

Teaching Communication with Disabled Patients Using Case-Based Learning – Experience from practice

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Abstract

The aim of this paper is to describe what lecturer's experiences of teaching communication are with disabled patients using CBL method at Faculty of Medicine and Dentistry, Palacký University Olomouc. The CBL didactic method includes both intentional and unintentional learning. It is a method of controlled questioning and provides more space for teaching of small groups.

During lessons students can communicate with a disabled patient, i.e. an adult with limited legal capacity due to mild mental retardation, and his public guardian. It helps medical students better understand communication processes with a disabled patient and develop interpersonal skills. Using CBL method, students think critically and ask targeted questions to the public guardian of the disabled patient. This experience strengthens the feeling of empathy with the patient, allows him to get to cooperate in treatment. Students are familiar with the communication problem before the lesson. The teacher acts as a facilitator.

The inclusion of patient with limited legal capacity and his guardian in the conduct of CBL communication seminars meet the needs of practical training in communication.

Keywords: *Disability; mental retardation; legal capacity; health communication; medical education; case-based learning.*

1. Introduction

The education of medical students in the field of communication is changing. The quality of medical education depends on various factors, such as curriculum, patient exposure, faculty expertise in the subject, knowledge, and training in teaching-learning methodology (Nanda & Manjunatha, 2013). Students in medical and health-care fields are taught using traditional methods, i.e. face-to-face lectures. It is supported by video tutorials (Wynter et al., 2019) and innovative didactic methods such as Problem-based learning (PBL) and Case-based learning (CBL). These educational methods (PBL and CBL) in the teaching of practical medicine have become increasingly popular both in the Czech Republic and abroad (Srinivasan et al., 2007; McLean, 2016; Kenchaiah & Krishna, 2016; Wynter et al., 2019; Galiana, 2019; Ali et al., 2019).

Since 2014, the Faculty of Medicine and Dentistry, Palacký University Olomouc, has been teaching communication within the 1st, 3rd and 4th year of the General Medicine study program. In the 4th year, the compulsory-elective subject “Communication with disabled patients” is taught. The course consists of 2 topics: a) communication with patients with limited legal capacity, and b) communication with geriatric patients. The main author of this article has taught medical students the topic communication with patients with limited legal capacity in 4th year of General Medicine since 2014.

The condition for effective communication with disabled patients is to understand the type of disability and the patient's specific needs. Persons with limited legal capacity are adults who have mental disorders due to which they cannot act legally, and the court appointed a guardian for them. These persons often face prejudices and are often threatened by social exclusion, discrimination by the majority society (Juríčková et al., 2014). Communication with persons with mental disorders, who have mental retardation, has its specifics (Boardman et al., 2014). The following manifestations often occur in persons with mental retardation: decreased level of mental abilities and difficulties in communication, difficulties in learning, attention deficit, poorer orientation in time and space, lower level of social skills, inadequate self-evaluation and low self-esteem. Intellectual disability is classified in ICD-10 (F70–79) as mild, moderate, severe and profound mental retardation (WHO, 2010). In practice, medical students will also need to communicate with these persons. Worldwide, a number of health issues are directly and indirectly related to communication (Wright et al., 2013). Patient-physician compliance is the result of a mutual relationship and communication. The aim of this paper is to describe what lecturer's experiences are in teaching of communication with disabled patients using CBL method at Faculty of Medicine and Dentistry, Palacký University Olomouc.

2. Case-based learning method characteristics

According to Slavin *et al.* (1995) in CBL the group focuses on creative problem solving. Srinivasan *et al.* (2007, pp. 74-75) characterize CBL method as follows:

“[...] learners are presented with a clinical problem and have time to struggle, define, and resolve the problem. However, when learners begin to explore tangents, the facilitators will use guiding questions to bring them back to the main learning objective. Additionally, students prepare in advance for the session, and they may ask questions of the local experts during the session.”

CBL teaching method includes intentional and unintentional learning. This means that it includes both learning planned by lecturer and learning organized by the student himself, but also unintentional learning, i.e. learning during the analysis of individual problems, situations or dilemmas, as part of life experiences (Tučková *et al.*, 2020). CBL method is a method of controlled questioning and provides more space for teaching in small groups. This method provides more general instruction through the course of individuals (Srinivasan *et al.*, 2007; Thiel *et al.*, 2013).

The teaching of communication with disabled patients at Faculty of Medicine and Dentistry, Palacký University Olomouc is exceptional and medical students have the opportunity to communicate with disabled patient during that course (i.e. an adult with limited legal capacity due to mild mental retardation) and his public guardian (i.e. social worker). CBL didactic method has been successfully used in this teaching for two years now with positive feedback from medical students.

