The Nursing Clinical Teacher Effectiveness Inventory (NCTEI)

The Nursing Clinical Teacher Effectiveness Inventory (NCTEI) was developed as a survey tool for nursing students, graduates and faculty to rate the characteristics of the best and worst clinical teacher behaviour that they had experienced. The tool was used in the following article. The NCTEI survey instrument and the Reliability Data for it are included here as an Appendix.

Abstract
This study compared the importance of five categories of clinical teacher behaviours as perceived by university nursing faculty, students and practising baccalaureate graduates. A survey tool, developed for this study, contained 47 items; each item describing a clinical teacher behaviour. Participants were asked to rate the importance of each item on a seven-point Likert-type scale. Results showed similar perceptions of the importance of clinical teacher behaviours between the three groups of participants. However, significant differences were found between all groups when the perceptions of students in each of the 4 years of the nursing programme, faculty and graduates were compared. These results indicate a greater variability among students than between students, faculty and practising baccalaureate graduates. The importance of this study lies not only in the perceptions of the three groups and the questions this raises, but also in the conflicting findings between this and other studies[1].
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Appendix: NCTEI survey instrument; NCTEI reliability and validity

<u>NCTEI Survey Instrument: Best Clinical Teacher</u>

DIRECTIONS Picture the best clinical teacher you have ever had. Think back specifically what his person did to make him/her the best clinical teacher. For each statement circle the number whish indicates how descriptive the behaviour is of this individual
For Worst Clinical teacher change best to worst

Teaching Behaviours	Not at all Descriptive						Very Descriptive
<u>Teaching Ability</u>	1	2	3	4	5	6	7
1. Explains clearly	1	2	3	4	5	6	7
2. Emphasizes what is important	1	2	3	4	5	6	7
3. Stimulates student interest in the subject	1	2	3	4	5	6	7
4. Remains accessible to students	1	2	3	4	5	6	7
5. Demonstrates clinical procedures and techniques	1	2	3	4	5	6	7
6. Guides students' development of clinical skills	1	2	3	4	5	6	7
7. Provides specific practise opportunity	1	2	3	4	5	6	7
8. Offers special help when difficulties arise	1	2	3	4	5	6	7
9. Is well prepared for teaching	1	2	3	4	5	6	7
10. Enjoys teaching	1	2	3	4	5	6	7
11. Encourages active participation in discussion	1	2	3	4	5	6	7
12. Gears instruction to students level of readiness	1	2	3	4	5	6	7
13. Quickly grasps what students are asking or telling	1	2	3	4	5	6	7
14. Answers carefully and precisely questions raised by students	1	2	3	4	5	6	7
15. Questions students to elicit underlying reasoning	1	2	3	4	5	6	7
16. Helps students organize their thoughts about patient problems	1	2	3	4	5	6	7
17. Promotes student independence	1	2	3	4	5	6	7
<u>Nursing Competence</u>	1	2	3	4	5	6	7
18. Demonstrates clinical skill and judgment	1	2	3	4	5	6	7
19. Demonstrates communication skills	1	2	3	4	5	6	7
20. Reveals broad reading in his/her area of interest	1	2	3	4	5	6	7
21. Discusses current development in his/her field	1	2	3	4	5	6	7
22. Directs students to useful literature in nursing	1	2	3	4	5	6	7
23. Demonstrates a breadth of knowledge in nursing	1	2	3	4	5	6	7
24. Recognizes own limitations	1	2	3	4	5	6	7
25. Takes responsibility of own actions	1	2	3	4	5	6	7

26.	Is a good role model	1	2	3	4	5	6	7

<u>Evaluation</u>

	Evaluation	1	2	3	4	5	6	7
27.	Makes specific suggestions for improvement	1	2	3	4	5	6	7
28.	Provides frequent feedback on students' performance	1	2	3	4	5	6	7
29.	Identifies students' strengths and limitations objectively	1	2	3	4	5	6	7
30.	Observes students' performance frequently	1	2	3	4	5	6	7
31.	Communicates expectations of students	1	2	3	4	5	6	7
32.	Gives students positive reinforcement for good contributions, observations or performance	1	2	3	4	5	6	7
33.	Corrects students' mistakes without belittling them	1	2	3	4	5	6	7
34.	Does not criticize students in front of others	1	2	3	4	5	6	7

<u>Interpersonal Relations</u>

	Interpersonal Relations	1	2	3	4	5	6	7
35.	Provides support and encouragement to students	1	2	3	4	5	6	7
36.	Is approachable	1	2	3	4	5	6	7
37.	Encourages a climate of mutual respect	1	2	3	4	5	6	7
38.	Listens attentively	1	2	3	4	5	6	7
39.	Shows a personal interest in students	1	2	3	4	5	6	7
40.	Demonstrates empathy	1	2	3	4	5	6	7

