

## How to Give Feedback on Professionalism in Clinical Education: A Narrative Review

Shiva Khayyati Motlagh Bonab<sup>1</sup>, Aeen Mohammadi<sup>2</sup>, Sevda Fazlizade<sup>3</sup>, Elnaz Hashemzadeh<sup>4</sup>, Reyhaneh Golbaf<sup>2</sup>, Hojjat Torkmandi<sup>5</sup>, Mohammad Abdi<sup>2\*</sup> 

<sup>1</sup>Department of Midwifery, Maragheh Branch, Islamic Azad University, Maragheh, Iran.

<sup>2</sup>Department of Medical Education, School of Medicine, Tehran University of Medical Sciences, Tehran, Iran.

<sup>3</sup>MSc of Psychiatric Nursing, Tehran Azad Medical University, Tehran, Iran.

<sup>4</sup>Department of Nursing, Tabriz university of Medical Sciences, Tabriz, Iran.

<sup>5</sup>Department of Nursing, Zanjan University of Medical Sciences, Zanjan, Iran.

**Received:** 2022 December 29

**Revised:** 2023 April 21

**Accepted:** 2023 May 06

**Published online:** 2023 May 08

**\*Corresponding author:**

Department of Medical Education,  
School of Medicine, Tehran University of  
Medical Sciences, Tehran, Iran.  
Email: m.abdi252@gmail.com

### Citation:

Khayyati Motlagh Bonab Sh,  
Mohammadi A, Fazlizade S,  
Hashemzadeh E, Golbaf R, Torkmandi  
H, Abdi M. How to Give Feedback on  
Professionalism in Clinical Education: A  
Narrative Review. Strides Dev Med Educ.  
2023 May; 20(1):29-37.  
doi:10.22062/sdme.2023.198214.1154

### Abstract

**Background:** Professionalism means understanding a profession and introducing it to the society through professional behaviors. In particular in clinical settings, constructive feedback is provided in education to create professional behaviors.

**Objectives:** This study aimed to investigate giving feedback on professionalism in clinical education.

**Methods:** A narrative review was conducted in PubMed and Google Scholar on the publications over the last 10 years. Eight hundred twenty-six articles were found in the first step, among which 30 were handed over to the expert panel. Fifteen of 30 articles were finally selected.

**Results:** The data of the studies were in four categories: feedback techniques, feedback in curriculum, the scope of feedback, and feedback outcome. Feedback on professionalism was mostly presented through online services, portfolio, video-based systems, by a preceptor or peers, longitudinally in internship courses, and Multi Source Feedback (360 degree). In a study, feedback on professionalism was considered formally in the curriculum. Educational experts give both formative and summative feedback (most of which were formative). Based on the literature, feedback can enhance learning professionalism, curriculum reforms, system support, student comfort, evaluations, and efficacy of professionalism.

**Conclusion:** Multi-Source feedback assessment was the most used tool for giving feedback in professionalism, and the most popular form was informal-formative feedback. Since professionalism is a multidimensional concept related to personal communication, multi-source tools have been the most commonly used in the literature.

**Keywords:** Feedback, Professionalism, Clinical Education

### Background

Although a century has passed since the attention to professionalism, no common definition has been reported for it in the literature and it is still considered a complicated issue (1, 2). Professionalism is one of the main behavioral principles in clinical settings and it deals the relationship between physicians and society. These relationships and behaviors are described based on House's Personality and Social Structure Perspective (PSSP) model in three levels of social structure, interactions, and individual personality (3). To be professional, a doctor should have personality traits that match the structure of the environment, and the mutual interactions of these components create professional

behavior (4). Imbalance in such interactions can reduce the doctors' motivation or lead to social structure, both of which can be harmful. These traumatic issues mostly result in insufficient clinical skills, irresponsibility, unpunctuality, invasion of patients' privacy, disrespectfulness, lack of communication, and breaches of confidentiality (5), which can be prevented by education and preparation of the physicians for clinical settings. Medical education has tried to investigate them through evaluation (6), teaching (7), integration in the curriculum (8), and feedback (9). Among these, the focus of studies over the last decade has been on feedback, and it is recognized as effective in the teaching-learning process (10, 11). Providing feedback

is necessary for effective interactions between the two parties. It is so important that the foundation of professionalism is based on interactions (12).

The most important place for these interactions to take place is in the clinical setting for doctors and students, as it also includes the main doctor-patient relationships (13). In addition to education and evaluation, feedback is needed for achieving the best possible clinical interactions (14). Feedback is a reciprocal process including giving specific information about comparing the observed behavior of a student with a standard one to improve functions and operation (15). The real purpose of feedback is to help students and professors participate in a meaningful feedback process and to assist educational institutes develop a constructive feedback culture (16).

