Level of nursing care vs life quality of patients in the terminal stage of a disease

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Abstract

A patient whose treatment has been unsuccessful and a disease still develops enters a terminal stage of the disease which inevitably leads to death. In nursing the evaluation of care quality and measuring its influence on the quality of patients' life have become enormous challenges and are placed among the most crucial issues. The aim of the research is to evaluate the relationship between the quality of nursing services and the life quality of patients in the terminal stage of a disease. The research activities were carried out in five centres of palliative care, 57 nurses and 99 patients in the terminal stage of a disease were involved. The BOHIPSZO method was used to analyse the quality of care, life quality of the patients was measured by means of RSCL – The Rotterdam Symptom Checklist. The material was subject to statistical analysis. The research results show that high level of hospice nursing care positively affects the quality of life in its physical and psychological spheres.

Key words: nursing care quality, quality of life, palliative care.

Introduction

The fundamental aim of palliative care is to maintain the best life quality of patients in the terminal stage of a disease. One of definitions says: 'quality of life – is a degree of material and non-material needs satisfaction of individual persons, families and communities' – it combines a material and non-material subjective approach to the idea of satisfying needs [1]. In 1990 Schipper introduced a new, precise definition of QL, suitable for medical purposes: HRQL – Health Related Quality of Life, which comprises four spheres of existence: physical state, locomotion efficiency, psychological state, social status and economic condition, somatic sensations [2]. Terminal stage – the last in a disease usually lasts 4-6 weeks. What's typical of this stage is a marked irreversible deterioration of a general condition and a restriction of locomotion efficiency. This disease stage requires particular care about a proper symptom control and a general life quality improvement [3]. A patient – nurse relationship plays the main role in palliative care. Three concepts of such a relationship are given by Muetzel (1988). According to him, intimacy and reciprocation between a patent and a nurse coexist during a therapy. Muetzel also believes that a nurse has to be aware of, or at least open to such a substantial relationship to develop [4]. What is more, as claimed by Watson (1988), such a 'caring' relationship establishes when a patient is treated by a nurse as an individual, when a nurse is also able to develop and strengthen this mutual contact [5]. Campbell (1984), a theologian, compares such a nurse–patient relationship to a journey. Two people are travelling together for some time, they are getting closer and closer, make contact, yet with certain restrictions. At the end of the journey they separate without a deep personal relationship; this is called 'moderated love' [6]. Nursing care does not include merely technical and manual procedures, but also involves a huge area of interpersonal relations, individual psychotherapeutic and educational effect or the support system.

Material and methods

The aim of the research is the evaluation of the relationship between the quality of nursing services and life quality of patients in the terminal stage of a disease. The research was

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Received 07.02.2005 Accepted 15.02.2005

Table 1. **Nursing care level**

No	Group	Real value	Nursing care coefficient
1.	Ward	6.08	97.06%
2.	Hospice	35.30	83.40%
3.	Ward	54.20	74.70%
4.	Hospice	6.42	96.93%
5.	Hospice	7.53	96.43%

carried out in five hospices and/or palliative care wards located in the following provinces: Pomorskie, Warmińsko-Mazurskie and Kujawsko-Pomorskie. The research involved 57 nurses and 99 patients in the terminal stage. The BOHIPSZO method was used for the evaluation of the quality of nursing services since it involved an individual care analysis of each patient based on 240 criteria. Patients' life quality evaluation was performed by means of RSCL – The Rotterdam Symptom Checklist – specially modified to deal with patients in the terminal stage of a disease. The method was based on four meetings with a patient. Statistical analysis was made with the use of STATISTCA PL package [7], whereas statistical reasoning – by means of a multi-variable analysis. The analysis of variance (ANOVA) with repeated measurements according to the following model: group time of examination was use for life quality analysis based on the RSCL scale. The analysis of dependence between pairs of variables was carried out by means of a linear correlation coefficient according to r-Pearson product moment [8].

Results

The highest nursing care level was observed in the first unit – 6.08 points in real numbers (the closer a number to '0', the better nursing care) and 97.06% in interests (the closer to 100% – the better care), the lowest nursing care level was observed in the third unit (*Tab. 1*).