<u>Personality</u>

	Personality	1	2	3	4	5	6	7
41.	Demonstrates enthusiasm	1	2	3	4	5	6	7
42.	Is a dynamic and energetic person	1	2	3	4	5	6	7
43.	Self -confidence	1	2	3	4	5	6	7
44.	Is self-critical	1	2	3	4	5	6	7
45.	Is open-minded and non-judgemental	1	2	3	4	5	6	7
46.	Has a good sense of humour	1	2	3	4	5	6	7
47.	Appeasers [Appears] organized	1	2	3	4	5	6	7

NCTEI Reliability and Validity

Instrument Development

To test the questions of this study, a 47 item survey instrument was developed. The items, divided into five categories, evolved from a former study eliciting students' perceptions of clinical teacher effectiveness (Mogan & Knox, 1983) and from an extensive review of the literature, especially Irby (1977). The respondents were asked to rate each item on a 7 point Likert-type scale. Two other responses were also incorporated into the instrument: don't know and non-applicable. Space was provided for remarks for each item.

Reliability

According to Nunnally (1978), the major source of measurement error is likely to be content sampling. Therefore, he advocates obtaining co-efficient alpha's before other types of reliability estimates are conducted (p.230). The subprogram reliability in the SPSS system was used for this purpose. This program is designed to evaluate the reliability of multiple item additive scales by computation of co-efficients of reliability (Nie, Hull, Jenkins, Steinbrenner, & Bent 1975). Reliability estimates were established for each of the five categories of teacher characteristics with reliability coefficients $\infty= .89$ for Teaching, $\infty= .84$ for Nursing Competence, $\infty= .82$ for Evaluation, $\infty= .86$ for Interpersonal Relationship, and $\infty= .83$ for Personality. Reliability of each item was also estimated with reliability co-efficients ranging from $\infty= .79$ for item 42 (is a dynamic and energetic person), to $\infty= .88$ for item #2 (Emphasizes what is important).

Test - Retest Reliability

The questionnaire was submitted to 69 3rd year generic students in a baccalaureate program in nursing. Four weeks later, the same group was asked to complete the questionnaire again. T o assure anonymity, the students were not identified. Therefore group means for each of the five categories were compared using t-tests. The results showed no significant difference between first and second testing. Probability ranged from p = =.5 to p = .9. These results are well within the range of accepted reliability (see Table 2).

Validity

The ultimate purpose of this instrument is to measure clinical teacher effectiveness. Absolute validity of such an instrument is difficult to assess in view of the lack of clear definition of effective leaching and an even more nebulous concept regarding effective clinical teaching. In view of this limitation validity was assessed in the following way.

Content validity "is the representativeness or sampling adequacy of the content . . . of a measuring instrument" (Kerlinger, 1973, p. 458). Adequacy and representativeness of content can be assumed to be met in two ways.

Table 2

Test - Retest Reliability

Category		M		SD	MODE	MEDIAN	Variance	t	df	P
Teaching	*	93.9	±	11.94	99	95.8	142.6	.07	129	.94
	**	93.8	±	10.3	92	95.6	106.9			
Nursing Competence	*	52.9	±	7.4	57	53.8	55.4	.34	139	.74
	**	52.5	±	6.4	52	52.4	40.9			
Evaluations	*	61.4	±	6.2	56	52.8	38.1	-.08	140	.94
	**	51.5	±	5.1	51	52.2	25.9			
Relationship	*	36.6	±	4.9	42	37.1	24.1	-.66	140	.51
	**	37.2	±	4.6	42	38.2	21			
Personality	*	39.9	±	6.6	41	41.1	43.1	-.46	134	.65
	**	40.4	±	5.1	41	40.0	26			

*   first questionnaire
**   second questionnaire

    1) Items of the tool evolved from student descriptions of effective and ineffective teaching behaviours (Mogan & Know, 1983) and from the literature. For each teacher behaviour described by students, corresponding traits were found in the literature. Conversely, for every behaviour described in the literature, similar traits were mentioned by students.
    2)   The importance of items was determined by all groups generally involved in teacher evaluation (Seldin, 1980): students, peers, and graduates (administrators were included in the faculty group in view of the small number and the dual role or administrator-teacher they play in our school). All items were high rated by the entire group of faculty, students and graduate $\underline{x}$ = 269.7 or 82% of a possible score of 329. Mean rating per item was 6.33 of a possible rating of 7.

Furthermore, although some items were added in the "remarks" column, only two items were mentioned by several respondents and were added to the evaluation instrument. It can thus be assumed that no teaching behaviour of major importance was omitted.

Face validity "is the appeal of the instrument to potential users" (Nunnally, 1978, p. 111) and can be assumed in view of the positive comment received from respondents. For example: "Relevant, appropriate questions!", "All these things are very important", "Your list was very well compiled and very organized".