There are different types of constructive feedback in medical education. According to Tuma et al. (2020), types of feedback include 1) Feedback based on the setting and structure (formal and informal feedback), 2) Feedback based on their main aim (Constructive, Inspiring, Corrective), 3) Feedback based on their time and breadth (summative or formative), 4) Feedback with different presentation methods (Sandwich, Pendleton) (15). Kleij et al. (2019) have categorized feedback in groups by the role of the students: 1) Feedback in which students have no role (transmission model), 2) Limited role for students (information processing model) 3) Some student roles (communication model) (communication mode) and 4) Feedback with a fully active role of the students (dialogic model) (17). There are some models for standard feedback such as FEEDBACK, a novel feedback tool that encompasses the focus of learning, student self-evaluation (reflection), the encounter with the patient (professionalism), one task that the student should continue to do (reinforcement), one task that they could do better (improvement) and a key take-home message for self-directed learning. In describing the feedback process, they pay attention to the following at each stage: identifying learning objectives, a chance to reflect, feedback on communication skills/professionalism, specific suggestions for improvement, clear take-home message, and personalized feedback (18). Sometimes feedback takes place in the educational settings, and it is designed according to the educational conditions, such as feedback based on the homework, university projects, and exams (19). Feedback may also be specified (20) or general (21).

Feedback patterns which were described in the previous paragraphs are too general and there is a need

to a specific kind of feedback in every educational situation. Humanistic and social structures form the foundation for teaching and evaluating professionalism (3), which is completely different from other academic settings. There are always some teaching and learning processes going on in a typical academic situation, but clinical context treatments, preventions, social communication, and education are occurring at the same time (22).

In addition to students and educators, health care providers, patients, and their families are present and interact with them. Each of these is in a particular condition that differentiates clinical education from academic one (23). The patient faces symptoms of illness, anxiety, pain, and tension (24), and the patient's family faces stress, anxiety, and worry (25). Care providers also face busy work, anxiety, and job fatigue (26). An essential part of professionalism is evaluation and feedback on learners' professional behavior with others in the clinical setting. Thus, it is necessary to pay attention to feedback on professionalism regarding that the one of the significant differences in giving feedback on professionalism is in clinical education vs. academic. Elliott et al. (2020) (27), Keshmiri et al. (2020) (28), and Duijn et al. (2019) (29) noted the lack of studies in this field. Thus, to fill the knowledge gap in this field and having not found a review study, and for answering the question of "How to give feedback on professionalism in clinical education", prompted the researchers to conduct this study.

### Objectives

This study aimed to investigate giving feedback on professionalism in clinical education.

### Methods

"How should be feedback on professionalism is given in clinical education" was the question of this research. The best way to answer such a question based on our goals, context, and resources was to conduct a narrative review. In a narrative review, researchers try to find new aspects of knowledge and solve ambiguities by focusing on a certain subject (30). Therefore, this review was conducted to find what had already been done and to address the existing gaps for future approaches to be planned and filled. Narrative review has been used in different medical education studies such as Klasen M. et al. (2019) (31) and Ross et al. (2021) (32).

The search process consisted of two steps:

At first, a simple non-systematic search was conducted in Google Scholar and PubMed with "professionalism", "education", and "feedback" as key

terms. Google Scholar and PubMed are popular database and search engines for scholarly publications. Almost all publications can be found with PubMed and Google Scholar. On the other hand, PubMed is the largest database of medical science publications (33). We realized that no narrative review has been written before in this subject (10-19). All review papers were devoted to general feedback in clinical education, and there were no reviews specialized in giving feedback in the field of professionalism in clinical education. With the data collected during this step, a conceptual framework was developed for the second stage of the search.

In the second step, a systematic search was conducted based on the MESH terms and the keywords of the systematic reviews (feedback, professionalism, clinical education) in PubMed and additional records identified through manual search in Google scholar (22 January 2012 to 22 January 2022). Our search strategy was:

((Feedback OR comment\* OR response OR evaluat\* OR assess\*) AND (professionalism OR "Medical Professionalism" OR "Professionalism, Medical" OR "Professionalism Education" OR "Education, Professionalism" OR 'Surgical Professionalism' OR "Professionalism, Surgical") AND ("clinical education" OR "Clinical Clerkship" OR "clinical practicum" OR "Clinical Practice" OR "Clinical Clerkships" OR 'Clerkships, Clinical' OR 'Clerkship, Clinical' OR 'Clinical Apprenticeship' OR 'Apprenticeship, Clinical' OR 'Apprenticeship, Clinical' OR 'Apprenticeships, Clinical' OR "Clinical Apprenticeships"))).

This strategy was supported by a research librarian. Our search was conducted in PubMed and Google scholar by exploring the reference lists of selected articles, whereby we identified additional references.

#### Inclusion/exclusion criteria

We included all articles in medicine, which used different approaches for feedback on professionalism. The inclusion criteria were the investigation of feedback on professionalism in clinical education. Articles that did not report feedback on professionalism in clinical education in their results section were excluded from the study. Figure 1 summarizes our search and selection process.

Screening stages of articles:

1. Two researchers conducted the search separately.
2. The search results were inputted into Endnote.
3. Duplications were removed.
4. Each individual researcher read the title and abstract.
5. The selected articles were reviewed by two researchers.

6. The full text of the articles was reviewed by two researchers (were the conflict papers marked for the focus group).

The selected articles were entered into the focus group.

