



Original article

ISCHAEMIC STROKE PATIENTS AND PERSPECTIVES FOR HEALTHCARE PROVIDING

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ABSTRACT:

Contemporary health care (HC) practices have been extremely important, especially for patients after ischaemic stroke (IS) who have different degrees of disability and comorbidities.

Objective: To analyze the opinion of IS patients hospitalized in specialized clinics/wards regarding the identification of the specific HC needs and optimization of their management in the period of and after discharge.

Material and Methods: For achieving the objective, 114 patients were investigated, representing 22.2% of the response, who were hospitalized for treatment and rehabilitation in specialized clinics/wards on the territory of four medical facilities in the town of Pleven. The study required the use of a complex of sociological and statistical methods: a direct anonymous survey was conducted with questions specially prepared for the purpose to study the opinion, feelings, attitudes and evaluations of the respondents on the investigated issues.

Results: The greater share of the surveyed patients 83.3% (95), were dependent on care to varying degrees, and 57.9% (66) were definite that care at home should be supervised by a health professional. Home care for 85.1% (97) of the respondents would be provided by close relatives. Over half of the patients surveyed, 60.5% (69), believed that written home care instructions were required.

Conclusion: Despite the preference of the ischaemic stroke patients to be cared for by their relatives, they woke up to the need for written guidelines, training and supervision from a health professional/nurse regarding their recovery at home.

Keywords: stroke, healthcare, needs,

INTRODUCTION:

Ischaemic strokes accounted for 88% of all strokes. They had been the most common acute disorders of cerebral circulation, and the mortality rate due to them was 12% (Milanov, I., P. Stamenova, 2020) [1,2,3].

Care for IS patients had been distinguished by its specificity and multidisciplinary approach. Healthcare was of extreme importance for the disease outcome both in the acute stage and in the period after discharge [4]. Concomitant diseases (high blood pressure, atrial fibrillation, diabetes mellitus, hyperlipidemia, etc.) were one of the factors determining specific needs and HC. The general and special HC for patients who had survived IS did not differ significantly between countries in terms of their nature. The differences were mainly in relation to the HC management, i.e. in planning, organizing, coordinating, supervising and documenting care both in the ward/clinic and in the post-discharge period [5].

Healthcare organization in Bulgaria for IS patients had been reduced to the strict implementation of the algorithms described in the clinical pathways (CP), the medical standards and the general practitioners' activities. Healthcare was a highly significant part of treatment, rehabilitation, prevention and health promotion, however, in Bulgaria, healthcare activities were partially recorded in different forms. There was still no unified regulation for the complete recording of care provided on the basis of the needs, as well as for the registry form. Healthcare planning as an element of the nursing process was not officially implemented in practice in Bulgaria, which called into question the application of the holistic approach in healthcare providing for these patients and the possibility of evaluating the quality of the health services offered. Thus it could be argued that in relation to HC in Bulgaria, there was a serious deficit of professional health management in the system [5]. The specificity of stroke patients also implied definite competencies of health professionals/nurses providing care for these patients. They were expected to have background and skills that included not only fundamental knowledge of general and special care but also managerial skills for planning, organizing, coordinating, leading, controlling and evaluating both in inpatient and outpatient settings [6]. In order to optimize the care of IS patients, various projects and initiatives of leading organizations in Europe and the world had been worked

out and implemented: the Angels Project and the ESO EAST Programme of the European Stroke Organization (ESO); World Stroke Organization (WSO); European Stroke Organization (ESO), etc [7].

The **objective** of the study was to analyze the specific healthcare needs of IS patients and to optimize their management during and after discharge.

To achieve the main goal of the study, the following **tasks** were set:

✓ To differentiate the health care needs and problem areas in their provision for IS patients in the inpatient and outpatient care in Bulgaria.

MATERIAL AND METHODS:

Material: It was intended 514 persons who had survived ischaemic stroke be included in the study. However, only 114 patients responded to the survey (22.2% response), at the time of the survey were hospitalized for treatment and rehabilitation in Neurology clinics/wards and Physical and Rehabilitation Medicine wards at UMPHAT – Pleven, MPHAT – Avis Medika – Pleven, MPHAT – Saint Pantaleimon – Pleven, MPHAT – MMA – Pleven. The study covered the period 2016 – 2020.

