Social functioning of elderly persons with malignant diseases

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Abstract

Background/Aim. Malignant disease, its treatment and consequences of treatment can often lead to social marginalization and reduced quality of life. The aim of this research was to determine how elderly patients with malignant diseases function in their social environment. Methods. Sociodemographic questionnaire and interview were used to investigate a group of 49 elderly persons undergoing adjuvant chemotherapy treatment against early carcinomas (P1), and a group of 51 elderly persons with advanced stages of cancer undergoing systemic chemotherapy (P2). There were two cycles of assessment: one just before the beginning of the first cycle of adjuvant or systemic chemotherapy, and the other three months later. The research paradigm was based on the relation between individual treatment and the impact of the malignant disease on functional and social incompetence. The obtained findings were compared with the group of 50 healthy elderly people (K) who share the same relevant features but do not suffer from malignant diseases. Results. It was found that most healthy older people live in share house, whereas those who suffer from malignant diseases mostly live in separate households. In both groups of patients and healthy group older people are mostly taken care of by their children. Individuals in both groups of patients have been frequently visited by their relatives during initial stages of treatment, unlike the elderly people in the control group. However, the difference did not reach a statistical significance. Three months after the beginning of chemotherapy, there was a statistically relevant difference in favor of the group undergoing adjuvant treatment. Home visits eventually become less frequent, whereas communication by telephone becomes more frequent. It was also found that visits by friends and neighbors are statistically more frequent among subjects who undergo adjuvant treatment, both before the treatment began and three months later when compared to other groups. Conclusion. Our research shows that elderly people are subject to social exclusion, especially those with malignant diseases. Special care should be dedicated to monitoring of social functioning during treatment of patients with malignant disease considering the detected trend of deterioration and significance for further recovery and cure.

Key words: old age assistance; neoplasms; patient care; social support; social behavior.

Apštrakt

Uvod/Cilj. Maligne bolesti, njihovo lečenje, kao i posledice tretnja mogu često dovesti do socijalne marginalizacije i pogoršanja kvaliteta života. Cilj našeg istraživanja bio je da se proceni funkcionisanje starijih osoba bolelih od malignih bolesti. Metode. Sociodemografski upitnik i metod intervjua su korisnici za istraživanje grupe od 49 starih osoba koje su se nalazile na adjuvantnom hemoterapijskom lečenju (P1), a grupa od 51 starih osoba koje su se nalazile na adjuvantnom hemoterapijskom lečenju (P2). Istraživanje je sprovedeno kroz dva testiranja: prvo testiranje vršeno je neposredno pre početka tretnja, a drugo testiranje tri meseca kasnije. Istraživačka radnica bila je zasnovana na relaciji individualnog lečenja i posledica koje maligna bolest izaziva u oblastima funkcionalne i socijalne inkompetencije. Dobijeni rezultati poređeni su sa kontrolnom grupom od 50 starih osoba (K), istih karakteristika, ali bez malignog oboljenja. Rezultati. Utvrđeno je da većina starih zdravih ispitanika živi u zajedničkim domaćinstvima sa decom, dok ispitanici iz grupe oboljelih od malignih bolesti češće žive u samostalnim zajednicama. U sve tri grupe brigu o starima najčešće su vodila deca. „Česte“ posete rodline imale su obe grupe bolelih na početku lečenja, za razliku od kontrolne grupe starih osoba. Ipak, ova razlika nije bila statistički značajna. U drugoj proceni, tri meseca od početka lečenja, dobijena je statistički značajna razlika u korist grupe na adjuvantnom lečenju. Kako vreme prolazi smanjuje se kućne posete, a povećava se komunikacija telefonom. Takođe, utvrđeno je

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da su posetci prijatelja i komšija statistički značajno učesta-
lije kod ispitanih koji su na adjuvantnom lečenju, kako pre
otpovijedanja tretmana, tako i tri mjeseca nakon lečenja, u
odnosu na ostale ispitivane grupe. **Zaključak.** Naše istraži-
vanje pokazalo je da je socijalna isključenost prisutna u sta-
rijem dobu, a posebno kod oboljelih od malignih bolesti.
Posebnu pažnju potrebno je posvetiti praćenju socijalnog
funkcioniranja tokom lečenja oboljelih od malignih bolesti,
s obzirom na uočenu tendenciju njegovog pogoršanja i
značaj za dalji oporavak i izlečenje.

