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Shaping of psycho-social independence in neurological patients

The scope of knowledge concerning correct nutrition covers the problems of health promoting diet, food ingredients indicated and contraindicated in an individual disease, importance of saturated and unsaturated fatty acids, total cholesterol and its fraction, cellulose and the diet providing the state of balance between the demand for calories and their intake (14, 15).

Physical activity was understood as its favourable effect on health and negative consequences of the lack of this activity (1, 2, 5, 6, 9).

The consumption of alcohol, strong tea and coffee, was the parameter which covered the atheromatous effect of tobacco, impaired respiratory mechanisms, negative consequences of smoking in individual diseases, as well as the negative effect of the consumption of alcohol, strong tea and coffee (8, 14, 15).

The subsequent research problem was the determination of the level of knowledge concerning the pathological effect of stress, increase in arterial blood pressure caused by the release of hormones (adrenaline), decreased immunity, release of glucose and cholesterol from the liver (the mechanism of atheromatous effect of stress), increased perspiration, a growing feeling of anger and aggravation which is conducive to cardiovascular diseases. The methods of coping with stress are: avoiding stress-inducing situations and factors which supposedly reduce stress and actually increase the susceptibility to it (cigarette smoking, alcohol consumption, and excessive food intake), capability for regeneration of the organism through proper leisure, psycho-physical activity, as well as positive thinking (2, 4, 5, 11).

Coping with the disease consisted in the knowledge of risk factors, controlling the functions of respiratory and cardiovascular systems in bed-ridden patients, prevention of muscular contractures and atrophy, as well as spasticity (cerebral stroke and multiple sclerosis), intention tremor and non-physiological fatigue (multiple sclerosis), regulation of excretion procedure in uninhibited bladder (stroke), urinary incontinence and reten-

tion of urine (multiple sclerosis), elimination of constipations in immobilised patients, procedures in the hemi-neglect syndrome (cerebral stroke), as well as the knowledge of the body mechanics in radicular syndromes (1, 2, 3, 5, 6, 8, 9, 10, 12, 13).

An interesting research problem was the determination of the degree of health promoting skills acquired by patients. These skills are: measurement of arterial blood pressure, calculation of the BMI index, and the interpretation of the results of laboratory tests (4,1 4). Motivation consisted in the determination of the level of readiness to undertake tasks on behalf of supporting health, as well as mental and physical activity, and showing positive effects of accepted health promoting behaviour (7, 11). Self-acceptance concerned the determination of its level – acceptance of the consequences of the disease/disability and tendency to minimise these consequences by participating in nursing-rehabilitation procedures, as well as life optimism and positive thinking (7, 11).

The study of social functioning was based on defining the relationship between the patient in the study and his/her family and friends, as well as the continuation of occupational activity or education (7, 8, 9).

Intellectual skills were analysed in the aspect of verbal communication, functioning of thinking and memory, as well as orientation in space. In the study it was assumed that the verbal contact was normal (7, 8, 9).

The above-mentioned elements were subject to analysis and their degree determined by means of score-scale. The following criteria were adopted: a) very high level – 3 scores (knowledge, skills and other psycho-social aspects – attained from 75.0% -100.0% of the required scope of the elements mentioned); b) high level (degree of acquiring knowledge, skills and the remaining elements from 50.0%–74.0%), a patient requires instruction and emotional support; c) medium level (from 25.0%–74.0%), a patient requires education and emotional support; d) low level (from 0.0%–24%), a passive patient who has low levels of knowledge, motivation, self-acceptance, social functioning and intellectual skills.

OBJECTIVES

The aim of the study was the determination of the degree of psycho-social independence among patients in the study. The Neurological Patient's Psycho-Social Independence Scale was applied in the study. The Scale was developed by the author of the present paper and was subject to preliminary verification in nursing practice. It consists of intentionally selected parameters concerning psycho-social functioning of a patient. This is a 4-degree scale, considering the sum of parameters the maximum number of scores being 27, while the minimum number – 0 score. The evaluation based on this Scale consists in the determination of patients' psycho-social independence.

The study was conducted in the Clinic of Neurology, at National Hospital No. 4 in Lublin, from October 1999 till May 2000. The study was conducted twice, at the beginning of hospitalization and after a certain period of conducting health education, usually

at the end of hospitalization, among patients with various diseases but with good verbal contact. The study covered 120 patients – 51 males and 69 females, aged 21-72, 34 unmarried and 86 married, with the following level of education: elementary school – 33, secondary school – 79, and university – 8, who had the following diseases: cerebral stroke – 67, multiple sclerosis – 31, and radicular syndrome – 22.