The aim of the research required the use of a set of sociological and statistical methods:

Sociological methods:

Survey method – to achieve the objective of the study a survey card was used. It consisted of closed questions especially drawn up for patients who survived an ischaemic stroke and included 22 closed questions, 5 of them for identification.

The questionnaire survey was anonymous among IS patients hospitalized in Neurology and Physical and Rehabilitation Medicine clinics/departments.

The questionnaire was focused on the opinion of patients who had survived a brain stroke and were hospitalized in the specialized clinics/wards for treatment and rehabilitation, regarding their satisfaction with the care provided to them and the need for such at home.

Documentary method: It was used for collecting information on the structure and organization of health care in hospital and outpatient conditions for patients who had survived an ischaemic stroke. For the information organization, a special questionnaire was developed which is available from the author.

Statistical methods: The results were processed with SPSS 25.0 and Microsoft Excel 2010. The results from the questionnaires were processed using Excel 2010 and SPSS v. 25.

The data in the questionnaires were in the form of qualitative variables that were processed by means of the following statistical methods:

✓ Descriptive statistical methods – for summarizing qualitatively measurable data. The results were presented in frequency tables in number and percentage.

✓ Non-parametric tests – the Mann-Whitney test

when comparing two samples and Kruskal-Wallis when comparing more than two samples; χ^2 criterion for establishing the correlation between two variables, as the correlation strength was estimated by coefficients Phi and Cramer's V. $p < 0.05$ was assumed to be statistically significant.

✓ Graphical analysis – MS Excel for Windows 2010 was used for the graphical presentation of the results.

RESULTS:

The distribution of the covered patients from the four medical facilities in the town of Pleven by gender, age, education and place of residence is presented in table 1.

Table 1. Main characteristics of IS patients (number / %)

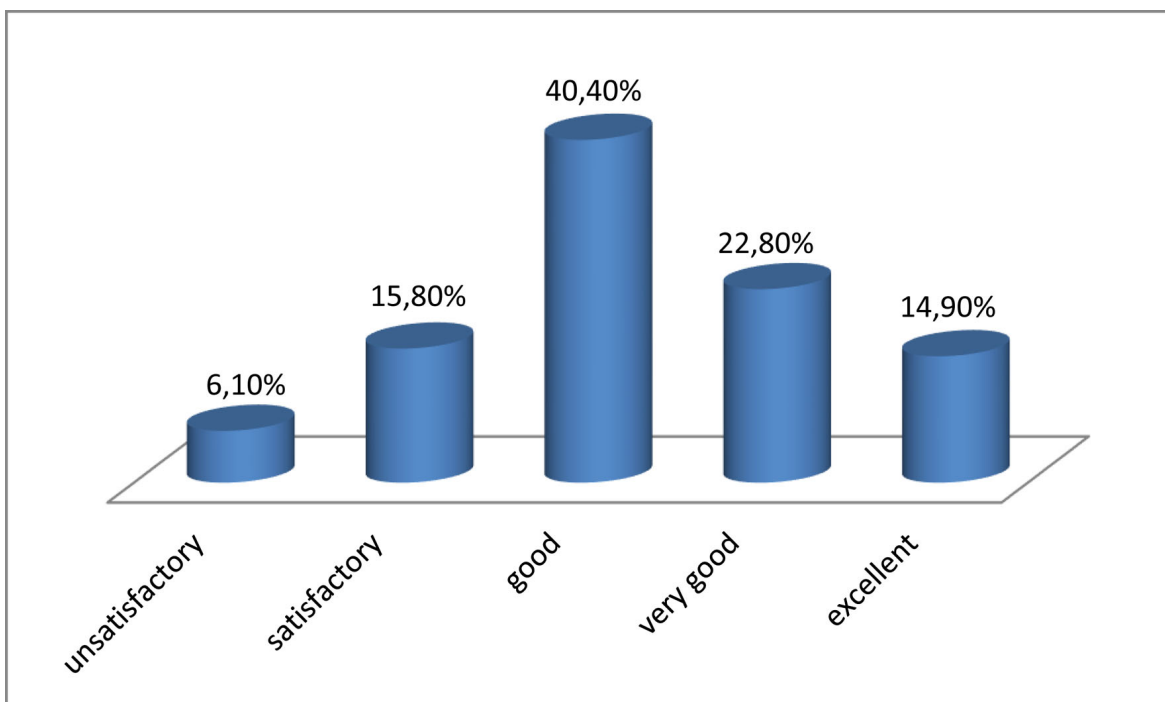
Variables	Number	%
Sex	114	100.0
Male	56	49.1
Female	58	50.9
Age 114	100.0	
Below 35 years old	1	0.9
From 35 to 55 years old	14	12,3
Over 55 years old	99	86.8
Education	114	100.0
Elementary	3	2,6
Primary	19	16,7
Secondary	66	57.9
Higher	25	21,9
No education	1	0.9
Permanent residence	114	100.0
Village	54	47.4
Town/City	60	52.6