3. Use of CBL method in teaching of communication with disabled patients

The teaching of communication with disabled patients takes place with the participation of an adult patient with limited legal capacity and his public guardian using CBL methods as follows, see table 1.

Table 1. The use of CBL method in teaching of communication with disabled patients.

Instructional element	Case-Based Learning (CBL)
Presenting problem	Adam (38 years old) is patient with limited legal capacity due to mild mental retardation (dg. F70). According to the verdict, Adam is not obliged to visit doctor in company of public guardian. Adam goes to the doctor alone.
Description of situation	Adam has issues in communication with his dentist. Adam states that he does not understand the communication. Dentist often interrupts Adam’s speech, or stops him altogether. Also, according to Adam, dentist give orders and scream on him once is Adam afraid to open his mouth for examination.
Student pre-session preparation	Students get acquainted with the issue of general concept of communication with people with limited legal capacity in the seminar within the subject of “Social medicine”. Then within the teaching of the subject “Communication with disabled patients”, even before a patient with limited legal capacity comes to the class with his public guardian. Teaching continues with the direct participation of a patient with limited legal capacity and his public guardian using CBL method.
Initial question to begin discussion	The discussion begins with a general question: “ <i>Why do you think there was a misunderstanding between a patient with limited legal capacity and his dentist?</i> ” Discussion continues through additional questions: “ <i>How would you feel, if during medical examination you were screamed on? What is it like to ask something but the doctor won’t let you speak? And how, in such circumstances, does an adult patient with limited legal capacity feel in his autonomy?</i> ” Think about what is currently going on in the patient’s mind when communicating with his dentist.
Student approach	Students are encouraged to ask during lecture, not only regarding to given communication problem/situation, but also about communication in general. Students also need to respond to questions asked by the lecturer.
Lecturer’s approach to students’ incorrect knowledge or assumptions	Lecturer during CBL method can: <ul style="list-style-type: none"> •Redirect and explore incorrect statements: “<i>Why do you think so? Can you provide some examples?</i>” •Discuss alternate techniques: “<i>What bad communication habits did dentist use?</i>” “<i>Do you think Adam is able to decide on his treatment?</i>” “<i>Have you ever think how patients with mild mental retardation percieve us?</i>”
Faculty approach to „clinical blind-alley” digression	Probe learner for alternatives: “ <i>Why do you think that is important in this case? What else might you consider that might be important? What do the rest of you think?</i> ”
Student use of additional resources during the session	None required.
Case continuity	The time allowance (3 teaching hours) from the students’ point of view is sufficient and therefore this seminar does not end with unanswered or unresolved questions.

Source: Modified from Srinivasan *et al.*, 2007. Note: Patient’s name was modified for legal protection reasons.

In the beginning, theoretical base in communication with disabled patients are presented. After that, lecturers introduce the case and present the problem. The communication is guided by lecturer and performed by students, using their own words to cover their individual information needs (table 1). Lecturer guides the communication and through focused questions redirects attention to specific communication aspects. CBL approach shifts from passive learning to active participation of students in the process. Discussion within the group enhances understanding of given topic. In practice, more questions arise during the communication of students with Adam and his public guardian. Medical students are the most interested in the following categories of questions: a) communication in the doctor-patient relationship, b) communication with the public guardian, c) communication with other staff, and d) the life story of Adam. These questions are, for example: *“Adam, how do you communicate with your psychiatrist?” “Why don’t you want your public guardian to accompany you to medical visits?” “What bothers you the most now?”* The most frequently asked questions towards public guardian are following questions: *“How do you communicate with doctors?” “How do you communicate with patients with limited legal capacity?”* During lectures, questions formulated by students are answered by Adam and his public guardian as well as lecturer, who has been dealing with patients with limited legal capacity for a long time.

Also, students learn that some questions are not well formulated and do not lead to intended response. These include: a) students ask Adam questions which are long and less understandable, b) students do not provide space for Adam’s response and respond instead of him, c) in the course of session, students do not verify level of Adam’s understanding, d) students communicate with Adam from position of adult towards child (act as Adam is a child) and e) students do not ask Adam, but his public guardian instead. Medical students during communication with Adam often slip into bad habits, such as mind-reading, interruption of speech, unclear or less specific statements. Assertive communication is one of tools used both in effective communication and mental hygiene.

The evaluation of students shows that communication with Adam and his public guardian is very beneficial. Especially, it is appreciated that students can ask all kinds of questions and better understand the depth of problem in broader life context. In past 2 years, 55 students participated in the communication course each year. Each group consisted of maximum 15 students (in the course of 3 teaching hours). Communication with persons with limited legal capacity seminars were introduced 5 years ago. Last two years, CBL method was used. Also, due to COVID-19 pandemic, teaching had to be in online form.

