

# SURVEY OF RESEARCH TOOLS USED FOR ASSESSMENT OF PERFORMANCE OF NURSES WORKING IN HOSPITALS

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## ABSTRACT

A nurse is a caregiver for patients and helps to manage physical needs, prevent illness, and treat health conditions. Nurse need to observe and monitor the patient health status. Assessment of nurse performance plays an important role in assuring high quality clinic care to achieve patient outcomes. Many tools measuring nurse performance in clinical sets have different dimensions of nurse skills. The measurement of performance of nurses helps to find deviance in the efficiency of nurses' work, but also simplifies the implementation of actions improving the quality of performance. The objective of the study was analysis of literature concerning the structure and principles of the application of instruments used for the assessment of performance of nurses. The performance of nurses should be measured by the tool which facilitates its evaluation in a different context, and possesses a high reliability and validity.

**Key Words:** Nurse, assessment, nurse performance, instruments.

## INTRODUCTION

Nurses are active in the delivery and management of physical and psychosocial care for a variety of patients and their families. Nurses and midwives play important roles in health promotion, disease prevention and maintaining health. Vital roles and responsibilities of nurses are to assess the health needs of individuals, prepare plan and healthcare reports, communicate with patient's family members and to improve patient outcomes. Research tools used for assessment of the clinical performance of nurses has long history. Many of the researchers are still interested in designing reliable instrument for the assessment of nurse performance

Nursing staff are the health care specialists that are major line of protection for patient, community care and staff. They supports patients, communities and staff. Head nurse is a key position in health teams in hospitals, care homes, clinics, and smaller specialty health practices. Management is ability of leading, planning, staffing, organizing, and controlling actions to reach objectives. Planning includes determine of objectives and finding methods to achieve them. Staffing and organizing is the process of confirming that the important physical and human resources are obtainable to attain the objectives of planning. Organizing also includes identify job to the correct individual or team and identifying who has the manager to achieve responsibilities. Managing is effecting others staff to reach the organizations objectives and includes directing, energizing and persuading others staff to reach those objectives. Controlling is comparing real role to a standard and rereading the original strategy as required to reach the objectives. Doctors and Nurses are crucial among all staff of hospitals. The performance of nurse is very significant because there performance affects patient's health. .

## LITERATURE REVIEW

Tools used for assessment of nurse performance can also be used for other staff members of the hospital.

The most widely used research instrument for the evaluation of nurses performance was the Six Dimension Scale of Nursing Performance (SDNS). The questionnaire was designed in the years 1974-1977 by P. Schwirian.

The intention of the researcher was an assessment of the performance of nursing graduates and nurses with the period of employment up to 2 years. Six Dimension Scale of Nursing Performance has been applied not only to assess performance of the graduates of nursing, but also those with long-term professional experience. Studies were performed in the form of nurses' self-reported performance, and evaluation by an observer.

Previously, the instrument Six Dimension Scale of Nursing Performance consisted of 76 detailed criteria. The final version contains 52 detailed criteria, which have been attributed to 6 main categories :

- 1) Leadership (5);
- 2) Intensive / critical care (7);
- 3) Teaching / collaboration (11);

- 4) Planning / evaluation of care (7);
- 5) Interpersonal relations / communication in the team (12);
- 6) Professional development (10).

P. Schwirian conducted the pilot study using the Six Dimension Scale of Nursing Performance in 151 nursing schools located in the United States. In literature, there is wide recognition that the tool Six Dimension Scale of Nursing Performance and its validated versions serve best the assessment of performance of nurses.

In 1990, the researchers D. Battersby and L. Hemmings examined a modified version of the Six Dimension Scale of Nursing Performance among 115 graduates of nursing. The questionnaire, shortened to 24 detailed questionnaire items, was named a Modified Version of the Scale of Review of research tools for assessment of performance of nursing Staff Nursing Performance (SNP). Using this tool a pilot study was conducted and the validation process performed.

The subsequent research tool based on the Six Dimension Scale of Nursing Performance is the Nurse Competence Scale developed by R. Meretoj. This tool consists of 73 detailed items (skills) attributed to 7 main criteria:

- 1) Helping role (7);
- 2) Teaching - coaching (16);
- 3) Diagnostic functions (7);
- 4) Managing situations (8);
- 5) Therapeutic interventions (10);
- 6) Ensuring quality (6);
- 7) Work role (19).

Each detailed criterion was ascribed the VAS scale from 0 - 100, where 0 means a very low level, whereas 100 a very high level. For the assessment of performance of individual activities the four-point Likert scale was applied where: 0 – activity not performed; 1 – activity performed very rarely; 2 – activity performed sporadically; 3 – activity performed very frequently.