The percentage of patients who had a cerebrovascular accident for the first time was higher 73.7% (84), and 89.5% (102) stated that they were admitted to a medical institution immediately after being diagnosed With an ischaemic stroke. The remaining 10.5% (12), who were not hospitalized immediately, answered that they were taken care of by: relatives 33.3% (4) who kept in touch with the GP; GPs 25% (3) and 41.6% (5) said they took care of themselves because their stroke was mild.

According to 44.7% (51), they needed a person to be with them around the clock and help them in their daily routine activities. 25.4% (29) said they needed help sometimes, the remaining 29.8% (34) considered that they did not need any assistance.

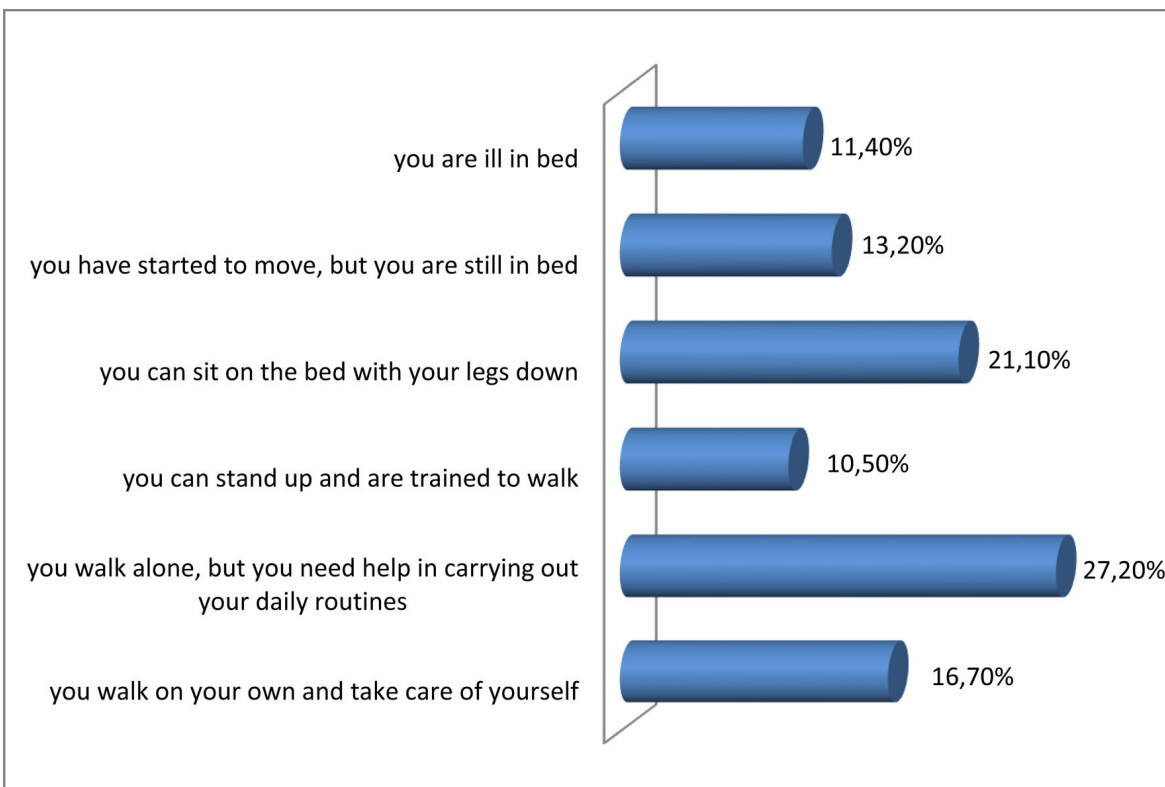
The patients were required to make a comprehensive assessment of the care provided to them by the nurses in the ward where they were admitted for treatment, Fig.1.