During the section, majority of students participated actively, reluctance rate was extremely low. Reluctant students sometimes explained, that they were not asking because they were afraid of Adam with assumption of possibly aggressive behavior. Adam, on the other hand, was glad that he could share his life story and perceived his participation as positive.

4. Discussion

Teaching communication with disabled patients using CBL method has its advantages. Among advantages is students' ability to learn to think critically and learn to ask targeted questions of the disabled patient and his public guardian. This experience strengthens the feeling of empathy with the patient, and allows getting patient to cooperate in treatment. Small group setting provides great advantage regarding space for participation of each student according to his individual needs. Students are familiar with the communication problem before the lesson. The teacher acts as a facilitator. The facilitator structures and leads the process according to the situation and time, involves all students equally in the discussion, promotes trust, openness and sharing of opinions, returns the ongoing discussion to the topic and goals, helps clarify incomprehensible content, prevents conflicts or resolves them. Facilitator is the person who prepares the course of the meeting and then accompanies it from beginning to end. He should play a neutral role (Wilkinson, 2011). Also, this cooperation is in some sense beneficial to the subject – patient with limited legal capacity and his public guardian. Public guardian through this intervention gains more insight into specifics of health communication and learn ways how to resolve inefficient communication.

CBL method has also limitations. We came to an opinion, similarly to Srinivasan *et al.* (2007) that controversy remains about which method of small-group learning is most effective, time efficient, and palatable to the learner and teacher. Involvement of students heavily depends on student's personal characteristics, as well as characteristics of his or her study group. It is crucial that facilitator gives space equally to each group member. Our experience with CBL teaching method in communication has shown that the role of facilitator is also very demanding and requires long-term training. "Teachers may adopt this role initially, again to model appropriate skills or to monitor and adjust progress along the way. Alternatively, students may be encouraged to develop such skills, sometimes in small groups, in an explicitly designated role." (Allchin, 2013, p. 370). Also, facilitator plays the role in cooperation with patient with limited legal capacity and his public guardian, their personal relationship and mutual trust. Based on personal relationship between lecturer and patient with limited legal capacity and his public guardian, it is important that lecturer stays independent and does not take stand of one of the sides.

Communication skills training is more effective in student-centered applications (Lau & Wang, 2013). The inclusion of CBL method in the teaching of communication with disabled patients has its justification, which is mainly seen in improvement of a relationship of a doctor and patient with disability. The research of Yoo & Park (2015) showed that students and teachers prefer the didactic method of CBL, because it contributes to the development of discussion, the topic of the seminar is predefined and it is possible to prepare well in advance. Teaching based on the use of an inappropriate communication situation leads to an active solution of the communication problem. This includes the sharing of opinions in a group, as

well as verbal and nonverbal interaction with a disabled patient present at the seminar. CBL therefore represents an effective strategy for practicing communication skills, stimulation of the interest, curiosity and inner attention of individuals, thus supporting active participation and subsequent motivation to learn. A tangible and realistic case that is used in teaching of communication is relevant to the clinical environment, thus improving students' motivation to learn. This is the reason why CBL has been becoming more effective didactic method than the traditional concept of frontal teaching to improve communication skills, develop problem-solving ability and motivation to practice effective communication in medical students. The research on communicative and social skills in medical students conducted in Spain (Ruiz de Azúa *et al.*, 2020) revealed that the medical students who participated in the study have empathy and active listening skills. However, authors suggest, that in some students, communication skills do not necessarily improve with training or experience. Health care professionals need to provide a context in which patients feel able to participate and to share decisions if they want to, thus ensuring a good experience for those patients (National Clinical Guideline Centre, UK). Effective communication with a disabled patient allows the patient get to comply with treatment recommendations.

In future, broader CBL method use would lead not only to improvement of communication skills, but make learning more efficient. CBL can be potentially performed not only in frontal way, but might include technologies (online conferencing) in combination with contact sessions. Ultimately, virtual patient strategy might be developed, with respect to complex algorithm to stimulate broader variety of both health and life situations.

5. Conclusion

Today, CBL method is still insufficiently used. Although especially in communication (not only with patient with limited legal capacity) has great potential for future medical professionals. Wider use of CBL increases the quality of education provided to medical students, especially in relation to patient care education. By connecting theory with practice, CBL method evokes deeper motivation, promotes social responsibility, raises awareness of the complexity of the physician-patient communication process and provides an educational framework to facilitate the application of basic communication skills, social and behavioral sciences in the context of personal, emotional and experiential learning. CBL can lead to improvements in clinical performance, attitudes, empathy as well as improvement in patient's compliance.