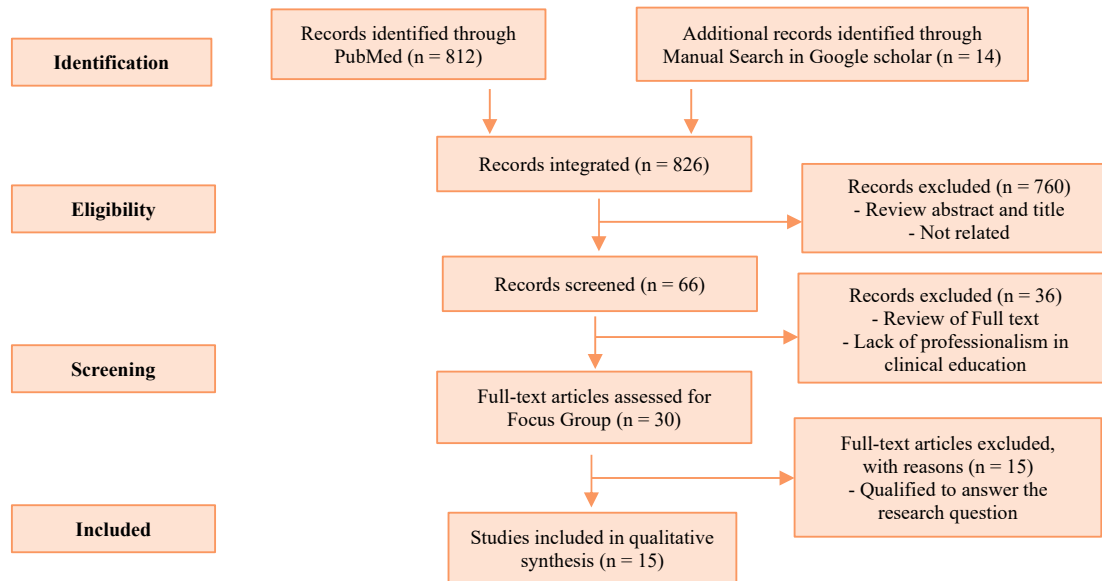
#### Results

Eight hundred and twelve articles were identified by searching in PubMed and 14 articles by manual search (n=826). According to the title and abstract, 66 articles were selected in the first step. By a full-text review, we removed sixty-six out of 66 articles. Papers that did not report feedback on professionalism in clinical education in their results section or those with mismatched titles and texts were excluded from the list. At last, the focus group chose 15 articles from the 30 remaining ones to discuss, organize, summarize, and answer the question: "What is the best way of giving feedback on professionalism in clinical settings?" The evaluation criteria of articles were based on a checklist that was designed for each article. This checklist included the title of the article, a summary of the methodology, and the results. In the final column, there was yes/no. which indicated whether this article offers a suitable answer to the research question or not. After the introduction of each article, the group members presented their opinions. Articles that were drafted yes were selected for the final report.

The expert panel identified some articles not to be qualified enough to answer the research question (Figure 1).

Note that the review articles in Table 1 are related to the general aspect of giving feedback in clinical education. Thus, no review that specifically assesses the feedback provided on professionalism in clinical education was found.

Articles about feedback on professionalism in clinical settings investigated it from four categories: feedback techniques, feedback in curriculum, scope of feedback, and feedback outcome (Table 1). Of 15 articles, one of them mentioned anonymous feedback through online settings (34); One had used portfolios as a tool for giving feedback (35); Some had pointed out video-based system feedback (36, 48). Feedback given by a preceptor (37) or peers (38, 50) was also mentioned in some Studies. Some had offered to give feedback in a longitudinal form in clerkship (39).



**Figure 1.** Flowchart of screening and selection of the articles

Most studies mentioned Multi Source Feedback (MSF) or 360 degrees as an appropriate feedback method (40-43, 47). In one study, feedback had a specified role in professionalism education in the curriculum (44). According to studies, feedback on professionalism was given both in summative and formative forms (35, 40, 45), with most studies mentioning the formative forms (36). Ten of 15 articles introduced feedback to be effective for

educating professionalism (34, 46), curriculum improvements (40), increase in qualifications (36), system support (44), professional behavior in clinical settings (43), student comfort (37), more accurate evaluations (42, 47) and finally better efficiency of professionalism (38). A summary of the results from the articles is provided in Table 2.

**Table 1.** Conceptual framework of studies about giving feedback on professionalism in clinical settings

Topic	Classification of studies	Result
Feedback on professionalism in clinical settings	Techniques of giving feedback	360 degree (29-32, 36), anonymous feedback through online settings (34), portfolio (35), video-based system feedback (36, 48), given by a preceptor (37), given by a peer (38, 50), give feedback in a longitudinal form in clinical clerkship (39).
	Feedback in Curriculum	Considering feedback on professionalism in clinical settings formally and hidden in the curriculum (42).
	Scope of feedback	Feedback on professionalism was given both in summative and formative form (35, 40, 45), most of the studies had mentioned formative forms (36).
	Outcome of feedback	Educating professionalism (34, 46), curriculum improvements (40), increase in qualifications (36), system support (44), professional behavior in clinical settings (43), student comfort (37), more accurate evaluations (42, 47) and better efficiency of professionalism (38).