RESULTS

The results obtained during Stage 1 of the study show a relatively low level of health education – the medium level had dominated before educational activities. During Stage 1 of the study knowledge concerning nutrition most often remained on the medium level, and 43.4% had the proper knowledge at Stage 1, whereas during Stage 2 the greatest number (40.9%) of patients had a very high level of this knowledge, followed by a considerable percentage of those with a high level (30.8%), and the smallest percentage of patients with a low level. An increase by 28.3% was observed in a number of patients with the very high and high level of knowledge.

During Stage 1 the knowledge of the importance of the physical activity remained mainly on the medium level, while at Stage 2 this level was very high or high among the majority of respondents (Stage 1 – 47.5% but at the second Stage – 67.5%). A high percentage of patients still represented the medium level, whereas a smaller number of respondents showed a low level of knowledge. An increase observed in the percentage of patients with a very high or high level was 20.0%.

Knowledge related to the consumption of alcohol, strong tea and coffee remained around the very high and high level at both Stages 1 (73.3%) and 2 (80.9%) of the study. During the final stage of the study a low level was not noted. Due to the fact that the patients had a very high or high level of knowledge already during Stage 1 of the study, the number of patients with correct knowledge increased by only 7.6%.

The studies of the problem of stress showed that during Stage 1 the highest percentage of patients represented the medium level, while at Stage 2 – a very high level. A significant increase was observed in the number of respondents with a very high and high level – by 43.3% (Stage 1 – 25.0% and Stage 2 – 68.3%), although many patients still had a poor knowledge of the problem which remained on the medium or low level.

Generally an increase observed in the number of patients with the very high and high level was 24.9%.

At Stage 1 of the study the majority of respondents showed medium or low level of capability to cope with the disease – 69.2%, while during Stage 2 the percentage of patients with medium level was still considerable, as well as the percentage of those with a high or very high level. The level of capability to cope with the disease was low only in 8.3% of patients in the study. The number of patients with a very high or high level of skills increased by 27.5%.

During both the first and the second stage of the study self-control skills remained most frequently on the medium level, this was because learning the technique of the measurement of arterial blood pressure created the greatest difficulties for the patients. These skills were attained by only 19 from among 57 patients who underwent cerebral stroke, for whom the knowledge of this technique is one of the elements of preventing a recurrence of the disease. At Stage 2 of the study the percentage of respondents with a very high or high level of these skills increased by 17.5%.

The subsequent research problem was the determination of the level of motivation. This level was mainly medium or high during the Stage 1 of the study, while during the Stage 2 it was high or very high. A small group of the patients examined had a low level of motivation – 5.0% – this percentage being the same for both studies – which means that we failed to motivate these respondents and provide them incentives to undertake actions in order to attain the optimum psycho-physical independence. The population with a very high or high level of motivation increased by 22.5%.

The population representing primarily the medium level of self-acceptance during Stage 1 of the study obtained a very high level in the second study. A relatively large number of respondents showed a very high level of self-acceptance, but only at Stage 2 of the study. Only 7 people who could not accept the situation of illness and disability had a very low level of self-acceptance. Therefore, an increase in the level of self-acceptance (very high or high) was observed in 35.1% of patients in the study.

Social functioning most often remained on the medium level at Stage 1 of the study, whereas during Stage 2 the majority of respondents showed a very high or high level. The population with a very high and high level of social functioning increased by 30.0%. A decrease was noted in the number of patients with a medium or low level of social functioning, although a relatively high percentage of respondents still showed a low level.

An increase in the number of patients who had a very high or high level of this skill was rather small – 10.0% which was due to the fact that at Stage 1 of the study a large percentage were intellectually efficient.

Summing up, during Stage 1 of the study 19.3% of respondents on average (SD ~9.2) showed the highest level of psycho-social independence, while at Stage 2 – 34.5% (SD~5.5); high level: 25.7% (SD~6.1) – Stage 1, and 35.3% (SD~5.1) – Stage 2; medium level: 40.3% (SD~8.7) – Stage 1, and 22.4% (SD~6.4) – Stage 2; and low level: 14.7% (SD~8.7) – Stage 1 and 7.8% (SD~2.9) – Stage 2.

In general, a considerable improvement was noted with respect to patients' attaining psycho-social independence which was confirmed by the results obtained during Stage 2 of the study. Nearly two-fold increase was observed in the number of respondents with a very high level of independence, and the number of those who showed a high level increased by approximately one third, which was accompanied by an equivalent decrease in the number of patients with medium and low levels.

DISCUSSION

Due to the educational actions an increase was noted in health promoting knowledge and skills among a high percentage of respondents who during the Stage 2 of the study obtained a very high or high level of psycho-social independence with respect to its individual components presented by means of the mean values.