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References

- Ali, N., Crawford, R., & Horn, M. (2019). Critical thinking in PBL: Development of a bespoke tool for critical thinking. *5th International Conference on Higher Education Advances (HEAd'19)*, 513–529. doi: 10.4995/HEAd19.2019.9366.
- Allchin, D. (2013). Problem- and Case-Based Learning in Science: An Introduction to Distinctions, Values, and Outcomes. *CBE – Life Sciences Education*, 12, 364–372. doi: 10.1187/cbe.12-11-0190.
- Boardman, L., Bernal, J., & Hollins, S. (2014). Communicating with people with intellectual disabilities: A guide for general psychiatrists. *Advances in psychiatric treatment*, 20(1), 27–36. doi: 10.1192/apt.bp.110.008664.
- Galiana, L. (2019). A first experience with Problem-based learning in a course of Psychometrics. *5th International Conference on Higher Education Advances (HEAd'19)*, 521–529. doi: 10.4995/HEAd19.2019.9448.
- Juríčková, L., Ivanová, K., & Filka, J. (2014). *Guardianship of people with mental disorder*. Prague, Czech Republic: Grada Publishing.
- Kenchaiyah, S., & Krishna, P. (2016). Comparative study of case based learning with traditional teaching method in pharmacology for second year MBBS students. *International Journal of Basic & Clinical Pharmacology*, 5(4), 1210–1214. doi: 10.18203/2319-2003.ijbcp20162221.
- Lau Y, & Wang W. (2013). Development and evaluation of a learner-centered training course on communication skills for baccalaureate nursing students. *Nurse Education Today*, 33(12), 1617–1623. doi: 10.1016/j.nedt.2013.02.005.
- McLean, S. F. (2016). Case-Based Learning and its Application in Medical and Health-Care Fields: A Review of Worldwide Literature. *Journal of Medical Education and Curricular Development*, 3, 39–49. doi: 10.4137/JMECD.S20377.
- Nanda, B., & Manjunatha, S. (2013). Indian medical students' perspectives on problem-based learning experiences in the undergraduate curriculum: One size does not fit all. *Journal of Educational Evaluation for Health Professions*, 10, 11. doi: 10.3352/jeehp.2013.10.11.
- National Clinical Guideline Centre (UK). (2012). *Patient Experience in Adult NHS Services: Improving the Experience of Care for People Using Adult NHS Services: Patient Experience in Generic Terms*. Royal College of Physicians (UK). Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK115230/>.
- Ruiz de Azúa, S., Ozamiz-Etxebarria, N., Ortiz-Jauregui, M. A., & Gonzalez-Pinto, A. (2020). Communicative and Social Skills among Medical Students in Spain: A Descriptive Analysis. *International Journal of Environmental Research and Public Health*, 17(4), 1408. doi: 10.3390/ijerph17041408.

- Slavin, S. J., Wilkes, M. S., & Usatine, R. (1995). Doctoring III: innovations in education in the clinical years. *Academic medicine: journal of the Association of American Medical Colleges*, 70(12), 1091–1095. doi: 10.1097/00001888-199512000-00010.
- Srinivasan, M., Wilkes, M., Stevenson, F., Nguyen T., & Slavin, S. (2007). Comparing Problem-Based Learning with Case-Based Learning: Effects of a Major Curricular Shift at Two Institutions. *Academic Medicine*, 82(1), 74–82. doi: 10.1097/01.ACM.0000249963.93776.aa.
- Thiel, C. E., Connelly, S., Harkrider, L., Devenport, L. D., Bagdasarov, Z., Johnson, J. F., & Mumford, M. D. (2013). Case-based knowledge and ethics education: improving learning and transfer through emotionally rich cases. *Science and engineering ethics*, 19(1), 265–286. doi: 10.1007/s11948-011-9318-7.
- Tučková, D., Ivanová, K., & Lemrová, A. (2020). Problem-based Learning and Case-Based Learning as didactic methods in teaching medical ethics. In R. Ptáček, & P. Bartůněk (Eds.). *Hope in medicine* (pp. 375–381). Prague, Czech Republic: Grada Publishing.
- Wilkinson, M. (2012). *Secrets of facilitation*. New York, United States: Wiley.
- World Health Organization. (2010). *International Statistical Classification of Diseases and Related Health Problems*. 10th Revision (ICD-10), edition 2010. Geneva, Switzerland: WHO.
- Wright, K. B., Sparks, L., & O'Hair, D. H. (2013). *Health Communication in the 21st Century*. 2nd Ed. Oxford, UK: Wiley.
- Wynter L., Burgess A., Kalman E., Heron J. E., & Bleasel, J. (2019). Medical students: what educational resources are they using? *BMC Medical Education*, 19(1), 36, doi: 10.1186/s12909-019-1462-9.
- Yoo, M. S., & Hyung-Ran, P. (2015). Effects of case-based learning on communication skills, problem-solving ability, and learning motivation in nursing students. *Nursing and Health Sciences*, 17(2), 166–172. doi: 10.1111/nhs.12151.