Fig. 1. Comprehensive assessment of the patients regarding the care for them in hospital conditions (%)



The patients were given the opportunity to determine alone their condition to the present, Fig. 2

Fig. 2. Self-assessment of the patients regarding their condition at the moment in the ward (%)

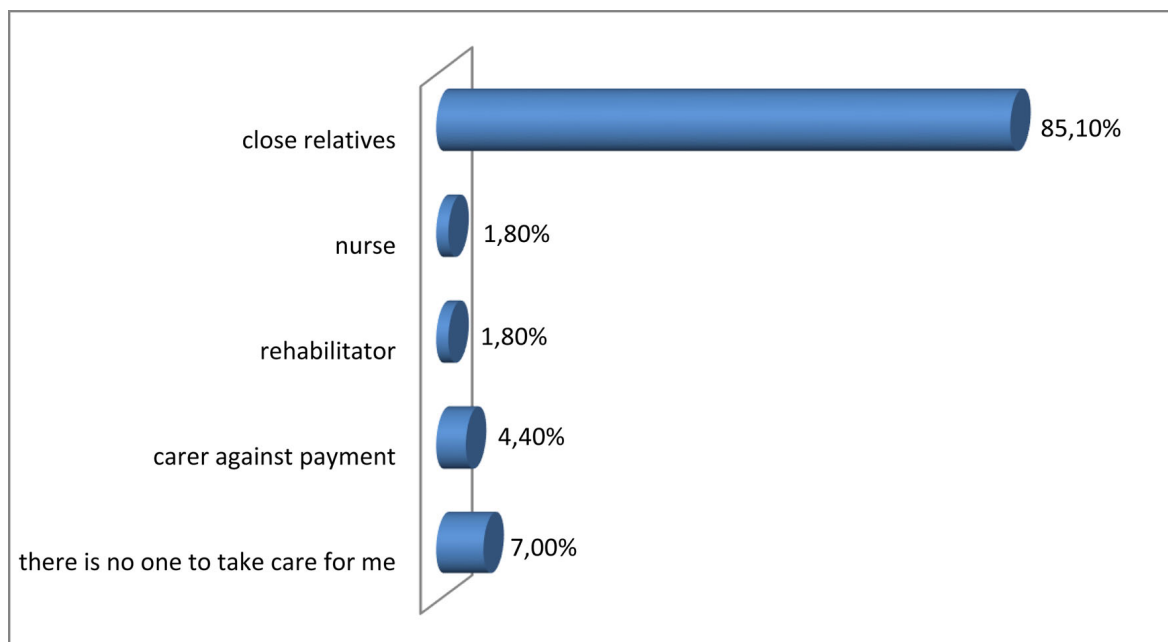


Approximately two-thirds of the respondents 79.8% (91), after discharge from the hospital, would recover at home, 17.5% (20) in the home of close relatives, and 2.6% (3) in a hospice. Regarding the patients' confidence and their

mental peace, 67.5% (77) felt calm about their recovery, two of them did not answer, and 30.7% (35) were negative.

Figure 3 shows the patients' preferences regarding the persons who will care for them in outpatient settings (%).

Fig. 3. Preferences of IS patients regarding persons who will care for them at home (%)



Hygiene care had been very important for the recovery of IS patients, especially for those on the first hospital stay, 43% (49) of the respondents shared that their personal hygiene was taken care of by nurses. The second place regarding maintenance of personal hygiene was taken by the orderlies 36% (41), followed by a close relative 18.4% (21) and a paid carer 2.6% (3).

According to 44.7% (51), they needed a person to be by their side and help them with their daily routines, 25.4% (29) claimed that they sometimes needed help, and the remaining 29.8% (34) did not need physical assistance. Regarding the need for written guidelines for home care, 60.5% (69) of patients considered that they had such a need, 39.5% (45) answered “no”.

