Development of a Tool to Assess the Nursing Students’ Perception Regarding Characteristics of Nursing Teachers as their Role Model

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Abstract
Education is a bipolar process. It combines the educated with the educator, the immature with the mature, the learner with the learned, or the pupil with the teacher. The personality of the educator modifies the personality of the educated. The purpose of this study was to develop and validate a tool to assess nursing students’ perception regarding characteristics of nursing teachers as their role model. A Modified Delphi technique was opted for the development of Nursing Students’ Perception Tool. Total four Delphi rounds were carried out with experts for the finalization of Nursing Students’ Perception Tool. Self-structured Nursing Students’ Perception Tool was administered to 100 B.Sc. nursing Ist Year students who were studying in selected nursing institutions of Punjab by using multi stage sampling technique. Reliability of tool was ensured by internal consistency. Value of Cronbach’s (Unstandardized) and Split half was 0.93. The Nursing Students’ Perception Tool was found to be statistically highly reliable and feasible. Most of (81%) nursing students perceived that it is very important for a nursing teacher to have a good personal quality and thorough knowledge. Whereas only 15% of students from selected Nursing Institutions of Punjab believed that these characteristics should be essential for nursing teachers to become a role model and few (4%) of them was in favor that their role model needs to possess personal qualities, knowledge, teaching, interpersonal and evaluation skills as well as clinical competencies. The students have identified their role model as knowledgeable, skilled teacher, clinically competent and a best evaluator.

Keywords: Nursing Students’, Perception, Nursing Teachers, Role Model

Introduction
Education is a bipolar process. It combines the educated with the educator, the immature with the mature, the learner with the learned, or the pupil with the teacher. The personality of the educator modifies the personality of the educated. In the bipolar process of education, the teacher is the former pole, the pupil is the opposite pole, knowledge emanating from the teacher to the pupil, connects the two and the instrument is the mutual discussion. Education consists of leading out the innate knowledge, virtue and powers of the students; making the students’ potential actual. It helps the students’ in the development of valuable personality and spiritual individuality. The aim of nursing education is to develop student nurses at personal and professional levels (Ross).

To become a role model for nursing students’, nursing teacher is required to have characteristics such as knowledge and experience, instructional skills, clinical competency, teaching skills, evaluation and inte-
It is believed that a good teacher banks heavily as being a value oriented affiliated person besides having knowledge. Hence, role model entails the situational use of personal characteristics, principles and skills that a nursing teacher should possess. (Mohan V)

Therefore, students are the direct observers of the teaching process and perceive that nursing teacher would be a guide and director, who steers the boat but the energy that propels it must come from those who are learning. Proficient nursing teacher helps in inculcating values and desirable competencies among student teachers. So, a teacher serves as a shower that transforms even a Wasteland into a Greenland.

In 2012, Patil G.N, K. Angel, Anju et al. the nursing teachers’ caring behaviour in clinical teaching as perceived by nursing students was at a high level in the categories of competence (mean=4.06, SD=.75), confidence (mean=4.02, SD= 0.69), conscience (mean= 4.22, SD=0.66) and commitment (mean=4.09, SD= 0.57) and compassion (mean= 3.65, SD= 0.62). It was suggested that nursing teachers should be aware of caring behaviours in the clinical teaching learning process for all levels of students.

Gupta JV, Walia I, Das K et al. opined that the majority of students perceived that knowledgeable, skilled and clinically oriented teachers can supervise the students in better way and they ranked this element of supervision at the top reported in 2006. (5)

In 2009 the nursing students rated the professional competence of the clinical teacher as the most important characteristic, which when compared to the Western population was different. When male and female nursing students’ perceptions were compared, no significant differences were found. However, responses of nursing students from the three academic years differed significantly in that second-year students rated the clinical teachers’ relationship with students as most important and fourth-year students rated personal qualities of the clinical teachers as most important. (Violeta L.N, Violet N, Muna A.N)

Nursing students perceive those nursing teachers as their role model who entail appropriate professional attributes, knowledge, good communication skills and the motivation to teach and support students. (Davis R.)

