

Supplemental Digital Appendix 1

Items on the Dutch Residency Educational Climate Test (D-RECT) (Responses on a Five-point Likert Scale)

Educational atmosphere

1. Continuity of care is not affected by differences of opinion between attendings.
2. Differences of opinion between attendings about patient management are discussed in such a manner that is instructive to others present.
3. Differences of opinion are not such that they have a negative impact on the work climate.
4. There is (are) NO attending physician(s) who have a negative impact on the educational climate.
5. My attendings treat me with respect.

Teamwork

6. Attendings, nursing staff, other allied health professionals and residents work together as a team.
7. Nursing staff and other allied health professionals make a positive contribution to my training.
8. Nursing staff and other allied health professionals are willing to reflect with me on the delivery of patient care.

Role of specialty tutor

9. The specialty tutor monitors the progress of my training.
10. The specialty tutor provides guidance to other attendings when needed.
11. The specialty tutor is actively involved in improving the quality of education and training.
12. In this rotation evaluations are useful discussions about my performance.
13. My plans for the future are part of the discussion.
14. During evaluations, input from several attendings is considered.

Coaching and assessment

15. My attendings take the initiative to evaluate my performance.
16. My attendings take the initiative to evaluate difficult situations I have been involved in.
17. My attendings evaluate whether my performance in patient care is commensurate with my level of training
18. My attendings occasionally observe me taking a history.
19. My attendings assess not only my medical expertise but also other skills such as teamwork, organization or professional behavior.
20. My attendings give regular feedback on my strengths and weaknesses

Formal education

21. Residents are generally able to attend scheduled educational activities.
22. Educational activities take place as scheduled.
23. Attendings contribute actively to the delivery of high-quality formal education.

24. Formal education and training activities are appropriate to my needs.

Resident peer collaboration

25. Residents work well together.

26. Residents, as a group, make sure the day's work gets done.

27. Within our group of residents it is easy to find someone to cover or exchange a call.

Work is adapted to residents' competence

28. The work I am doing is commensurate with my level of experience.

29. The work I am doing suits my learning objectives at this stage of my training.

30. It is possible to do follow up with patients.

Accessibility of supervisors

31. When I need an attending, I can always contact one.

32. When I need to consult an attending, they are readily available.

33. It is clear which attending supervises me.

Patient sign-out

34. Sign-out is used as a teaching opportunity.

35. Attendings encourage residents to join in the discussion during sign-out.

Supplemental Digital Appendix 2

Items and Subscales on a Shortened Version of the Consumer Quality Index (CQI)

Inpatient Hospital Care Questionnaire

Subscale	Item no.	Description	Response categories
Admission		Were the following items discussed with you on your admission to the hospital?	
	4a	Your rights as patient (complaint procedure, etc.)	No; Yes; Do not remember
	4b	What will happen during this hospitalization	Ditto
	4c	A card or film on patient safety	Ditto
	4d	The person in the hospital whom you can contact if you have questions	Ditto
	4e	What medications you are taking	Ditto
	4f	If you would like to be resuscitated	Ditto
	4g	Any dietary and nutritional requirements	Ditto
	4h	Any hypersensitivity to substances/medication	Ditto
	4i	Your provisional discharge date	Ditto
	4j	Your personal needs during the hospitalization	Ditto
Communication with nurses	6	Did the nurses listen carefully to you?	Never; Sometimes; Mostly; Always
	7	Did the nurses have enough time for you?	Ditto
	8	Did the nurses explain things to you in an understandable way?	Ditto
Communication with doctors	9	Did the doctors have enough time for you?	Ditto
	10	Did the doctors explain things to you in an understandable way?	Ditto
Patient's contribution	13	Did you have enough privacy during your personal care?	Ditto
	14	Could receive visitors at times that you wanted?	Ditto

	15	Could you retire to a quiet place if you wanted to?	Ditto
	17	Could you eat at the times that you wanted to?	Ditto
	25	During admission to the hospital how often did you have a say in matters that were important to you?	Ditto
Explanation of treatment	18	Did the doctors or nurses tell you beforehand why the treatment, examination or intervention was needed?	Ditto
	19	Did the doctors or nurses tell you beforehand what the treatment, examination or intervention was?	Ditto
	20	Did the doctors or nurses explain to you in an understandable way about any possible side effects or consequences of a treatment, examination or intervention?	Ditto
Pain management	21	Did the staff at the hospital react quickly when you indicated you had pain?	Never; Sometimes; Mostly; Always; Not applicable, I never indicated to have had pain → go to question 23
	22	Was your pain well controlled?	Never; Sometimes; Mostly; Always
Communication about medication	23	Before you received a new medication or before your medication was changed, did you get an explanation of what was the purpose of the new medication?	Never; Sometimes; Mostly; Always; Not applicable, I do not use any medications → go to question 25
	24	Before you received a new medication or before your medication was changed, did you	Never; Sometimes; Mostly;

		get an explanation of the possible complications in an understandable way?	Always
Feeling of safety	27	When medication was provided, did staff check whether the medication was intended for you, for example by asking your name or checking your wristband?	Never; Sometimes; Mostly; Always; I do not know (any more); Not applicable, I did not use any medications
	28	Before a treatment, examination, or intervention began, did staff check that you were the right person, for example by asking your date of birth?	Never; Sometimes; Mostly; Always; I do not know (any more)
	29	Did the staff of the hospital pay enough attention to unsafe situations?	Never; Sometimes; Mostly; Always;
Discharge information	30	Upon discharge from the hospital, did you receive written and verbal information about the use of new medications in combination with medication that you were already using?	No; Yes; I do not know (any more); Not applicable, I did not use any medications before my hospitalization
	31	Upon discharge from the hospital, did you receive information about submitting any complaints or health problems that you were supposed to be on the lookout for?	No; Yes; I do not know (any more)
	32	Upon discharge from the hospital, did you receive information about which activities you could or could not do?	No; Yes; I do not know (any more)