As results from the information presented in *Fig. 1* – the examination time is significant since it makes the results differ in subsequent time points of life quality evaluations concerning the physical sphere ($p<0.001$). The second and third examination after being taken to a hospice indicate a considerable and statistically significant improvement in a physical sphere RSCL as compared to the initial examination. Nevertheless, due to progressing deterioration of patients' condition as well as the exacerbation of somatic symptoms, life quality significantly decreases again in the final examination (*Fig. 2*).

At a stated level of significance – 0.05, no significant group effect has been observed, which means that in a physical sphere RSCL a variety of life quality mean values concerning the aspect of the analysed group affiliation has not been confirmed. The only thing noticed was a tendency ($p<0.1$) for patients from the third group to show greater exacerbation of somatic symptoms.

What is presented in *Fig. 3* is the fact that the examination time effect is crucial for the existence of various results of the subsequent examinations evaluating life quality in a psychological sphere ($p<0.001$). In the second and third examination, in comparison to the first one, a considerable and statistically significant improvement in the psychological sphere RSCL was observed. The life quality deteriorating in the psychological

Figure 1. **The mean value of the physical sphere RSCL – examination time effect**

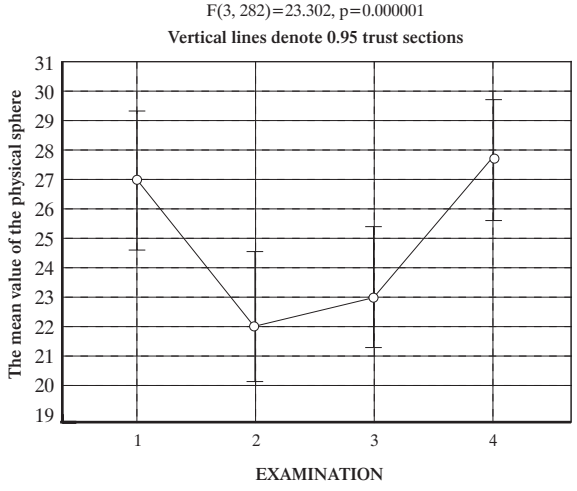

Figure 2. **The mean value of the physical sphere RSCL – group affiliation effect**

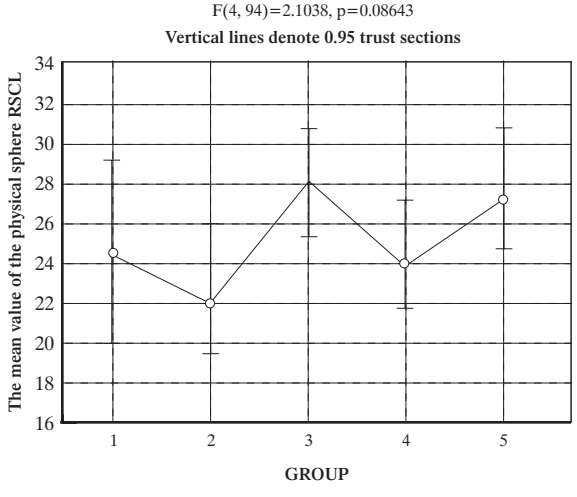

Figure 3. **The mean value of the psychological sphere RSCL – examination time effect**

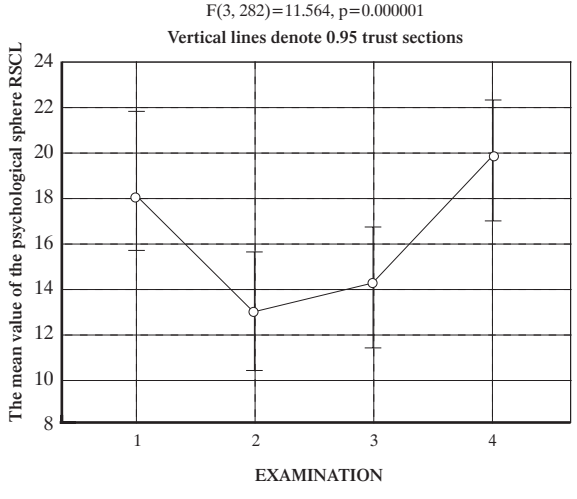

Table 2. **The dependence correlation between nursing care quality and the quality of life in the physical sphere in the 3rd and 4th examinations and the quality of life in the psychological sphere in the 4th examination**