**Table 2.** Articles about feedback in clinical professionalism

Author, Year	Design	Participant	Module of Feedback	Outcome
Upreet Dhaliwal, 2018, (34)	Qualitative study	All clinical batch students	Anonymous reflective narratives (online)	Writing of narratives enhanced learning about professionalism
Erynne A Faucett, 2017, (35)	Review	Otolaryngology resident	Specificity reflection, action plans, balancing reinforcing, corrective feedback. Summative and formative form	Not reported
John D Mitchell, 2018 ,(48)	Prospective cohort study	All medical students	Video-based educational program Negative/constructive feedback	Not reported
Paul S. Mueller 2015, (40)	Review	Articles published	Formative and summative feedback Multisource feedback (MSF) (360-degree)	Develop and improve professionalism curricula
Sydney McQueen, 2019, (36)	Scoping review	Surgical training	Video-based feedback, and surgical training - formative	Development of competence.
Yuhong Zhao, 2013, (41)	Educational intervention	Surgery residents	MSF	Not reported
Kathryn J.Smith, 2021 (45)	Scoping review	Articles published	Feedback type was formative and summative	Not reported
Mark Hochberg, 2017,(39)	Educational intervention	Surgical clerkship	Mandated mid-clerkship feedback	Not reported
Leslie A Hoffman, 2017, (43)	Quasi-experimental	Medical students	MSF	Increased professionalism
Freudenreich, 2018, (44)	Educational intervention	Psychiatry	Curriculum content based on participant feedback.	Better advocates for system change
Brauch, 2013, (37)	Qualitative study	First year resident	Preceptor feedback	Increasing comfort and understanding.
Ricardo Riveros, 2016, (42)	Randomized clinical trial.	Anesthesia residents	MSF	Multi-source feedback questionnaire to assess professionalism had good reliability and internal consistency.
Jha V, 2015, (46).	Mixed	Medical students	Model of the intercultural development continuum	Efficacy of professionalism
Ansari Ali, 2013, (47)	Cohort	Emergency physicians	MSF	MSF showed reliability, validity, and feasibility for professionalism feedback
Sarah Lerchenfeldt 2019, (38)	Systematic review	Articles published	Peer feedback	Effectiveness on professional behavior.

## Discussion

The results of the studies were placed in four categories: feedback techniques, feedback in curriculum, the scope of feedback, and feedback outcome.

### Feedback techniques

Most of the studies had chosen 360-degree for giving feedback on professionalism. Emphasis on the use of one single method does not seem to be effective enough. An effective and accurate approach would be the combination of several different approaches (49). With such an approach, students can have a more realistic view and reflect better on their behaviors (43). Thus, this might be one of the main reasons for the existing emphasis on 360-degree (MSF) feedback. Use of feedback from a variety of sources can help students gain new perspectives about themselves. Further, this approach can improve many aspects such as communication skills, interpersonal skills, professionalism, leadership, and social participation (38). There are some recommendations for improving the quality of the feedback. Feedback should be specific and should be usable quickly (50). It should be given in different settings in longitudinal and different forms (40). Use of role models along with feedback can foster the improvement process (43). For creating an atmosphere without unnecessary pressure, use a standardized patient is recommended. Feedback can be used as a factor for learning and personal development (49), and it can have a role in the personal development of the students in the curriculum (50). Therefore, it is recommended to follow the points mentioned, such as having multiple sources of feedback, attention to different professions in clinical setting, and applying the role model to design a guideline. It is also suggested that the practice of giving feedback in the field of professionalism should be considered in the form of general skills in medical education, and practical research should be done on this matter.

### Feedback in curriculum

In a study, feedback was an essential part of the curriculum (42). If feedback finds its way through the organizational culture, then it can become part of their curriculum (38). Personal development is one of the main goals of many medical curricula and such a goal is related to the use of feedback. People working in medical settings should be able to criticize themselves and their co-workers or the medical team members, and when such skills are lacking, constructive feedback is less likely to be given. Further, the ability to give and receive constructive feedback can lead to lower stress levels in workplaces such as clinical settings (52).

Thus, a standard curriculum should provide students with chances for participation in feedback processes and the educational environment should be designed according to this issue, so that the students and professors would be able to improve their functions and behaviors and have chances for personal reflection (38). In a standard curriculum, chances should exist for interactions between teachers and students. Students should be observed directly by their professors and receive instructions according to their functions as well as behaviors (51). According to Burgess et al. (2020), this curriculum should be able to familiarize students with the purpose and nature of various forms of providing feedback, to receive feedback from students and use them, have diverse activities, and challenge students to engage in new activities. (38).

Students and teachers need to develop qualified and improved relationships that are based on trust, which can be accomplished by a carefully designed and clarified curriculum. The difference between evaluation and feedback processes should be completely explained to students and faculty members. The curriculum should include opportunities to give and receive feedback and improve performance in professionalism without any scoring or grading for students (51). We suggest that the process of design, implementation, and assessment should be considered for giving feedback in professionalism in clinical education as in other courses. For this purpose, the best way is to integrate it longitudinally during internships.

### Scope of feedback

In most studies, feedback could be given as summative or formative (32, 38, 43) (most of which were formative) (34). The feedback which is given over time (formative) can improve the self-regulation and self-evaluation skills of the students. As a result, students can improve their cognitive and behavioral abilities through this type of feedback (48).

