatr.* 2022;59:331-8.
3. Gaipman B, Anthony A. Contracting in fieldwork education: the model of self-directed learning. *Can J Occupat Ther.* 1989;56:10-14.
4. Rye KJ. Perceived benefits of the use of learning contracts to guide clinical education in respiratory care students. *Respir Care.* 2008;53:1475-81.
5. Bailey ME, Tuohy D. Student nurses' experiences of using a learning contract as a method of assessment. *Nurse Edu Today.* 2009;29:758-62.
6. Sajadi M, Fayazi N, Fournier A, Abedi AR. The impact of the learning contract on self-directed learning and satisfaction in nursing students in a clinical setting. *Med J Islam Repub Iran.* 2017;31:72.
7. Frank T, Scharff LFV. Learning contracts in undergraduate courses: Impacts on student behaviors and academic performance. *J Sch Teach Learn.* 2013;13:36-53.
8. Visioli S, Spinelli A, Oldani S, et al. Using learning contracts in undergraduate medical education: the 'students' point of view. Paper presented at the AMEE 2008 conference, Prague, Czechoslovakia, 2008. Accessed on June 9, 2024. Available from: https://www.academia.edu/24102850/Using_learning_contracts_in_undergraduate_medical_education_the_students_point_of_view
9. National Medical Commission. Guidelines for Competency-based Postgraduate Training Programme for MD in Pediatrics. Accessed on Aug 10, 2023. Available from: <https://nmc.org.in/wp-content/uploads/2019/09/MD-Pediatrics.pdf>
10. Rider EA. Gap-Kalamazoo communication skills assessment form (version: clinician/faculty). Interpersonal and communication skills. *In:* Rider EA, Nawotniak RH, editors. *A Practical Guide to Teaching and Assessing the ACGME Core Competencies.* 2nd ed. HCPro, Inc.; 2010. p1-137.

Table I Perceptions of the Students and Faculty for Learning Agreement

	<i>Strongly disagree (n)</i>	<i>Disagree (n)</i>	<i>Neither agree nor disagree (n)</i>	<i>Agree (n)</i>	<i>Strongly agree (n)</i>	<i>Satisfaction index</i>
<i>Perceptions of students (n = 11)</i>						
LA helped you identify your learning needs	-	-	-	3	8	4.7
LA provided you specific learning objectives	-	-	-	6	5	4.5
LA specified learning resources and strategies	-	-	-	8	3	4.3
LA increased your motivation to learn the skill	-	-	-	5	6	4.5
LA allowed you control the teaching-learning process	-	-	3	4	4	4.1
You felt more self-disciplined during LA	-	-	3	1	7	4.4
Your received adequate feedback and guidance from faculty during LA	-	-	-	2	9	4.8
You feel more competent in the skill now	-	-	-	5	6	4.5
You feel more confident in the skill now	-	-	-	3	8	4.7
LA will help you retain the subject matter better	-	-	-	3	8	4.7
You felt stressed due to the LA ^a	1	7	-	3	-	3.5
More skills and competencies in postgraduate training should be taught using LA	0	0	-	4	7	4.6
<i>Perceptions of Faculty (n = 4)</i>						
Students actively participated in development of LA	-	-	-	1	3	4.7
Students were motivated during process of LA	-	-	-	2	2	4.5
Students asked for regular feedback and guidance from you during LA	-	-	-	2	2	4.5
Students are more competent in the skill now	-	-	-	1	3	4.7
Student are more confident in the skill now	-	-	-	1	3	4.7
Teaching-learning by LA was more time-consuming ^a	-	2	1	1	-	3.2
You felt extra-burdened during the process of LA ^a	-	2	2	-	-	3.0
More skills and competencies in postgraduate training should be taught using learning agreements	-	-	-	2	2	4.5

LA Learning agreement

For some items, a 'strongly agree' response indicated a positive sentiment, while for others, it indicated^anegative sentiment

Web Annexure I Learning Agreement

Department of Pediatrics, College and Hospital

Name of Student Batch

Phone number Email

Name of faculty mentor Designation

Phone number Email

Competency: The student should be able to effectively communicate with parents/family about the nature of illness and management plan.

Timeline: From (start date) To (end date) Duration

Learning Objectives (What do I want to learn?)	Learning Resources (What will help me learn?)	Evidence (How do I know and prove what I have learnt?)	Criteria for assessment (How will I know if the desired objectives are achieved?)	Action plan for future (What will be my commitment for future?)
I should... 1. Know the importance of respecting patient privacy and maintaining confidentiality during communications. 2. Know about the rights of the patient (child and family), including the right to information and second opinion. 3. Be able to communicate the nature of illness, and the diagnostic and therapeutic options to parents and relatives of the child in a respectful, nonthreatening, non-judgmental and empathetic manner. 4. Adopt proper etiquettes when dealings with patients and relatives.	1. Kalamazoo Consensus Statement regarding communication 2. Textbooks 3. Internet Resources (online text, videos, shorts and movies) 4. Conscious observations of doctor-patient communications by my colleagues and seniors at workplace 5. Discussions with my colleagues and seniors regarding their experiences	Ten or more workplace-based assessments and feedback sessions by the mentor faculty using standard checklist	At the end of learning agreement, I should reach at least a level of "fair" and show improvement by ≥ 1 points in all the 9 items of Gap-Kalamazoo Communication Skills Assessment Checklist.	1. Continue practicing what is learnt in more complex scenarios 2. Continue further improvement in my communication skills

I agree to take part in this educational activity freely and give my consent to participate with full understanding about the learning agreements. I had been given the opportunity to ask questions and all my questions have been answered satisfactorily. I understand this educational agreement is voluntary and that I can withdraw from the it any time without prejudice. I have also received a copy of this learning agreement.

Signature of Student

Signature of Faculty

Web Annexure II Few Verbatim Reflections of Students on the Use of Learning Agreements

“Before these sessions, everything was focused entirely on giving information irrespective of understanding the mental status of the parents/ attendants. Whether they are in a position to accept or even listen to it. I was not aware of body language and expressions could mean so much to them.”

“As I started my residency, I encountered hesitancy and under confidence while counseling. I was a bit nervous when dealing with agitated parents.”

“This was a different and good experience to me and I am now much confident, learnt how to have patience with the patient, my listening skills have improved, sense of responsibility toward patient and their attendant, learnt how to deal with different attendants, learnt where I was lacking.”

“I appreciate these activities teaching us life skills. I will become better in professional but also take this during personal communications.”

“No doubt, I am still far away from doing best but as they say learning is a process and keeps going on, but a vision and a beginning has been started from now onward.”