The following percentage of patients possessed the proper knowledge of individual parameters: 1) knowledge concerning correct nutrition: Stage 1 – 43.4%, and Stage 2 – 71.7%, increase by 28.3%; 2) physical activity: Stage 1 – 47.5%, and Stage 2 – 67.5%, increase by 20.0%; 3) consumption of alcohol, strong tea and coffee: Stage 1 – 73.3%, and Stage 2 – 80.9%, increase by 7.6%; 4) stress: Stage 1 – 25.0%, and Stage 2 – 68.3%, increase by 43.3%; 5) procedures in illness: Stage 1 – 30.8%, and Stage 2 – 58.3%, increase by 27.5%; 6) motivation: Stage 1 – 57.5%, and Stage 2 – 80.0%, increase by 22.5%; 7) self-acceptance: Stage 1 – 40.8%, and Stage 2 – 75.9%, increase by 35.1%; 8) social functioning: Stage 1 – 45.0%, and Stage 2 – 75.0%, increase by 30.0%; and 9) intellectual skills: Stage 1 – 47.5%, and Stage 2 – 57.5%, increase by 10.0%.

The greatest increase in knowledge was observed with respect to the consequences of stress and coping with it – by 43.3%, whereas the smallest – with respect to the consumption of alcohol, strong tea and coffee – by 7.6%. Among the remaining aspects of psycho-social independence the greatest improvement was noted with respect to self-acceptance – by 35.1%, which confirms that the education of patients favourably affected their acceptance of themselves and care about the quality of life. Almost the whole study group was motivated to work by themselves, apart from 6 people (5.0%) who showed a passive attitude.

The greatest increase in the number of patients was observed with respect to those representing a very high level of independence, whereas the greatest decrease was noted among respondents with a low level; i.e. the greatest changes took place within the extreme categories and were desirable.

In general, during the final stage of the study, population which represented a very high and high level of psycho-social independence was noted by 70.6%, an increase by 25.0% compared to the first stage of the study, accompanied by an equivalent decrease in the number of respondents who showed medium and low levels, due to their attaining higher categories of psycho-social independence.

Although at Stage 2 of the study the greatest number of respondents represented a very high level of independence, the number of those with a medium level was still great, although a low level also occurred.

Providing for systematic health education based on a thoroughly prepared education programme is a fundamental factor which results in an improvement of the psycho-social independence of the neurological patients.

CONCLUSIONS

1. Health education is an essential factor in the improvement of patients' psycho-social independence.

2. The greatest increase in independence was noted with respect to knowledge concerning stress, while the smallest – with respect to the consumption of alcohol, strong tea and coffee; the greatest increase concerned the level of self-acceptance, whereas the smallest – the improvement of intellectual skills.

3. Health education favourably affected the development of such parameters as motivation, self-acceptance and social functioning.

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SUMMARY

The aim of the study was to determine the degree of psycho-social independence among neurological patients. The study was conducted by means of the Neurological Patients' Psycho-Social Independence Scale developed by the author, and covered 120 patients – 51 males and 69 females aged 21–72; unmarried – 34 and married – 86, with the level of education: elementary – 33, secondary school – 79 and university – 8; who had cerebral stroke – 67, multiple sclerosis – 31, radicular syndrome – 22.

During the first stage of the study psycho-social independence remained primarily on the medium level with respect to the knowledge concerning life style, apart from the consumption of alcohol, strong tea and coffee, the patients showing a good knowledge of this problem prior to the implementation of the education programme. With respect to skills and the remaining psycho-social aspects (motivation, self-acceptance, social functioning, intellectual efficiency) the respondents represented primarily a very high or high level during the second study. Unfortunately, a considerable number of patients still showed a medium or low level. Population who represented a very high and high levels of psycho-social independence, increased by 25.0%.

Kształtowanie psychospołecznej niezależności pacjentów neurologicznych

Celem pracy było określenie poziomu niezależności psychospołecznej przed wprowadzeniem programu edukacyjnego i po nim. Przebadano 120 chorych, w tym 51 mężczyzn i 69 kobiet w wieku od 21 do 72 lat, stanu wolnego - 34 i małżeńskiego - 86 osób, 33 badanych z wykształceniem podstawowym, 79 - średnim i 8 - z wyższym. Po udarze mózgowym było 67 pacjentów, ze stwardnieniem rozsianym - 31, z chorobą Parkinsona - 7 i z zespołem korzeniowym - 15 chorych. W pierwszym badaniu niezależność psychospołeczna utrzymywała się głównie na poziomie średnim w zakresie wiadomości na temat stylu życia, z wyjątkiem używek, gdzie wykazano się dużą wiedzą jeszcze przed edukacją. Odnosnie do umiejętności oraz pozostałych aspektów psychospołecznych (motywacja, samoakceptacja, funkcjonowanie społeczne, sprawność intelektualna) badani reprezentowali

przeważnie poziom bardzo wysoki i wysoki w badaniu drugim. Znacząca populacja niestety nadal wykazywała poziom średni, a także niski. Populacja reprezentująca bardzo wysoki i wysoki poziom niezależności psychospołecznej wzrosła o 25,0%.