Creating a professional identity is a long-term process and requires time as well as attention. There also should be no contradictions in the formal, informal, and hidden curriculum (53). Some aspects of the curriculum which can support professional development are integrating identity creation into the school curriculum, engaging students in identity improvement plans, and creating a welcoming and supportive society. In addition to the mentioned issues, students should receive help and support in the entire process (54). Further, students should not face any contradiction in educational settings. Sometimes the student learns something and faces the opposite in the clinical setting. For example, a professor insists on interdisciplinary



health care but does not seem to consult with others while making clinical decisions. A doctor who teaches communication skills does not look at her patient during a visit. In short, it should be kept in mind that professionalism is not created instantly and requires time and effort from all disciplines (55).

As a way of perfectly approaching the considered goals of summative and formative feedback, students are urged to keep a portfolio, since this will allow them to monitor their progress and they will be able to evaluate the path they have taken. (40). Clinical settings are highly complicated and there is a possibility for clinical professors to be distracted from students while facing problems such as lack of time. Professors should pay close attention to the students' emotions. Because students are often so vulnerable, their emotions need to be considered carefully.

Paying attention to their emotions can also enhance their future performance through the hidden curriculum (56). Hidden curriculum is one of the most vital issues to be considered. Upon receiving wrong feedback, an honest and committed student may totally change to someone who is less likely to communicate, less compassionate, and far from the expected goals (57). Also, successful formative and summative evaluation needs to have educational effects. Educational effects encourage students to learn better. To achieve this goal, it is necessary to involve the student in the evaluation process. Also, peer evaluations in this process have a significant impact, especially for students who are friends and spend time together outside of class hours. In this way, they can see each other's behavior in clinical clerkships and give feedback to each other repeatedly over time. Of course, this method needs careful investigation and appropriate culture.

#### Feedback outcome

Finally, we review the outcomes of giving feedback in the field of professionalism in clinical education. According to the literature, feedback can increase learning about professionalism (31, 44), curriculum improvements (38), system support (42), student comfort (45), quality of professionalism evaluations (40, 45), and efficacy of professionalism (46). Meanwhile, there are some variables that are effective in conveying the feedback message among people, such as facial expression, and body postures, which have not been discussed enough in the literature (58). It can be concluded that all these consequences pass through the lens of professional identity. All of these goals are attained by creating a professional identity (59) and through long-term planning and education (60). Longitudinal terms, workshops, seminars,

in-service education, appropriate educational opportunities, and comprehensive planning are the best solutions for forming social identity. According to the long-term nature of the creation of professional skills, there is a need to frequent formative feedback. In order to achieve more outcomes, it is very effective to review feedback results and report them to students, teachers, and educational managers.

#### Knowledge gap

Feedback in medical education is one of the most important topics and fortunately there are several studies dealing with it. However, there are still some gaps in different parts for example goals of feedback on professionalism such as differences between formal and informal feedback, personal or group feedback, body postures, investigating brand new ways of giving feedback (61), and examining the factors affecting feedback (teacher, student, educational environment etc.) on professionalism, which can be investigated in future studies.

**Limitations:** The main limitation of our study was the 10-year (2012-2022) period of review of published articles, though it was sufficient to answer our research question.

#### Conclusion

The main tool used for feedback on professionalism was 360 degree (MSF) and the most popular form was informal - formative feedback. Since professionalism is a multidimensional concept related to personal communication, multi-source tools are mostly used in the literature. Forming professionalism is a time-consuming process and it takes numerous efforts over time.

Most of the time, feedback is provided in an informal form and through the hidden curriculum. Giving and receiving constructive principled feedback on professionalism requires planning in basic and clinical education in the formal, informal, and hidden curriculum.

**Acknowledgements:** We thank the researchers whose papers helped us answer our questions.

**Conflict of interests:** Noting

**Ethical approval:** Not applicable.

**Funding/Support:** None.

#### References

1. Cruess SR, Cruess RL, Steinert Y. Teaching professionalism across cultural and national borders: Lessons learned from an AMEE workshop. *Med Teach.* 2010;32(5):371-4. doi: 10.3109/01421591003692730. [PMID: 20423254]

