

**THE PHARMACIST ROLE IN PATIENTS' QUALITY OF LIFE****Prof. Dr. Valentina Petkova\***

Faculty of Pharmacy, Medical University – Sofia, Sofia, Bulgaria.

Article Received on  
13 April 2018,Revised on 04 May 2018,  
Accepted on 25 May 2018,

DOI: 10.20959/wjpps20186-11867

**\*Corresponding Author****Prof. Dr. Valentina****Petkova**Faculty of Pharmacy,  
Medical University - Sofia,  
Sofia, Bulgaria.**ABSTRACT**

**Background:** In the recent decades the quality-of-life studies have revealed that the assessed data can produce vital information about patients' interaction with illness and their response to treatment. The aim of this review is to assess the possibility of pharmacists to use and measure the QoL as health professionals. **Methodology:** Analysis of the available on-line information were provided. Researched materials based on literature review are: literature data based on keywords in scientific databases: Scopus, Medline, Google Scholar, Springer and other documents studying the possibility of pharmacists to use information about QoL and to apply different disease-specific

instruments. The collected information was standardized in a table. **Results:** Researched materials based on literature review are: articles, abstracts, and others based on the connection between QoL and pharmacists. The results show that there are nine documents found that cover the topic. **Conclusions:** The performed analysis shows that pharmacists can successfully use and measure the QoL as health professionals. This additional function can improve patients; adherence and compliance, can make the patients better understand his duty for disease management and can lead to improving the patient outcomes.

**KEYWORDS:** Quality of life, pharmacists, chronic diseases.

**INTRODUCTION**

Quality of life can be described as a concept, to assess the effect of an event on the normal daily routine. Hutchinson et al. studies physical, social, and emotional dimensions.<sup>[1]</sup>

Flanagan listed 15 aspects in five categories: (1) physical and material well-being; (2) relations with others; (3) social, community, and civic activities; (4) personal development; and(5) recreation.<sup>[2]</sup>

Ware refers to five dimensions used to measure quality of life: disease, personal functioning, psychologic distress, health perceptions, and social/role functioning.<sup>[3]</sup>

In the recent decades the quality-of-life studies have revealed that the assessed data can produce vital information about patients' interaction with illness and their response to treatment. Now it is easier because of the creation and validation of variety of reliable disease-specific instruments.<sup>[4]</sup>

The aim of this review is to assess the possibility of pharmacists to use and measure the QoL as health professionals.

### METHODOLOGY AND MATERIALS

Analysis of the available on-line information were provided. Researched materials based on literature review are: literature data based on keywords in scientific databases: Scopus, Medline, Google Scholar, Springer and other documents studying the possibility of pharmacists to use information about QoL and to apply different disease-specific instruments. The collected information was standardized in a table.

### RESULTS

Researched materials based on literature review are: articles, abstracts, and others based on the connection between QoL and pharmacists. The results show that there are nine documents found that cover the topic.

Reference	Methodology	Conclusions
Ferrell Br et al. (5)	In the investigation are applied four instruments to evaluate the quality of life of patients in pain and to provide scales for concurrent validity. The first instrument, a demographic data tool, was used to describe the study sample. The second, a pain assessment tool, was developed to describe the patients' pain and to gain information regarding management of pain. This tool also included the Present Pain Intensity Scale of the McGill Pain Questionnaire. The Karnofsky Performance Status Scale was used as a third instrument. The fourth instrument, and the primary focus of this investigation, was the City of Hope Medical Center Quality of Life Survey	The use of quality of life as a measure of outcome in pain research enables the investigator to focus on the patient. Like pain itself, quality of life is an individual experience that can best be evaluated by the person experiencing it. The quality of life tool enables us to evaluate a given treatment not only with regard to its effect on pain intensity but also with regard to its overall impact on the total individual.