In 2005, the Chinese researchers H. Yang and G. Liu developed a later adaptation of the questionnaire Six Dimension Scale of Nursing Performance. The tool contained 52 detailed items ascribed to 6 main criteria (leadership, critical care, teaching/collaboration, planning/evaluation of care, interpersonal relations/ communication in the team, professional development). The detailed criteria were attributed a three-point descriptive scale: low, moderate, high. The Six Dimension Scale of Nursing Performance in the Chinese language was used for the assessment of the effect of socio-economic factors on the performance of nurses. The subsequent research tool which was a basis for the development of a questionnaire allowing the assessment of performance was the Self Report of Competence. This questionnaire was constructed based on the tool Nursing Expertise Self-Report Scale (NESRS) by P. Bernner. The author who designed the tool described 3 changes in the performance of nurse during their professional development.

The first change referred to giving direction to the activities of nurses from the management in accordance with the standards in effect, to relying on the experience possessed.

The second change was from the holistic perception of the clinical situation of the patient towards focusing on the most important health issues.

The third change was described as a transition from an observer towards the engaged performer of individual professional activities.

The questionnaire by P. Bernner consists of 20 detailed criteria. Each criterion was ascribed a five point Likert scale where: 1 - means 'I definitely agree', while 5 - 'I definitely disagree'. For 10 criteria, a reverse coding was applied (a higher result meant a higher level of performance). The threshold scores allowing the assessment of performance were not specified by the author. The evaluation scale ranged from min. 20 - max. 100 scores. A low result evidenced a lower level of performance, whereas a high result – an expert level.

The Work Limitation Questionnaire (WLQ) was designed by D. Lerner et al., in order to specify the degree to which health problems interfere with individual aspects of work performance, and result in a decrease in work efficiency. The questionnaire contains 25 detailed criteria ascribed to 4 main criteria:

- 1) Time management (5);
- 2) Physical demands (6);
- 3) Mental-interpersonal demands (9);
- 4) Other demands related with performance of work (5).

The main criterion of time management refers to the difficulties with managing work time and establishing the work schedule. The second criterion of physical demands covers detailed criteria related with the ability to perform job tasks that involve bodily strength, movement, endurance, coordination and flexibility. The third criterion addresses the ability to perform cognitive job tasks, and the skills of interpersonal relations. The last criterion refers mainly to the assessment of work performance in the qualitative and quantitative context. Each criterion was attributed a numerical scale from 0 - 100, where 0 means 'unlimited',

while 100 – ‘limited all the time’. The questionnaire The Work Limitation Questionnaire is applied worldwide. The instrument is used for evaluation of individual occupational groups, including nurses, employees of factories, as well as for the assessment of person's ill with chronic diseases, including depression, arthritis, cardiovascular diseases, asthma, cancerous diseases, skin diseases, and diseases of the musculoskeletal system. More than 30 language versions are available.

Slater Nursing Competencies Rating Scale was designed in the 1970s by M. Wandelt and D. Stewart. The questionnaire contains 84 detailed criteria ascribed to 6 main criteria [22]:

- 1) Psychosocial independence (18);
- 2) Group psychosocial relations (13);
- 3) Physical (13);
- 4) General (16);
- 5) Communication (7);
- 6) Professional implications (7).

The questionnaire Slater Nursing Competencies Rating Scale was applied to evaluate performance of nurses according to the organization of nursing care, as well as to compare the nurses' self-reported performance with the evaluation provided by the patient.

The later research tool is the King's Nurse Performance Scale designed by J. Fitzpatrick. The construction of this instrument results, to a great extent, from the research tool Slater Nursing Competencies Rating Scale, but also considers the opinions of experts in the field of nursing. The researchers' idea was to compare knowledge and performance among nurses educated according to educational programmes. Using the King's Nurse Performance Scale the researchers examined a group of 99 schoolgirls and students of the last education years in the United Kingdom. The first version of the tool King's Nurse Performance Scale contained 65 detailed criteria subordinated to 7 main criteria referring to performance of nurses.

The first group of the main criteria concerned the activities of nurses and focused on the physical needs of patients, and contained 14 detailed criteria.

The second group of main criteria consisted of 6 detailed criteria and referred to psychosocial needs.

The third group of the main criteria focused on performance of professional tasks (9 detailed criteria).

The fourth group contained 4 criteria related with health promotion and patient education. .