2. Ong YT, Kow CS, Teo YH, Tan LHE, Abdurrahman ABHM, Quek NWS, et al. Nurturing professionalism in medical schools. A systematic scoping review of training curricula between 1990–2019. *Med Teach.* 2020 Jun;42(6):636–649. doi: 10.1080/0142159X.2020.1724921. [PMID: 32065016]
3. House JS. The three faces of social psychology. *Sociometry.* 1977; 40(2):161–77. doi:10.2307/3033519.
4. Goldie J. Assessment of professionalism: A consolidation of current thinking. *Med Teach.* 2013;35(2):e952–6. doi: 10.3109/0142159X.2012.714888. [PMID: 22938675]
5. Irby DM, Hamstra SJ. Parting the Clouds: Three Professionalism Frameworks in Medical Education. *Acad Med.* 2016 Dec;91(12):1606–1611. doi: 10.1097/ACM.0000000000001190. [PMID: 27119331]
6. Voigt-Barbarowicz M, Brütt AL. The Agreement between Patients' and Healthcare Professionals' Assessment of Patients' Health Literacy—A Systematic Review. *Int J Environ Res Public Health.* 2020 Mar 31;17(7):2372. doi: 10.3390/ijerph17072372. [PMID: 32244459] [PMCID: PMC7177784]
7. Berger AS, Niedra E, Brooks SG, Ahmed WS, Ginsburg S. Teaching Professionalism in Postgraduate Medical Education: A Systematic Review. *Acad Med.* 2020 Jun;95(6):938–946. doi: 10.1097/ACM.0000000000002987. [PMID: 31517687]
8. O'Sullivan H, Van Mook W, Fewtrell R, Wass V. Integrating professionalism into the curriculum: AMEE Guide No. 61. *Med Teach.* 2012;34(2):e64–77. doi: 10.3109/0142159X.2012.655610. [PMID: 22289014]
9. Berk RA. Using the 360° multisource feedback model to evaluate teaching and professionalism. *Med Teach.* 2009 Dec;31(12):1073–80. doi: 10.3109/01421590802572775. [PMID: 19995170]
10. Horsburgh J, Ippolito K. A skill to be worked at: using social learning theory to explore the process of learning from role models in clinical settings. *BMC Med Educ.* 2018 Jul 3;18(1):156. doi: 10.1186/s12909-018-1251-x. [PMID: 29970052] [PMCID: PMC6029173]
11. Liu HL, Wang TH, Lin HK, Lai CF, Huang YM. The Influence of Affective Feedback Adaptive Learning System on Learning Engagement and Self-Directed Learning. *Front Psychol.* 2022 Apr 27;13:858411. doi: 10.3389/fpsyg.2022.858411. [PMID: 35572271] [PMCID: PMC9094679]
12. Collins J. Professionalism and physician interactions with industry. *J Am Coll Radiol.* 2006 May;3(5):325–32. doi: 10.1016/j.jacr.2006.01.022. [PMID: 17412075]
13. Bombeke K, Symons L, Vermeire E, Debaene L, Schol S, De Winter B, et al. Patient-centredness from education to practice: The 'lived' impact of communication skills training. *Med Teach.* 2012;34(5):e338–48. doi: 10.3109/0142159X.2012.670320. [PMID: 22452275]
14. Weinstein DF. Feedback in Clinical Education: Untying the Gordian Knot. *Acad Med.* 2015 May;90(5):559–61. doi: 10.1097/ACM.0000000000000559. [PMID: 25406602]
15. Tuma F. Feedback in medical education. *Treasure Island (FL): StatPearls Publishing;* 2023 Jan.2022 Sep 26. [PMID: 31335031]
16. Ramani S, Könings KD, Ginsburg S, Van der Vleuten CP. Meaningful feedback through a sociocultural lens. *Med Teach.* 2019 Dec;41(12):1342–1352. doi: 10.1080/0142159X.2019.1656804. [PMID: 31550434]
17. Van der Kleij FM, Adie LE, Cumming JJ. A meta-review of the student role in feedback. *International Journal of Educational Research.* 2019;98:303–23.
18. Hall C, Peleva E, Vithlani RH, Shah S, Bashyam M, Ramadas M, et al. FEEDBK: a novel approach for providing feedback. *Clin Teach.* 2020 Feb;17(1):76–80. doi: 10.1111/tct.13026. [PMID: 31074179]
19. Tan A, Hudson A, Blake K. Adolescent narrative comments in assessing medical students. *Clin Teach.* 2018 Jun;15(3):245–251. doi: 10.1111/tct.12667. [PMID: 28612480]