Students’ perceptions are important in determining the criteria they use to judge teachers’ performance. Students’ ratings have been praised as being valid but also criticized as being insensitive and misleading. However, it is important to understand that students’ ratings should be used to improve the quality of nursing education and not only as a single measure of teaching ability. (Nehring v)

A number of studies undertaken on identifying the characteristics of nursing educators based on perception of nursing students in developed countries but in Indian scenario, reviewed literature lacks studies on this issue. Moreover, knowing the characteristics of excellent role model can help nurse educators to evaluate the teaching skills of their nurse educators and also to plan out the strategies accordingly. To date, there has been a lack of valid instruments in India, to assess perception of nursing students regarding the characteristics of nursing teachers as their role model. (Gupta JV, Walia I, Das K)

This study has been planned to develop a short, comprehensive, valid, and reliable scale compatible with today’s conditions to identify students’ perception regarding characteristics of nursing teachers as their role model.
Methods
Design and sample
A Methodological research design (Modified Delphi Technique) was adopted to develop a tool to assess nursing students’ perception regarding characteristics of nursing teachers as their role model. A total sample of 100 nursing students was selected & Multi stage sampling technique was employed to collect data by taking a series of simple random samples in three stages from selected Nursing Institutions of Punjab.

Ethical considerations
Ethical consideration was ensured following the Ethical Clearance Committee (Desh Bhagat University, Mandi Gobindgarh). Along with that, Institutional Ethical Review Committee (of data collection site) was accessed and written approval was obtained from selected nursing institutions of Punjab for research. During collection of data, students were informed about the purpose of the study and information confidentiality, and data were collected with their consent.

Measurements
It was prepared in concordance with the objectives of the research study to assess nursing students’ perception regarding characteristics of nursing teachers as their role model. The tool development was divided into four phases with different steps.

PHASE-I- Preliminary Preparation of Nursing Students’ Perception Tool
It further included 3 steps. In step-1, literature was reviewed related to perception of nursing students regarding the characteristics of nursing teachers as their role model. In step-2, related content was analyzed and various related aspects were pooled together. In step-3, first draft was prepared and total 64 items were categorized under 6 subheadings: Teaching Skills, Nursing Competencies, Evaluation Procedures, Interpersonal Skills, Knowledge and Experience and Personality.

PHASE- II- Validation Phase of First Draft and Subsequent Drafts
It constituted 3 steps. In step-1, panel was selected comprising of 11 experts from the field of Nursing, Psychology, Psychiatry (Mental Health Nursing), Education and Biostatistics. The first draft of tool was circulated among 11 experts from above stated fields. In step-2, the modified Delphi technique was used to validate the draft. All the panelists were requested to give their valuable suggestions pertaining to the content, accuracy of information, the item order i.e. organization and sequence of the items. The suggestions given by panelists were incorporated to generate the second draft of the tool. Changes were also made in the sequence of items as the experts’ opinion. After second Delphi survey, NSPT was prepared and now total 50 items were categorized under 6 subheadings: Personal Qualities, Knowledge and Teaching Skills, Clinical Competencies, Interpersonal Skills and Evaluation Procedure. After first try out, it was found that Nursing Students’ Perception Tool –II needs further refinement to formulate next draft after subsequent Delphi rounds. Those items were either deleted or modified who were having item to total correlation less than 0.2 (The optimal value for item to total correlation should be at least 0.2-0.8), as well as shows incompatibility with the overall tool. In step-3, as per the experts’ opinions and after first try out the modifications in the Nursing Students’ Perception Tool-II were made to further refine Nursing Students’ Perception tool and to get newly formulated Nursing Students’ Perception Tool- III.
Phase – III - Second Try Out

Cronbach’s alpha (unstandardized) was used to check the reliability of Nursing Students’ Perception Tool-III. After first try out, now there were total 44 items in the tool. It was observed that out of 44 items, 4 items were having item to total correlation less than 0.2. These items were deleted as it shown incompatibility with the overall tool.

PHASE IV - Testing Feasibility and Reliability of Preliminary draft of Tool (Pilot Study)

