

CLIENT PERCEPTIONS OF NURSING PRACTICE

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Nursing practice may be defined according to standards developed by the Canadian Nurses Association (CNA) through a process of professional nursing consensus (CNA, 1980). The modern-day tennet of consumer satisfaction has encouraged nurses and the institutions in which they work to emphasise client satisfaction in order to ensure long-term professional and institutional survival. This has prompted researchers to solicit information from clients on their perception of hospitals (Ben-Sira, 1983; Haxhe, Zumofen, De Coninck, et al., 1981) and nursing practice (Altschul, 1983; Mangen & Griffith, 1982; Weiss & Davis, 1983) as part of nursing quality assurance programmes. It has even been suggested that nursing practice be divided into two distinct roles; institutional "hostess" and "task worker" (Bokma & Timmer, 1983).

A client focus is presented in this paper, an investigation of the ways in which clients *describe* and *evaluate* nursing practice. Once the features or "dimensions" of client perceptions are known, nurses can take full advantage of this information to deliver appropriate service.

Data for this investigation were collected by means of a Nursing Environment Audit (Elbeik & McGill, 1985a; 1985b) based on standards developed by the CNA. This type of client satisfaction survey measures client perceptions of nursing practice.

Survey Administration

Responses to the 39 statement Nursing Environment Audit (NEA) were obtained from 269 clients (113 male and 156 female) from 14 nursing units in a 750 bed teaching hospital, during the months of November and December 1984. The sampling plan was a two stage cluster version: all nursing units were included with the exception of pediatrics, extended care, labour and delivery, and nurseries. Clients were selected using random numbers. The subjects were limited to those with a minimum nursing unit stay of 72 hours, an ability to read and comprehend the terms in the survey, and who were willing to participate. Each respondent was given a card which

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Table 1

Identifying Dimensions of Nursing Practice using Factor Analysis

	Factor Loadings
<i>General dimension #1: Routine Care</i>	
- If the room temperature is not to my liking, the nurse usually alters it for me	.820
- The nurses usually ask me whether the room temperature is to my liking	.782
- The nurses told me about the availability of the hospital Chaplains, Local clergy, or the Sister Visitor	.766
- A nurse explained safety rules about side-rails, sedation, and smoking to me	.753
- A nurse helps me with my meals soon after the trays are delivered to my room	.727
- The nurses answer my call bell quickly enough	.690
- A nurse introduced me to my roommate(s) and/or staff	.689
- The nurses try to prevent me from being bored	.686
- The nurses assist me with exercise when the physiotherapist is not here	.665
- A nurse(s) helped me with my bath or shower as requested	.597
- I am encouraged to spend time talking with my roommate/other patients and with nurses	.498
<i>Group dimension #1: Counselling and Post-Operative Care</i>	
- The nursing staff have provided teaching sessions or counselling in my problem areas	.754
- If I use Oxygen equipment, the nurse administers it with little discomfort	.714
- The nurse(s) assist in making arrangements should my family be unable to help at home	.686
- If I had to wait for answers from a nurse to any of my questions, it was for a reasonable length of time	.633
- If I foresee any problems adjusting when I get home, the nurses are advising me how to deal with them	.565
- If I have been transferred from another unit, the nurses have made attempts to make me feel welcome in my new surroundings	.563
<i>Group dimension #2: Recuperation and Exercise</i>	
- The nurses provide me with adequate opportunity to rest	.739
- I feel that the nurses ensure that I receive reasonable exercise for my condition	.655
- If I am unable to sleep, measures are taken to help me by the nurses (i.e., sedatives, quietness, dark room, etc.)	.620
- If I should be doing any special exercises, I am encouraged by the nurses to do these exercises	.548
- If I notified a nurse(s) about a problem with my bowels or bladder, the nurse(s) tried to help me	.487
- I feel my care by the nurses is being done basically in the same way every day	.455
<i>Group dimension #3: Dignity and Respect</i>	
- The nurse respected my privacy during my care	.875
- My rights are respected by the nurses with regard to visitors	.846
- I am satisfied with the nurse's explanation of my condition	.835
- I feel free to talk in confidence to the nurses about my problem	.808
<i>Group dimension #4: Empathy</i>	
- When I ask different nurses the <u>same</u> question, they all give a similar answer	.711
- If I have any special religious needs or beliefs, these are being respected by the nurses while I am here	.663
- If this illness/hospitalization has made me feel differently about myself, a nurse(s) discussed these changes with me.	.644
- I feel the nurses are concerned with my problems	.513
<i>Specific dimension #1: Comfort</i>	
- Nurses talk to me in a way I can understand	.837
- I find the nurses helpful	.754
- The nurses help me to feel relaxed most of the time	.735
- The nurses help me feel comfortable most of the time	.471
<i>Specific dimension #2: Individuality</i>	
- The nurses usually call me by my preferred name	.824
<i>Specific dimension #3: Trust and Involvement</i>	
- The nurse <u>always</u> checks my armband before giving me medication	.789
- The nurse gave me an opportunity to make choices during my care	.648
<i>Specific dimension #4: Immediate Response</i>	
- If I suffered an injury while here, a nurse(s) provided assistance promptly	.661

explained the Likert response scale used to rate each statement. The administering nurse was instructed to assure the client of complete anonymity. The completed survey was placed in an envelope, sealed, and delivered to the nursing administration office. Less than 5% of the selected clients refused to participate in this study.