20. Sebo P, Maisonneuve H, Fournier JP, Senn N, Haller DM. General practitioners' views and preferences about quality improvement feedback in preventive care: a cross-sectional study in Switzerland and France. *Implement Sci.* 2017 Jul 26;12(1):95. doi: 10.1186/s13012-017-0623-7. [PMID: 28747187] [PMCID: PMC5530524]
21. Vu JV, Harbaugh CM, De Roo AC, Biesterveld BE, Gauger PG, Dimick JB, et al. Leadership-Specific Feedback Practices in Surgical Residency: A Qualitative Study. *J Surg Educ.* 2020 Jan-Feb;77(1):45–53. doi: 10.1016/j.jsurg.2019.08.020. [PMID: 31492642] [PMCID: PMC6944744]
22. Moonaghi HK, Zardosht R, Razavi ME, Ahmady S. Perceived challenges by the Iranian Baccalaureate Surgical Technology students in their clinical education: A qualitative study. *Biosci Biotech Res Comm.* 2017;10(3):542–50. doi: 10.21786/bbrc/10.3/31.
23. Laura Watts, Tess Mcpherson, Joanna Robson, George Rawlings, Burge S. Patient experiences of participation in a medical student teaching workshop. *Med Teach.* 2015 Jan;37(1):94–6. doi: 10.3109/0142159X.2014.947946. [PMID: 25154410]
24. Saeidi M, Safaei A, Sadat Z, Abbasi P, Sarcheshmeh MSM, Dehghani F, Tahrekhani M, Abdi M. Prevalence of Depression, Anxiety and Stress Among Patients Discharged from Critical Care Units. *J Crit Care Med (Targu Mures).* 2021 May 12;7(2):113–22. doi: 10.2478/jccm-2021-0012. [PMID: 34722912] [PMCID: PMC8519366]
25. Abdi M, Jolfaei M, Ghasemi M, Dinmohammadi MR, Torkmandi H, Khademi E. Fazio-Londe Syndrome and Patient-centered Nursing Care: A Case Report. *Journal of Client-Centered Nursing Care.* 2020; 6(2):135–44. doi:10.32598/JCCNC.6.2.275.2.
26. Abdi M, Pourrahimi A, Yousefi K, Nouri Khaneghah Z, Rabie Siahkhalil S, Torkmandi H. A Preventive Approach to the Risk of Substance Abuse in Medical Personnel with Migraine: A Case Report. *Preventive Care in Nursing & Midwifery Journal.* 2019; 8(4):23–6. doi: 10.29252/pcnm.8.4.23.
27. Elliott BN. The teaching and evaluation of professionalism for DPT students during the clinical education experience. *Internet Journal of Allied Health Sciences and Practice.* 2020 Oct 12;18(4):11.
28. Keshmiri F, Farahmand S, Bahramnezhad F, Hossein-Nejad Nedaei H. Exploring the challenges of professional identity formation in clinical education environment: A qualitative study. *J Adv Med Educ Prof.* 2020 Jan;8(1):42–9. doi: 10.30476/jamp.2019.74806.0. [PMID: 32039272] [PMCID: PMC6946943]
29. Duijn CCMA, Dijk EJ, Mandoki M, Bok HGJ, Cate OTJT. Assessment Tools for Feedback and Entrustment Decisions in the Clinical Workplace: A Systematic Review. *J Vet Med Educ.* 2019;46(3):340–52. doi: 10.3138/jvme.0917-123r. [PMID: 31460844]
30. Grant MJ, Booth A. A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Info Libr J.* 2009 Jun;26(2):91–108. doi: 10.1111/j.1471-1842.2009.00848.x. [PMID: 19490148]
31. Klasen JM, Lingard LA. Allowing failure for educational purposes in postgraduate clinical training: a narrative review. *Med Teach.* 2019 Nov;41(11):1263–9. doi: 10.1080/0142159X.2019.1630728. [PMID: 31280625]
32. Ross S, Pirraglia C, Aquilina AM, Zulla R. Effective competency-based medical education requires learning environments that promote a mastery goal orientation: A narrative review. *Med Teach.* 2022 May;44(5):527–534. doi: 10.1080/0142159X.2021.2004307. [PMID: 34807798]
33. Martín-Martin A, Orduna-Malea E, Thelwall M, López-Cózar ED. Google Scholar, Web of Science, and Scopus: a systematic comparison of citations in 252 subject categories. *Journal of Informetrics.* 2018; 12(4): 1160–77. doi:10.1016/j.joi.2018.09.002.
34. Dhaliwal U, Singh S, Singh N. Reflective student narratives: honing professionalism and empathy. *Indian J Med Ethics.* 2018 Jan-Mar;3(1):9–15. doi: 10.20529/IJME.2017.069. [PMID: 28803221]