In step-1, Draft prepared after the fourth Delphi round includes total 40 items in Nursing Students’ Perception Tool. Pilot study was conducted to test the feasibility and reliability of preliminary draft of Nursing Students’ Perception Tool-IV. In step-2, The overall Cronbach’s alpha coefficient of present tool was 0.93 which indicated high reliability and internal consistency of tool. (Ideally Cronbach’s alpha coefficient should be >0.70). Corrected item correlation was applied on 40 items of tool, it showed that 39 items of tool had item score correlation between 0.2-0.8 (The optimal value for item to total correlation should be at least 0.2-0.8) whereas 1 item from personal qualities area, i.e. item no. 7 (possess leadership qualities) had shown item score to total score correlation > 0.2, showing their incompatibility with the overall tool.
same which indicated all of these 39 items were contributing in the tool. In spite of deleting item having item to total correlation less than 0.2, the value of Cronbach’s alpha did not increase. This indicated that all the 39 items were contributing for the reliability of the tool. It means tool was internally consistent by taking all 39 items. It was observed that one item, i.e. item no. 7 (possess leadership qualities) under personal qualities area did not show increase in the value of Cronbach’s alpha i.e.0.93. Thus, this item was not deleted from Nursing Students’ Perception Tool. Thus, item no.7 (possess leadership quality) was also contributing in the reliability of tool as this item was considered important by experts and required to become a perfect nursing teacher. So, this item was also retained in the Nursing Students’ Perception Tool.

Therefore, the overall Cronbach’s alpha coefficient and split-half method were found to be 0.93 for Nursing Students’ Perception Tool which indicated the high reliability and internal consistency of tool. (Ideally Cronbach’s alpha coefficient should be > 0.70).

The final draft of Nursing Students’ Perception Tool comprised of 40 items within following areas such as; Personal Qualities (item no. 1-7), Knowledge (item no. 8-11), Teaching Skills (item no.12-24), Clinical Competencies (item no. 25-29), Interpersonal Skills (item no. 30-35) and Evaluation Procedure (item no. 36-40. So, the final draft of developed Nursing Students’ Perception Tool comprised of 40 items in total which is found to be reliable and feasible.

<table>
<thead>
<tr>
<th>Items of Nursing Students’ Perception Tool</th>
<th>Scale Mean if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1</td>
<td>186.3500</td>
<td>0.80</td>
<td>0.93</td>
</tr>
<tr>
<td>Item 2</td>
<td>185.9000</td>
<td>0.64</td>
<td>0.93</td>
</tr>
<tr>
<td>Item 3</td>
<td>186.1000</td>
<td>0.67</td>
<td>0.93</td>
</tr>
<tr>
<td>Item 4</td>
<td>185.8000</td>
<td>0.77</td>
<td>0.93</td>
</tr>
<tr>
<td>Item 5</td>
<td>185.8000</td>
<td>0.34</td>
<td>0.93</td>
</tr>
<tr>
<td>Item 6</td>
<td>185.8500</td>
<td>0.39</td>
<td>0.93</td>
</tr>
<tr>
<td>Item 7</td>
<td>185.7500</td>
<td>0.08*</td>
<td>0.93</td>
</tr>
<tr>
<td>Item 8</td>
<td>185.9500</td>
<td>0.80</td>
<td>0.93</td>
</tr>
<tr>
<td>Item 9</td>
<td>185.9500</td>
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<td>0.93</td>
</tr>
<tr>
<td>Item 10</td>
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<td>0.93</td>
</tr>
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<td>Item 11</td>
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</tr>
<tr>
<td>Item 12</td>
<td>185.7500</td>
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<td>0.93</td>
</tr>
<tr>
<td>Item 13</td>
<td>185.8500</td>
<td>0.65</td>
<td>0.93</td>
</tr>
<tr>
<td>Item 14</td>
<td>185.9000</td>
<td>0.67</td>
<td>0.93</td>
</tr>
<tr>
<td>Item 15</td>
<td>185.7500</td>
<td>0.80</td>
<td>0.93</td>
</tr>
</tbody>
</table>
### Results

The final version of nursing student perception tool was administered to 100 nursing students in five nursing institutions of Punjab.

**Table 2 Frequency and percentage distribution of levels of perception of nursing students regarding characteristics of nursing teacher as their role model in selected Nursing Institutions of Punjab**

<table>
<thead>
<tr>
<th>Level of perception</th>
<th>Score</th>
<th>Frequency of students (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Least Satisfactory</td>
<td>40-80</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Overall scale mean 190.6

*Item to total correlation < 0.2

Overall reliability 0.93 (Unstandardized Cronbach’s alpha)
Table 2 and Figure 1 infer that 81% nursing students perceived that it is very important for a nursing teacher to have a good personal qualities and thorough knowledge. Nursing students also strongly opined that their role model must be aware of teaching skills, interpersonal skills and evaluation skills. Large numbers of students also expressed that their nursing teacher must demonstrate clinical competencies.