Holland, R et al. (6)	The search strategy identified research on medication review interventions involving pharmacists. Interventions were identified using a broad range of search terms and Medical Subject Headings (MeSH), including: medicine/ medication review, drug review, medicine management, drug adherence/compliance/concordance, and pharmaceutical care planning	Pharmacist-led medication review interventions cannot be assumed to reduce hospital admissions or mortality rates in older people but these interventions may improve drug knowledge and drug adherence, but insufficient data exist to know whether the latter affects patients' quality of life positively
Nadir M et al. (7)	The article discusses the place of QoL assessment in today's healthcare environment, with special emphasis on its use in the practice of pharmaceutical care.	Until a universal QoL instrument is developed for use in pharmaceutical care, disease-specific instruments, complemented in some cases with generic instruments and other outcome measures where appropriate, could prove useful as screening tools for individual patient situations, and not necessarily in a research environment. This should provide the pharmacist with reasonable baseline scores reflecting different QoL domains, and the extent to which these domains are affected by disease.
Pande S et al. (8)	The aim of this systematic review was to evaluate the effect of pharmacist-provided non-dispensing services on patient outcomes, health service utilization and costs in low- and middle-income countries.	The majority of included studies that compared patient targeted pharmacist intervention versus usual care supported the roles of pharmacists in improving the patient outcomes and health service utilization as well as delivering patient counselling and care regarding drug therapy and management of their disease condition.
Ramanath KV et al. (9)	This was a prospective randomized and interventional study conducted in the Medicine department of Adichunchanagiri Hospital and Research Center, B G Nagara, for a period of 7 months. Informed consent form, patient data collection form, questionnaires [Morisky Medication Adherence Scale (MMAS), Medication Adherence Report Scale (MARS), SF-12v2 Quality of Life (QOL) Scale, and patient satisfaction questionnaire (PSQ)] were applied.	This study showed that clinical pharmacist intervention among rural population has a very strong positive impact in creating awareness about the disease, and its maintenance by increasing their medication adherence and QOL
Abraham S et al. (10)	The main aim of the study is to evaluate the QOL of patients on HD and to compare the impact of counseling in these patients. A hospital-oriented prospective, longitudinal, observational comparative study was	Patient counseling plays an important role in improving the QOL by changing their psychological thinking and bringing them toward spirituality. This study also suggests that patient

	<p>conducted for six months in the nephrology department of a tertiary care hospital. Patients who were receiving HD regularly and aged between 20 and 80 years were included in the study. The patients' data relevant to the study was obtained from the patient and bystanders, and the data collection was made by questionnaire (WHO-BREF) administration and the patients' medical records.</p>	<p>counseling improved the QOL of patients with renal failure. Our study has several findings worth emphasizing. We observed that there is an increase in the average score of the test group when compared with the control group in all the four domains. The increase in average domain score was highest in the psychological domain followed by physical, environmental and social relationship domains. As most of the ESRD patients were depressed and worrying about their health condition, by removing their misconceptions about the disease, we observed an increase in the positive feelings of the patient. The spirituality level of the patients was also found to be increased; thereby, their concentration levels, thinking and learning power were also increased. As a result, they became more involved in their self-activities without any negative feelings.</p>
Smith M (11)		<p>However, the treatment will not succeed unless 3 newly recognized and essential criteria are met: (a) it must be possible to deliver the treatment to the patient in their own 'real world' (i.e. in the context of the patient's day-to-day lifestyle); (b) measures of outcome must be understandable and relevant to the patient, whose perspective is emotional and personal; (c) the net effect of a treatment must be perceived by the patient to be of functional benefit - in other words, patients are unlikely to accept a treatment, whatever its scientific merit, if they see nothing in it for themselves. Pharmacists have both an opportunity and a duty to understand that QOL issues play a significant part in patient compliance, and to use that understanding in the patient's best interest</p>
Kheir N et al. (12)	Sixty-two adult asthma patients (□□ years and older) living in two rural regions of	The results suggest that with appropriate training and support, New

	New Zealand, were segregated into two groups for phased introduction to the service. The patients acted as their own controls before they received the pharmacists' service. They had been diagnosed with asthma at least six months previously, and their asthma was symptomatic and not considered optimally controlled prior to the study	Zealand pharmacists can help asthma patients achieve greater quality of life. This research has implications for the introduction of Pharmaceutical Care services in other countries and for patients with other conditions who require ongoing management.
--	--	---

## DISCUSSION

The use of quality of life as a strong variable to assess the outcome disease management research enables the medical specialists including pharmacists to focus on the patient.<sup>[5,13]</sup>

Pharmacist-led medication review interventions cannot be assumed to reduce hospital admissions or mortality rates for all chronic diseases but these interventions may improve drug knowledge and drug adherence.<sup>[6,14]</sup>

Until a universal QoL instrument is developed for use in pharmaceutical care, disease-specific instruments could prove useful for individual patient situations. This should provide the pharmacist with reasonable baseline scores reflecting different QoL domains, and the extent to which these domains are affected by disease.<sup>[7,15-16]</sup>

Most of included studies that compared patient targeted pharmacist intervention versus usual care supported the roles of pharmacists in improving the patient outcomes and health service utilization as well as delivering patient counselling and care regarding drug therapy and management of their disease condition.<sup>[8]</sup>