35. Faucett EA, McCrary HC, Barry JY, Saleh AA, Erman AB, Ishman SL. High-Quality Feedback Regarding Professionalism and Communication Skills in Otolaryngology Resident Education. *Otolaryngol Head Neck Surg.* 2018 Jan;158(1):36-42. doi: 10.1177/0194599817737758. [PMID: 29065274]
36. McQueen S, McKinnon V, VanderBeek L, McCarthy C, Sonnadara R. Video-Based Assessment in Surgical Education: A Scoping Review. *J Surg Educ.* 2019 Nov-Dec;76(6):1645-1654. doi: 10.1016/j.jsurg.2019.05.013. [PMID: 31175065]
37. Brauch RA, Goliath C, Patterson L, Sheers T, Haller N. A qualitative study of improving preceptor feedback delivery on professionalism to postgraduate year 1 residents through education, observation, and reflection. *Ochsner J.* 2013 Fall;13(3):322-6. [PMID: 24052760] [PMCID: PMC3776506]
38. Lerchenfeldt S, Mi M, Eng M. The utilization of peer feedback during collaborative learning in undergraduate medical education: a systematic review. *BMC Med Educ.* 2019 Aug 23;19(1):321. doi: 10.1186/s12909-019-1755-z. [PMID: 31443705] [PMCID: PMC6708197]
39. Hochberg M, Berman R, Ogilvie J, Yingling S, Lee S, Pusic M, et al. Midclerkship feedback in the surgical clerkship: the "Professionalism, Reporting, Interpreting, Managing, Educating, and Procedural Skills" application utilizing learner self-assessment. *Am J Surg.* 2017 Feb;213(2):212-6. doi: 10.1016/j.amjsurg.2016.08.001. [PMID: 27756451]
40. Mueller PS. Teaching and assessing professionalism in medical learners and practicing physicians. *Rambam Maimonides Med J.* 2015 Apr 29;6(2):e0011. doi: 10.5041/RMMJ.10195. [PMID: 25973263] [PMCID: PMC4422450]
41. Zhao Y, Zhang X, Chang Q, Sun B. Psychometric Characteristics of the 360° Feedback Scales in Professionalism and Interpersonal and Communication Skills Assessment of Surgery Residents in China. *J Surg Educ.* 2013 Sep-Oct;70(5):628-35. doi: 10.1016/j.jsurg.2013.04.004. [PMID: 24016374]
42. Riveros R, Kimatian S, Castro P, Dhumak V, Honar H, Mascha EJ, et al. Multisource feedback in professionalism for anesthesia residents. *J Clin Anesth.* 2016 Nov;34:32-40. doi: 10.1016/j.jclinane.2016.03.038. [PMID: 27687342]
43. Hoffman LA, Shew RL, Vu TR, Brokaw JJ, Frankel RM. The Association Between Peer and Self-Assessments and Professionalism Lapses Among Medical Students. *Eval Health Prof.* 2017 Jun;40(2):219-243. doi: 10.1177/0163278717702191. [PMID: 28705026]
44. Freudenreich O, Kontos N. "Professionalism, Physicianhood, and Psychiatric Practice": Conceptualizing and Implementing a Senior Psychiatry Resident Seminar in Reflective and Inspired Doctoring. *Psychosomatics.* 2019 May-Jun;60(3):246-54. doi: 10.1016/j.psych.2018.12.005. [PMID: 30626491]
45. Smith KJ, Farland MZ, Edwards M, Buring S, Childs GS, Dunleavy K, et al. Assessing professionalism in health profession degree programs: A scoping review. *Curr Pharm Teach Learn.* 2021 Aug;13(8):1078-1098. doi: 10.1016/j.cptl.2021.06.006. [PMID: 34294251]
46. Jha V, Mclean M, Gibbs TJ, Sandars J. Medical professionalism across cultures: a challenge for medicine and medical education. *Med Teach.* 2015 Jan;37(1):74-80. doi: 10.3109/0142159X.2014.920492. [PMID: 25073712]
47. Al Khalifa K, Al Ansari A, Violato C, Donnon T. Multisource feedback to assess surgical practice: a systematic review. *J Surg Educ.* 2013 Jul-Aug;70(4):475-86. doi: 10.1016/j.jsurg.2013.02.002. [PMID: 23725935]
48. Mitchell JD, Ku C, Diachun CAB, DiLorenzo A, Lee DE, Karan S, et al. Enhancing Feedback on Professionalism and Communication Skills in Anesthesia Residency Programs. *Anesth Analg.* 2017 Aug;125(2):620-31. doi: 10.1213/ANE.0000000000002143. [PMID: 28598926]
49. Perkins SQ, Dabaja A, Atiemo H. Best Approaches to Evaluation and Feedback in Post-Graduate Medical Education. *Curr Urol Rep.* 2020 Aug 13;21(10):36. doi: 10.1007/s11934-020-00991-2. [PMID: 32789759]
50. Cobbald C, Wright L. Use of Formative Feedback to Enhance Summative Performance. *Anatolian Journal of Education.* 2021;6(1):109-16. doi:10.29333/aje.2021.619a.
51. Watling CJ, Ginsburg S. Assessment, feedback and the alchemy of learning. *Med Educ.* 2019 Jan;53(1):76-85. doi: 10.1111/medu.13645. [PMID: 30073692]
52. Burgess A, Van Diggele C, Roberts C, Mellis C. Feedback in the clinical setting. *BMC Med Educ.* 2020 Dec 3;20(Suppl 2):460. doi: 10.1186/s12909-020-02280-5. [PMID: 33272265] [PMCID: PMC7712594]
53. Silveira GL, Campos LK, Schweller M, Turato ER, Helmich E, de Carvalho-Filho MA. "Speed up"! The influences of the hidden curriculum on the professional identity development of medical students. *Health Professions Education.* 2019;5(3):198-209. doi:10.1016/j.hpe.2018.07.003.
54. Cruess SR, Cruess RL, Steinert Y. Supporting the development of a professional identity: general principles. *Med Teach.* 2019 Jun;41(6):641-649. doi: 10.1080/0142159X.2018.1536260. [PMID: 30739517]
55. Stetson GV, Kryzhanovskaya IV, Lomen-Hoerth C, Hauer KE. Professional identity formation in disorienting times. *Med Educ.* 2020 Aug; 54(8): 765-6. doi: 10.1111/medu.14202. [PMCID: PMC7267337] [PMID: 32344447]
56. Wear D, Bickel J. Educating for professionalism: Creating a culture of humanism in medical education. Iowa, United States: University of Iowa Press; 2009. doi:10.2307/j.ctt20q1ws6.
57. Hilton S, Southgate L. Professionalism in medical education. *Teaching and Teacher Education.* 2007;23(3):265-79. doi:10.1016/j.tate.2006.12.024.
58. Wu J, Hagiya T, Tang Y, Hoashi K. Effects of objective feedback of facial expression recognition during video support chat. *Proceedings of the 16th International Conference on Mobile and Ubiquitous Multimedia;* 2017 Nov 26-29; Geneva, Stuttgart Germany. 2017: 293-7. doi:10.1145/3152832.3152848.
59. Iserson KV. Talking About Professionalism Through the Lens of Professional Identity. *AEM Educ Train.* 2018 Dec 4;3(1):105-112. doi: 10.1002/aet2.10307. [PMID: 30680357] [PMCID: PMC6339534]
60. Marcotte LM, Moriates C, Wolfson DB, Frankel RM. Professionalism as the Bedrock of High-Value Care. *Acad Med.* 2020 Jun;95(6):864-867. doi: 10.1097/ACM.0000000000002858. [PMID: 31274519]
61. Mahoney P, Macfarlane S, Ajjawi R. A qualitative synthesis of video feedback in higher education. *Teaching in Higher Education.* 2019;24(2):157-79. doi:10.1080/13562517.2018.1471457.