Whereas only 15% of students from selected Nursing Institutions of Punjab believed that these characteristics should be essential for nursing teachers to become a role model and few (4%) of them were in favor that their role model needs to possess personal qualities, knowledge, teaching, interpersonal and evaluation skills as well as clinical competencies. Therefore, findings revealed that maximum numbers of nursing students perceived that nursing teacher must possess all the characteristics which were described in Nursing Students’ Perception Tool such as sound personality, knowledge, teaching skills, interpersonal skills and evaluation skills as well as be able to demonstrate clinical competencies to become their role model.

Discussion

Education consists of leading out the innate knowledge, virtue and powers of the students; making the students’ potential actual. It helps the students’ in the development of valuable personality and spiritual individuality. The aim of nursing education is to develop student nurses at personal and professional levels. Nursing students are the consumers of the teaching and they know what they can or cannot consume. They are the best determinants to express their role model teachers and also the best judges to evaluate the type of clinical supervision and teaching they need.
There is no such likert scale available. So, the present study was undertaken to develop such a likert scale helps to identify perception of nursing students’ regarding the characteristics of nursing teacher as their role model who teaches both theory and clinical content in baccalaureate nursing programs. Initially the in-depth review of literature was done and preliminary draft of nursing student perception tool was made.

The preliminary nursing student perception tool draft was further refined by using the Delphi technique. Delphi technique is an iterative process designed to combine experts’ opinion into group consensus. It is a method for structuring a group communication process.

The classical original Delphi used four rounds. However, this has been modified by many to suit individual research aims and in some cases it has been shortened to two or three rounds. The current study also had a total of four rounds to develop a final version of nursing student perception tool to assess nursing student perception regarding characteristics of nursing teachers as their role model.

The PHASE-I- Preliminary Preparation of Nursing Students’ Perception Tool in which literature was reviewed and different items related to characteristics of nursing teacher as a role model were selected and pooled together in the form of pool.

In Phase II, content validity was established with Delphi technique. The best number of panellists for a Delphi exercise has not been determined. The number is generally governed by number of respondents needed to constitute a representative pooling of judgements. A panel consisting of about 10 experts is probably ideal, but more than 10 may be used if desired. In present study, there were 11 experts from 11 experts from the field of Nursing, Psychology, Psychiatry (Mental Health Nursing), Education and Biostatistics in all Delphi rounds. Four Delphi rounds were undertaken and modifications were made as per the suggestion given by the experts. First try out was done to check the reliability of items with in this tool.

In Phase –III- second try out was done with new formulated Nursing Students’ Perception Tool to check the reliability and feasibility of tool.

PHASE IV- As there were certain modifications after fourth Delphi round, pilot study was carried out and developed nursing student perception tool was administered on 20 nursing students to check feasibility and reliability of Preliminary draft of Tool. Cronbach's alpha can be used to assess internal consistency of tool. Generally, Cronbach's alpha value of 0.7 or greater indicates acceptable reliability. So, the internal consistency of the nursing student perception tool was ensured by Cronbach's alpha. In present study, the overall Cronbach’s alpha coefficient and split half of 40 items for Nursing Students’ Perception Tool was 0.93 respectively which indicated the high reliability and internal consistency of tool. (Ideally Cronbach’s alpha coefficient should be > 0.70). The present study findings were consistent with the findings of Gail Holland Wade and Natalie Kasper (2010) who also developed 6-point Likert scale on Nursing Students’ Perceptions of Instructor Caring (NSPIC). The overall Cronbach’s alpha for NSPIC was α=0.97 which indicated high reliability and internal consistency of tool.

Another study by Girija K. Madhavan prabhakaran et al. used Cronbach alpha coefficient for modified questionnaire on Effective Clinical Instructor Characteristics Inventory (ECICI) The final modified questionnaire had 40 items. Cronbach’s alpha reliability coefficient for their tool was 0.87; demonstrating the reliability of the tool.
After the results of pilot study Nursing Students’ Perception Tool was presented in selected five nursing Institutions of Punjab on 100 B.Sc. Nursing students. (81%) of students perceived that it is very important for a nursing teacher to have good personal qualities, thorough knowledge and proficient teaching & clinical competencies and interpersonal skills and evaluation skills. Whereas only 15% of students from selected Nursing Institutions of Punjab believed that these characteristics should be essential for nursing teachers to become a role model and few (4%) of them were in favor that their role model needs to possessed personal qualities, knowledge, teaching, interpersonal and evaluation skills as well as clinical competencies.