Patient counseling plays an important role in improving the QOL by changing their psychological thinking and understanding the different aspects of the disease's management. And it can improve the QOL of patients with different chronic disease like diabetes, asthma, COPD.<sup>[10,17]</sup>

Pharmacists have both the opportunity and duty to understand that QOL issues play a significant part in patient compliance. The results suggest that with appropriate training and support, pharmacists can help chronic patients achieve greater quality of life.<sup>[11,18]</sup>

## CONCLUSION

The performed analysis shows that pharmacists can successfully use and measure the QoL as health professionals. This additional function can improve patients; adherence and

compliance, can make the patient better understand his duty for disease management and can lead to improving the patient outcomes.

## REFERENCES

1. Hutchinson A, Farndon J, Wilson R. Quality of survival of patients following mastectomy. *Clin Oncol*, 1979; 5: 391-2.
2. Flanagan, J. C. A research approach to improving our quality of life. *American Psychologist*, 1978; 33: 126-147. doi10.1037/0003-066X.33.2.138
3. Ware, J. E. Jr Conceptualizing disease impact and treatment outcomes. *Cancer*, 1984; 53: 2216–2326.
4. Ellwood PM. Shattuck lecture: Outcomes management, a technology of patient experience. *N Engl J Med.*, 1988; 318: 1549–56.
5. Ferrell BR, Wisdom C, Wenzl C, Schneider C. Quality of Life as an Outcome Variable in the Management of Cancer Pain *Cancer*, 1989; 63: 2321-2327.
6. Holland, R, Desborough, J, Goodyer, L, Hall, S, Wright, D, Loke, YK. Does pharmacist-led medication review help to reduce hospital admissions and deaths in older people? A systematic review and meta-analysis. *Br J Clin Pharmacol*, 2008; 65: 303–16.
7. Nadir M. Kheir, J.W. Foppe van Mil, John P. Shaw and Janie L. Sheridan. Health-related quality of life measurement in pharmaceutical care. Targeting an outcome that matters. *Pharm World Sci.*, 2004; 26: 125–12.
8. Pande S, Hiller JE, Nkansah N, Bero L. The effect of pharmacist-provided non-dispensing services on patient outcomes, health service utilisation and costs in low- and middle-income countries. *Cochrane Database Syst Rev.*, 2013; 2: CD010398.
9. Ramanath KV, Balaji DBSS, Nagakishore CH, Mahesh Kumar S, Bhanuprakash M. A Study on Impact of Clinical Pharmacist. Interventions on medication adherence and quality of life in rural hypertensive patients. *J Young Pharmacists*, 2012; 4: 95-100.
10. Abraham S, Venu A, Ramachandran A, Chandran PM, Raman S Assessment of quality of life in patients on hemodialysis and the impact of counseling. *Saudi J Kidney Dis Transpl*, 2012; 23: 953-957.
11. Smith M Medication, Quality of Life and Compliance the Role of the Pharmacist *Pharmaco Economics*, 1992; I(4): 225-230.
12. Kheir N, Emmerton L, Shaw J Can pharmacists influence health-related quality of life of patients with asthma? The New Zealand Pharmaceutical Care experience. *Sultan Qaboos University Journal for Scientific Research: Medical Sciences*, 2001; 3: 69–75.

13. V Petkova, K Andreevska, D Grekova, G Petrova Estimation of The Direct Cost of COPD In Bulgaria, Value in Health, 2016; 19(7): A553.
14. K Andreevska, D Grekova, A Todorova, V Madzharov, A Tsvetkova, V Petkova Assessment of Hypertension Patients' Adherence In Bulgaria–Pilot Study, Value in Health, 2017; 20(9): A503.
15. V Petkova, S Husain, N Lambov, K Andreevska, D. Grekova The Effect of Acne on The Quality of Life in Bulgaria-Pilot Study, Value in Health, 2016; 19(7): A618.
16. S Yordanova, V Petkova Pharmaceutical care in some European countries, Australia, Canada and USA, World J Pharm Pharm Sci., 2013; 2291-2308.
17. V Petkova Evaluation of the impact of a pharmaceutical care program on patients with asthma, J. Fac. Pharm. Ankara, 2005; 34(4): 251–262.
18. K. Tachkov, M Kamusheva, K Andreevska, D Grekova, K. Mitov Indirect costs associated with COPD in Bulgaria, Value in Health, 2017; 20(5): A204-A205.