N=99	QL PHYS. 3	QL PHYS. 4	QL PSYCH. 4
Quality of nursing care	r=-0.289 p<0.05	r=-0.236 p<0.05	r=-0.173 p<0.1

sphere in the fourth examination results from a simultaneous exacerbation of somatic symptoms (*Tab. 2*).

The examination was based on an individual evaluation of life and nursing care quality of each patient in the n=99 attempt. Statistical analysis was based on r-Pearson's correlation coefficient. The results obtained in the third an fourth examinations indicate there exists a dependence between nursing care quality and the level of patients' life quality in the terminal stage of a disease in the physical sphere ($p<0.05$), and the psychological sphere in the fourth examination ($p<0.1$).

Discussion

Patients in the terminal stage of a disease – this is a very specific group of patients in which the form of care plays one of the most significant roles in the obtained effects on their life quality. Quality studies realised in palliative care by numerous researchers around the world are still developing. While making the research analysis in this area O'Hendley (1997) stated: 'despite the striking development of palliative care, the effectiveness of research results is still limited' [9]. The causes of an insufficient number of studies confirming high quality of nursing services in palliative care are not the antipathy or nurses' unwillingness towards their professional activities being assessed, but practical and ethical difficulties in performing such an assessment. The analysis carried out in this research made it possible to evaluate the level of nursing care quality of palliative care with patients in the terminal stage. This evaluation shows that in four units the quality of nursing care is high and only in one unit, the third one, nursing care is at the level of 74.7%, with 100% being the maximum result. The above situation indicates the fact of patients' needs being not satisfied in over 25% of the required nursing care. Also, patients' quality of life concerning four main spheres: physical, psychological, locomotion activity and a general quality of life was evaluated. In the quality of life analysis, the examination time effect is extremely significant for varying the results in the subsequent time points ($p<0.001$) of evaluations, in all spheres of life quality in the case of patients in the terminal stage. These results confirmed the research studies carried out earlier by various scientists [3,10]. In physical and psychological RSCL spheres, it is possible to observe in the second and third examination a considerable and statistically significant improvement ($p<0.001$) as compared to the initial examination. However, because of a progressing disease, quality of patients' life in the spheres mentioned above becomes lower again in the final examination. The subsequent examinations indicate a gradual deterioration of the quality of life in the spheres of locomotion activity and a general quality of patients' life ($p<0.001$) in the situation when somatic symptoms inevitably exacerbate, patients' activity decreases – it is obvious and understandable that the evaluation of a general quality of life will produce less and less positive results. What was also noticed was a tendency ($p<0.1$) of the lower quality of life in the physical sphere in a group of patients where the quality of nursing care was at the lowest level (74,7%). It seems clear that there is no confirmation of a dependence between the quality of nursing care and the spheres of locomotion activity and a general quality of life. Gradually progressing disease irreversibly impairs patients' locomotion activity, which influences more and more negative patients' evaluation of life quality, even if the quality of nursing care is high. The evaluation of a general quality of life is the most subjective one, to a great extent resulting from patients' individual experiences. Also, patients' age or a basic disease type may become a dependant factor. Research results of Modlińska (2000) indicate that the most negative results of life quality evaluation are observed in the case of young people with terminal cancer, better results are obtained in the case of elderly people. General QL is evaluated in the most positive way by elderly people not suffering from cancer [11].

Conclusions

1. The analysis of r-Pearson linear correlation between the quality of nursing care and the quality of life in the case of patients in the terminal stage of a disease indicates that high level of nursing care in hospices influences better quality of patients' life in the physical and psychological spheres.
2. The improvement of patents' life quality in the psychical sphere can be observed after two weeks, and in the psychological sphere after the third week of hospitalisation.

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