The present study findings were more or less similar with the findings of Gupta J.V, Walia I, Das K (2006) who also reported that students have identified five very important elements of good supervision viz. knowledge, technical, organizational, conceptual and human skills that a clinical teacher needs to have. The highest scores were given to 'knowledge' of the supervisor followed by 'human skills'. The least weightage was given to 'conceptual skills'.

In the same line, Viverais-D, Kutschke (2007) reported that nursing students emphasized the importance of clinical instructor being accessible, impartial, direct, honest and being with a profile of fostered mutual respect whereas Claudette, (2006) explored student’s perception of effective clinical teaching at Thompson Rivers University, British Columbia and found that students are remarkably consistent and rated teacher’s knowledge, feedback and communication skills as the most important effective clinical teaching qualities.

In the phase-II, after the second Delphi survey, Nursing Students’ Perception Tool –II was prepared with total 50 items and first try out was done on B.Sc. Nursing Ist year students’ to check items to total correlation. After the experts’ opinions, 6 items were deleted from Nursing Students’ Perception Tool as item to total correlation was less than 0.2. (The optimal value for item to total correlation should be at least 0.2-0.8).

In the phase- III, the third Delphi round was conducted with same experts and their suggestions were incorporated for the further refinement of Nursing Students’ Perception Tool-III which consisted of total 44 items.

At this stage, second try out was done with NSPT-III on B.Sc. Nursing. 1st year students to check the item to total correlation. Only 4 items showed item to total correlation less than 0.2. (The optimal value for item to total correlation should be at least 0.2-0.8). Thus, after the experts’ consultation these four items were deleted to generate final draft of Nursing Students’ Perception Tool.

Similarly, the findings of present study were consistent with Michele C. Clark and Steven V. Owen (2005) who also adopted modified Delphi technique for the development of self-efficacy for clinical evaluation scale to measure students’ perceptions of clinical competence. SECS were developed after 3 classical Delphi rounds and final draft consists of total 30 items on 5-point Likert-type scale.

Unfortunately, the findings of present study were contradictory with the findings of Agaath M. Dekker-G, Marieke F (2008) who also adopted Delphi surveys to develop framework for teacher competencies required for developing reflection skills of nursing students. Two Delphi rounds were conducted by researcher to obtain common consensus Experts judged teacher competencies on a seven-point Likert-type scale.
Preparation of preliminary draft of tool to assess the nursing students’ perception regarding characteristics of nursing teachers as their role model

At this stage, after the fourth Delphi round, preliminary draft of Nursing Students’ Perception Tool-IV (Annexure -8) was prepared with total 40 items on 5-point Likert scale. Items were categorized under six areas which include; Personal Qualities (Item no. 1-7), Knowledge (Item no. 8-11) and Teaching Skills (Item no. 12-24), Clinical Competencies (Item no. 25-29), Interpersonal Skills (Item no. 30-35) and Evaluation Procedure (Item no. 36-40). The present findings of study were more or less similar with the findings of Brown (1981) who developed statements Clinical Teacher Characteristics Instrument (CTCI), which was further divided into three dimensions; professional competence, relationship with students, personal attributes.

Presentation of Nursing Students’ Perception Tool regarding characteristics of nursing teachers as their role model

Here, Nursing Students’ Perception Tool was presented in selected five nursing Institutions of Punjab on 100 B.Sc. Nursing students. Maximum numbers (81%) of students perceived that it is very important for a nursing teacher to have good personal qualities, thorough knowledge and proficient teaching & clinical competencies and interpersonal skills.

Whereas only 15% of students from selected Nursing Institutions of Punjab believed that these characteristics should be essential for nursing teachers to become a role model and few (4%) of them were in favor that their role model needs to possess personal qualities, knowledge, teaching, interpersonal and evaluation skills as well as clinical competencies.

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Conclusion

The study showed that maximum numbers of nursing students perceived that nursing teacher must possess all the characteristics which were described in Nursing Students’ Perception Tool such as sound personality, knowledge, teaching skills, interpersonal skills and best evaluation skills as well as ability to demonstrate clinical competencies to become their role model. Thus it can be concluded that Nursing Students’ Perception Tool was proven to be helpful to assess nursing students’ perception regarding the characteristics of nursing teachers as their role model. Thus, knowing these characteristics of excellent role model would help the nursing institutions to formulate strategies, policies to recruit, retain and develop their nursing teacher.
References