The fifth group contains communication taking place between nurse, and patient and nurse, and the remaining members of the therapeutic team.

The sixth detailed criteria verified the abilities for organizing own work and the work of subordinates.

The final version of the tool King's Nurse Performance Scale consists of 53 detailed criteria, to which are recognised responses contained in the descriptive scale. The scale contained 6 evaluations referring to the performance of individual activities. The adverbs describing the replies are: independently, under supervision, with support, in a way dependent on others, and not observed.

The research instrument Behaviour Anchored Rating Scale (BARS) was developed by P. Springer in 1998. Work performance is determined by making the current assessment of an employee at the turn of the year. BARS contains 8 main criteria [23]:

- 1) Judgement and decision-making;
- 2) Skills of organization and determination of priorities;
- 3) Engagement in the social environment / emotional engagement in the professional environment;
- 4) Skills of behaviour in difficult situations;
- 5) Engagement in the work environment;
- 6) Performance of the nursing process;
- 7) Reliability;
- 8) Development of professional career.

To every main criterion a 5-degree visual-analogue scale was ascribed. A higher result means a higher performance of an employee in the individual main criteria. Persons performing assessment by means of the BARS may create individual descriptions for particular values placed on the scale. In the pilot study conducted using the research tool Behaviour Anchored Rating Scale, 26 nurses participated who occupied managerial positions in home care, as well as in outpatient departments and hospitals. The BARS questionnaire was used for the assessment of work performance of 130 nurses made by their superiors.

Registered Nurse Performance Appraisal Tool was designed by R. Hader et al. The tool consists of 33 main criteria attributed to 3 major criteria [24]:

- 1) Professional practice (12);
- 2) Leadership (11);
- 3) Education (5).

Each of the main criteria was attributed a 3-degree evaluation scale. For the criterion professional practice:

0 – does not meet standards; 1 – acts in accordance with standards; 2 – exceeds the adopted standards. For the criterion leadership: 0 – does not meet standards (does not perform basic duties, expects bearing responsibility by other employees); 1 –

acts in accordance with guidelines in situations of the provision of care at critical moments, e.g. while performing cardiopulmonary resuscitation; 2 – exceeds the adopted standards, can manage the team in situations of the provision of care at critical moments. For the criterion education: 0 – does not satisfy (participates in less than 15 hours of continuous training annually); 1 – satisfies (participates in 15-25 hours of continuous training annually); 2 –exceeds (participates in more than 25 hours of continuous training annually). The scores obtained from all main criteria should then be divided by 33 which is the total number of detailed criteria.

The study using the questionnaire Registered Nurse Performance Appraisal Tool was conducted by 30 nurse managers. The superiors evaluated their subordinates from the aspect of work performance twice. The subsequent study was carried out 1 month after the first study.

Later research instrument for the assessment of performance of nurses is Competence Inventory for Registered Nurses (CIRN), developed by M. Liu et al. The questionnaire contains 80 detailed criteria ascribed to 8 main criteria [10]:

- 1) Leadership (11);
- 2) Clinical care (12);
- 3) Interpersonal relations (13);
- 4) Practicing the profession in accordance with the law in effect /ethically (9);
- 5) Teaching - coaching (8);
- 6) Professional development (9);
- 7) Critical thinking (8);
- 8) Conducting research (9).

Each detailed criterion was attributed a 5-point Likert scale where: 1 – activity performed in an unsatisfactory way, and 5 – activity performed very well. The research tool which, together with the instrument Organizational Justice Questionnaire Sheet served the assessment of the correlation between organizational culture justice and work performance, is the Quality Performance Questionnaires Sheet.

The instrument was designed in order to investigate performance of the health care staff. The questionnaire was developed by the author of the above-mentioned study based on literature review. It contains 30 detailed criteria attributed to 3 main criteria [25]:

- 1) Informing (11);
- 2) Value (10);
- 3) Skills (9).

Each of the detailed criteria was attributed 3-point Likert scale assessing the level of quality of performance of particular activities describing work performance. The higher the result obtained, the higher the level of performance.

## OBJECTIVE

The main objective of the study was to review the instruments used for the assessment of performance of nurses based on international literature.

## DISCUSSION

The review of literature showed various approaches of researchers to the assessment of nurses' performance. None of the instruments was considered as a Review of research tools for assessment of performance of nursing staff 'gold standard'. The research tool Six Dimension Scale of Nursing Performance has been applied many times in various countries. So it is considered as most popular and valued instrument.

## CONCLUSION

The widely used instrument for the evaluation of Performance of nurses is the Six Dimension Scale of Nursing Performance.

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