The objective of the study was to identify the dimensions of nursing practice as perceived by the user of such services - the client. Factor analysis was used to obtain clusters of statements from the NEA which formed factors or dimensions describing nursing practice.

Results

The application of factor analysis

Factor analysis was applied to the NEA data and as shown in Table 1, the analysis produced nine factors or dimensions classified into three hierarchical categories: one general dimension, four group dimensions, and four specific dimensions. The author labelled the nine dimensions with respect to the nature of the supporting statements. For example, the general dimension "routine care" reflects the nature of its eleven supporting statements. This procedure was carried out for all nine dimensions, with each dimension reflecting its unique collection of statements.

Each statement's factor loading is a measure of the strength of association between the statement and its dimension. Statements with factor loading below 0.400 are normally discarded, though not one of the 39 original statements exhibited a factor loading less than 0.400. For further discussion of this factor analysis see Appendix A.

The cumulative effects of all nine dimensions which explain over eighty percent of the variation (cumulative variability) of nursing practice, as perceived by nursing unit clients throughout the hospital, are presented in Table 2. This finding showed that clients were able to describe over 80 percent of nursing practice in terms of nine dimensions.

In consequence, each dimension label reflects the totality of all its related statements. This provides the researcher with confidence about the relevance of the statements with respect to adequate factor loading, and about the ability of factor analysis to reflect the totality of nursing service as supported with the high 80.7% cumulative variance score shown in Table 2. The explained cumulative variability (cum var) allows for known separation between dimensions: the general dimension "routine care" - by far the most important dimension; followed by the group dimensions; and, finally, the specific dimensions.

Table 2

Nine Dimensions of Nursing Service as Perceived by Clients

	Cum Var	n	sd	u	u%	95% ci Range
<i>General Dimension</i>						
Routine care	41.2%	268	0.864	1.92	77	74.7-79.7
<i>Group Dimension</i>						
Counselling & post-operative care	51.0%	262	0.888	1.84	79	76.2-81.7
Recuperation & exercise	57.1%	265	0.689	1.54	86	84.5-89.5
Dignity & respect	62.1%	271	0.700	1.43	89	87.2-91.2
Empathy	66.8%	269	0.774	1.62	84	82.2-86.7
<i>Specific Dimensions</i>						
Comfort	71.1%	271	0.585	1.35	91	89.5-93.0
Individuality	74.8%	255	0.716	1.38	90	88.2-92.7
Trust & involvement	78.0%	267	0.601	1.44	89	87.2-90.7
Immediate response	80.7	170	0.722	1.46	88	85.7-91.2

Explanatory Notes:

Dimensions: Classified into three categories; the single general dimension which covers the 'modus operandi' of nursing practice; the group dimensions deal with better defined areas; and the specific dimensions identify highly focused areas of nursing practice.

Cum Var: Each dimension further explains client perception of nursing practice. For example, the first dimension explains 41.2% of the variability of survey response, the second dimension adding a further 9.8% (51% cumulatively), up to a total of 80.7%.

n: Number of client responses to each dimension.

sd: Standard deviation of the mean score for each dimension.

u: Mean score converted to percentage, calculated as: $5 - u \times 0.25 \times 100$.

95% ci Range: This is an estimate at 95% certainty ($\alpha = 0.05$) that all hospital clients will score in this range, assuming no change in nursing practice for any of the dimensions.

The application of dimensions as performance measures

Knowledge of the structure and relative importance of the derived dimensions may be used as a client-oriented measure of nursing practice. This involves calculating the multi-statement mean score for each of the nine dimensions. This information may be calculated for all the nurses in a hospital on a nursing unit basis, by nurse's age, level of experience, qualifications, etc.

The mean scores for each dimension, followed by a percentage conversion of the mean score based on the responses which ranged on a scale 1 to 5, are presented in Table 2. Any dimension with a score under 75% may be considered for investigation, the logic being that 75% translates as "Agree" on the response scale - a lower score implies indecision (unsure) or disagreement. That is, a 75% score acts as the minimum acceptable client

response score; and to ensure that scoring trends do not cross the minimum level, scores between 75% and 80% should also be scrutinized.

The selection of a 75% to 80% minimum performance cut-off value is necessary when considering the possible halo effect nurses might have on their clients. A limitation to the study concerns client reluctance to respond in a negative manner (reflecting the true state of affairs), for fear of retaliation from the nursing staff, unless great efforts are taken to ensure client confidentiality. Further, the use of concurrent questionnaire administration ensures client spontaneity of response which may not be the case with post-discharge variants.