33	Before you were discharged from the hospital, did you speak to the hospital staff about the help you might need after your discharge?	No; Yes; I do not know (any more)
34	Upon discharge from the hospital, did you get information about what to do if problems occurred after your discharge?	No; Yes; I do not know (any more)

Supplemental Digital Appendix 3

Adjusted Unstandardized Regression Coefficients Calculated Using Mean Scores for the Association Between Residency Learning Climate and Inpatient Care Experience, 2013-2014^a

	Residency learning climate subscales									
	Overall learning climate (1-5)	Peer collaboration (1-5)	Patient sign-out (1-5)	Educational atmosphere (1-5)	Teamwork (1-5)	Coaching and assessment (1-5)	Formal education (1-5)	Role of specialty tutor (1-5)	Adaptation of work to residents' competence (1-5)	Accessibility of supervision (1-5)
Inpatient care experience subscales										
Admission (0-1)	0.02	0.03	0.02	-0.02	-0.02	0.06	-0.01	0.04	-0.04	-0.07
Communication with nurses (1-4)	0.01	0.06	0.009	0.02	-0.003	0.09	-0.08	-0.03	0.06	-0.07
Communication with doctors (1-4)	0.11 ^b	0.005	0.02	-0.04	-0.08	0.22 ^b	-0.02	-0.01	0.06	-0.12
Patient's contribution (1-4)	0.02	0.10	0.11	-0.02	-0.003	0.23	-0.11	-0.23	-0.04	-0.13
Explanation of treatment (1-4)	0.07	0.14	0.01	-0.02	-0.13	0.22 ^b	-0.09	0.04	-0.05	-0.13
Pain management (1-4)	-0.003	0.14 ^b	0.07	-0.07	0.001	0.07	-0.16 ^b	0.06	0.04	-0.04
Communication about medications (1-4)	0.10	0.05	0.06	0.08	-0.19	0.12	-0.03	-0.25	0.16	-0.36
Feeling of safety (1-4)	0.09 ^b	0.07	0.05	-0.04	-0.08	0.08	-0.08	-0.003	0.002	0.07
Information at discharge (0-1)	0.04	0.04	0.04	-0.03	-0.04	0.07	-0.06	0.09	-0.03	-0.01

Overall rating of the department (1-10)	0.03	0.14	0.09	-0.10	0.26	0.26	-0.27	-0.18	0.19	-0.27
---	------	------	------	-------	------	------	-------	-------	------	-------

^aCoefficients adjusted for patient's age, sex, education, general physical health, psychological health, non-Dutch birth, number of admissions in the previous 12 months, help provided in filling out the questionnaire, the number of previous Dutch Residency Educational Test (D-RECT) evaluations as well as gender mix of respondents on D-RECT, and year.

^bIndicates $P < .05$, including False Discovery Rate (FDR) correction for multiple comparisons.

Supplemental Digital Appendix 4

Adjusted Unstandardized Regression Coefficients Included in a Sensitivity Analysis Using Bartlett Factor Scores of the Association Between Residency Learning Climate and Inpatient Care Experience, 2013-2014^a

	Residency learning climate subscales									
	Overall learning climate (1-5)	Peer collaboration (1-5)	Patient sign-out (1-5)	Educational atmosphere (1-5)	Teamwork (1-5)	Coaching and assessment (1-5)	Formal education (1-5)	Role of specialty tutor (1-5)	Adaptation of work to residents' competence (1-5)	Accessibility of supervision (1-5)
Inpatient care experience subscales										
Admission (0-1)	0.09	0.10	0.10	-0.09	-0.13	0.27	-0.04	0.14	-0.19	-0.27
Communication with nurses (1-4)	0.02	0.09	0.02	0.02	-0.004	0.13	-0.13	-0.05	0.09	-0.11
Communication with doctors (1-4)	0.15 ^b	0.007	0.03	-0.06	-0.11	0.30 ^b	-0.03	-0.02	0.08	-0.17
Patient's contribution (1-4)	0.03	0.12	0.16	-0.02	-0.007	0.33	-0.16	-0.32	-0.06	-0.18
Explanation of treatment (1-4)	0.09	0.20	0.01	-0.03	-0.18	0.32 ^b	-0.12	0.06	-0.08	-0.18
Pain management (1-4)	-0.004	0.21 ^b	0.10	-0.11	0.002	0.11	-0.23 ^b	0.10	0.06	-0.07
Communication about medications (1-4)	0.10	0.06	0.06	0.09	-0.19	0.12	-0.04	-0.25	0.15	-0.37
Feeling of safety (1-4)	0.13 ^b	0.11	0.08	-0.07	-0.12	0.13	-0.13	0.02	-0.01	0.11
Information at discharge (0-1)	0.11	0.11	0.13	-0.12	-0.11	0.24	-0.20	0.28	-0.07	-0.04

^aCoefficients adjusted for patient's age, sex, education, general physical health, psychological health, non-Dutch birth, number of admissions in the previous 12 months, help provided in filling out the questionnaire, the number of previous D-RECT evaluations, gender mix of respondents on D-RECT, and year.

^bIndicates $P < .05$, including False Discovery Rate (FDR) correction for multiple comparisons.