DISCUSSION:

After the results processing, on the basis of the retrospective data on patients being treated in the clinical bases included in the study, it was planned 514 survivors of an ischaemic stroke be interviewed. With a view of the objective circumstances, 114 patients were covered (22.2% response), who at the time of the study were hospitalized for treatment and rehabilitation in clinics/wards of neurology and physical and rehabilitation medicine at UMPHAT – Pleven, MPHAT – Avis Medika – Pleven, MPHAT – Saint Pantaleimon – Pleven, MPHAT – MMA – Pleven.

The relative share of females among IS patients participating in the study was higher. The relative share of those taking part in the study was the highest in the age group over 55 years, followed by the age group from 35 to 55 years. It was noteworthy that the distribution of the surveyed IS patients by age group corresponded to the global and European trends, regardless of the trend of “rejuvenating” the age of those affected by ischaemic stroke. In our

study, there was only one case under the age of 35. In the study, patients with secondary education predominated, followed by higher education. Only a small part of the respondents had primary education and 0.9% had no education.

The education, age and gender of the individuals were important factors that health professionals should consider when applying an individual approach to the patient.

Over half of the respondents lived in a city/town, the rest – in the countryside. The place of domicile influenced both lifestyle and management (organization, coordination, control) regarding patient follow-up care after discharge. The problem in the remote settlements or rural areas was that rehabilitation was difficult to be implemented and there was a risk of a shortage of professional care. For patients with motor deficits, one of the problems was related to the transport to a specialized rehabilitation department and carrying out follow-up examinations, as well as the difficulty for a specialist to visit the patient at his/her home.

A greater percentage of patients did not have experience in dealing with the new health condition, based on the fact that they had a vascular accident for the first time. The better news was that over two-thirds of the respondents had received immediate professional help and care. More worrying was the fact that from the small part of the studied group who did not have immediate hospital care, 10.5% (12) relied on close relatives consulted by a GP and those who chose to take care of themselves.

Almost half of the hospitalized patients assessed the need to be cared for by a competent person during their stay in the clinic/ward. On a five-point scale comprehensive assessment of the care provided by the nurses, the patients rated them on average as “good” followed by “very

good". The excellent rating was second to the last, which was a reason for optimizing healthcare and further efforts in this aspect.

The patient's real assessment of their condition and their're coping with the daily activities was impressive. The highest share, 27.2% of the patients could walk independently and needed help in dealing with self-care activities. A smaller percentage of the respondents could sit up in bed with their legs down and were more dependent on care. It was remarkable the share of patients who were in bed in the first hospital regime, 11.45%. This important ratio of respondents required strict professional, competent behavior to ensure a good outcome of the status. Nursing globally had proven the benefit of applying planned care where the nurse collected, analyzed, diagnosed, set goals and planned care, that was recorded and thus the patient's nursing dossier was formed. Therefore the care given to the patient in the ward was documented, formalized and served as evidence for the continuation of care after discharge. All that constituted the nursing process, the curve of which must be upward in achieving the desired results.

Almost two-thirds of the respondents would recover at home after discharge, and approximately the same ratio felt relaxed about their recovery. A problem was the share of patients who were negative about their recovery, they represented less than a third of those surveyed. The response of 7.0% (8) having no one to take care of them was disturbing, and less than 2% of the patients were convinced that they would be taken care of by a nurse. A very impor-

tant point in the patient's recovery was his/her cooperation and belief in healing, which also imposed the need of cooperating with other specialists.

The patients' training was part of the successful recovery and overcoming the consequences of an ischaemic stroke, 66.7% (76) of the respondents shared that opinion; the remaining 33.3% (38) claimed they did not need it. The care of IS patients at home should be guaranteed by well-trained health professionals, that had been proven by global and European nursing practice.

These patients often became depressed and not motivated about coping and treatment. Nurses would play a key role in finding such patients' conditions and developing a plan that included an algorithm of actions and behaviors to positively change the patient's attitudes.

CONCLUSION

Regardless of the patient's choice after discharge, general and special healthcare had been an obligatory element in the patient's continued treatment. The patient and his/her family would expect a sufficient duration of care and follow-up of its effect by a relevant specialist. In modern global and European practices, continuous efforts were being made to improve the quality of these health services through adequate management [8, 9, 10, 11].

Abbreviations:

IS – Ischaemic stroke

HC – Healthcare

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