To refine the utility of the percentage mean scores, a range was calculated for each of the dimensions at the 95% confidence interval. For example, for the general dimension of "routine care", nursing administrators have 95% certainty that all hospital clients would respond to this general dimension within a 74.7% to 79.7% range of satisfaction. As part of the scoring range falls below 75%, this dimension would require investigation. Nurses would be informed of their performance on this dimension and given the actual determinants and scores of this dimension (the eleven statements making up the general dimension).

As the scores are mean values for a particular dimension there may be individual items with scores under 75%, thus nursing administrators cannot be complacent in relation to high scoring dimensions.

Examination of the group dimensions shows mean scores above 75%. At the 95% confidence interval, the group dimension "counselling and post-operative care" has a scoring range between 76.2% and 81.7%. The nursing administrators would need to explain the nature of the first group dimension "counselling and post-operative care" to the nurses. A follow-up NEA survey would indicate whether or not nurses reacted to instructions for increased effort (satisfaction) in the two poorly scored dimensions. The remaining three group dimensions and four specific dimensions all show scores in excess of 80% at the 95% confidence interval scoring range.

Implications for Nursing Administrators

Nursing administrators can use such information to improve nursing practice by informing nursing staff of the way clients "judge" nursing practice, and as a result such information may be incorporated into quality assurance programmes. Each dimension's mean score allows nursing administrators an overview of unit or hospital-wide nursing practice from a client's point of view. Statement-specific scores should be examined on a periodic basis to isolate particular client perceptions of nursing practice.

Results presented in Table 1 suggest that clients place great emphasis on routine tasks carried out by nursing staff. The remaining eight dimensions elucidate the importance of personalized forms of nursing practice.

The nine dimensions of nursing practice developed as a result of this study and the seven standards (dimensions) developed by the CNA are compared and the findings presented in Table 3. The client developed list has known hierarchy and interval between dimensions and, as well, offers insight to the standards developed by the CNA.

Table 3

Comparing Client to Canadian Nursing Association (CNA) Dimensions of Nursing Practice

Client developed dimensions	CNA developed standards
1. Routine Care	1. Individual Rights
2. Counselling & Post-Operative Care	2. Safety Needs
3. Recuperation & Exercise	3. Physical Needs
4. Dignity & Respect	4. Psychological Needs
5. Empathy	5. Social Needs
6. Comfort	6. Spiritual Needs
7. Individuality	7. Learning Needs
8. Trust and Involvement	
9. Immediate Response	

Discussion

Which list of dimensions should the nursing administrator select? This decision should be made in light of the fact that the NEA survey was developed from standards of nursing practice developed by the CNA, the results reflecting client manipulation of the standards. This knowledge ensures satisfactory face and content validity of the findings in this paper. To establish factor reliability, the original NEA survey would be administered to another large group of clients using the same analysis as that used in this study. The client-developed dimensions carry substance with respect to conceptual models of nursing practice (e.g., CNATS; Henderson, 1966; Orem, 1980; Roy, 1976) which all rationalise themselves in terms of the client. This being the case, why not ask clients for their perception of nursing practice rather than examine nurses beliefs about what practice should be.

The importance of client perceptions of nursing practice cannot be overstressed. It is useful for nursing students and practitioners to be aware of how clients perceive nursing practice. This allows the development of methods to improve the level of nursing practice with regard to the dimensions discussed in this paper, in addition to other sources of nursing information.

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APPENDIX A

Statistical Synopsis; At the 95% confidence interval ($\alpha = 0.05$), the *sampling* error was calculated as 5.88% ($P = 0.5$ for proportionate sampling purposes), that is, with 95% certainty the survey results may be out by no more than 5.88% in the ability to forecast the responses of the hospital annual turnover of 11,505 clients. *Non-sampling* errors may be considered random and multi-directional and therefore self-cancelling. The factor analysis used to develop the dimensions in Table 1 used a listwise deletion of missing values, a principal components analysis extraction (Harman, 1967), followed by 28 iterations allowing for an orthogonal varimax rotation for maximum factor separation. For an explanation of the various statistical techniques covered in this paper, see Weiers (1984). All statistical manipulations were carried out using the University of New Brunswick IBM 3081 mainframe computer and version ten of the SPSS Inc. (1983) package.

RÉSUMÉ

Comment le client perçoit l'exercice de la profession infirmière

Cette étude souligne le besoin d'établir une taxonomie décrivant l'exercice de la profession infirmière du point de vue des clients. Les résultats d'un sondage effectué en milieu infirmier ont été soumis à une analyse de facteurs et ont donné lieu à une taxonomie en neuf points qui explique 80% de l'exercice de la profession. Les facteurs dérivés ont été comparés et exposés par rapport à d'autres modèles conceptuels. Les données de cette étude ont été recueillies auprès de 269 clients d'un hôpital régional des provinces de l'Atlantique au Canada.

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