**Ključne reči:**
stare osobe, pomoć; neoplazme; nega bolesnika;
socijalna podrška; socijalno ponašanje.

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**Introduction**

Elderly people suffering from malignant diseases pose a
huge medical, economic and social problem in every society,
including Serbian. Bearing in mind that 60% of patients suf-
ferring from malignant diseases fall into this group efforts to
integrate them into social environment seem quite justi-
ified. Successful social integration of these people implies
their participation in family life and social environment,
which is of immense importance for society.

Malignant disease, its treatment and the consequences
treatment can often lead to social marginalization and re-
duced quality of life. Regardless of the evident progress in
prevention, diagnostics and treatment of malignant diseases,
most people still think that the words like “cancer” or “ma-
lignant disease” mean suffering, pain and death. Prejudice
against cancer causes intensive psychological/emotional re-
actions and raise deepest existential fears, i.e. fear of death,
of suffering and pain, uncertainty, change person’s percep-
tion of future and life, raise fear of separation from beloved
ones and from his/her social environment, fear of marginali-
ization and of being stigmatized.

The stigma of malignant diseases comes from the his-
torical and cultural idea of the unfortunate outcome, painful
procedures used in diagnostics and treatment, as well as bad
prognosis. The stigma that patient's family and the pa-
tient himself/herself will experience certainly depend on the
environment in which the family lives, their level of educa-
tion, culture, religion, prejudice and misapprehensions asso-
ciated with malignant diseases.

Malignant disease can cause certain changes which
pose potential threats and obstacles in everyday life of old
persons and causes difficulties in their everyday functioning.
People suffering from malignant diseases have their life
plans shattered, experience changes in body schemes and in
self-respect, change in social roles and lifestyle, concerns
about money and financial status, and their everyday habits
and other aspects of life become different (diet, physical
ability, mobility, personal hygiene, communication, interper-
sonal relations etc.).

Malignant disease and adverse effects of its treatment
pose risk factors in the development of functional, cognitive
and depressive symptomatology and psychiatric morbidity.
The group which is particularly exposed to a higher risk of social exclusion and psychiatric morbidity
comprises patients in late stages of malignant diseases, with
bad performance status and bad pain control.

This research included patients whose cancer treatment
had just begun, both adjuvant and systemic, and whose per-
formance status and quality of life were good. Adjuvant can-
cer treatment follows radical surgeries in which the entire
tumor mass has been recently removed, or radiation therapy
delivered with curative intent. Systemic treatment is applied
different stages of malignant disease. Depending on the
stage of the disease and specific results expected after the
treatment, it is possible to apply several kinds of systemic
treatment. The aim of cancer treatment is to extend the
patient’s life, to improve the quality of his/her life and to re-
duce the symptoms of the disease. Recent researches have
shown that adjuvant or systemic chemotherapy in elderly pa-
tients can be of benefit in terms of survival and overall qual-
ity of life.

Malignant disease and its treatment can further make
worsen the problems and changes caused by the process of
ageing (e.g. chronic diseases, changes in physical appear-
ance, weakness of muscles, changes in bones, weak eyesight,
poor hearing, decline of cognitive functions). Geriatric medicine has
recently become particularly focused on special education
and rehabilitation. Effects which follow old age, quality of
life of old people and effects of rehabilitation are being re-
searched.

The aim of this paper was to determine social func-
tioning of elderly people suffering from malignant diseases
and the possibilities for their social integration. Our research
paradigm was based on the relation between individual
treatment and the effects of malignant disease in the domains
of functional and social competence.

**Methods**

The research was conducted during the years 2011 and
2012 at the Medical Oncology Clinic, Institute for Oncology
and Radiology of Serbia, Belgrade. There were 150 subjects
of both sexes included in this research, aged between 65 and
79. There were 3 groups of examinees: the group of 49 older
persons (P1) undergoing adjuvant chemotherapy treatment
against early carcinoma; the group of 51 older persons with
advanced stage cancer undergoing systemic chemotherapy
(P2) and the control group (K) of 50 healthy older people.
There were two criteria for the groups of patients: aged 65
and over, malignant disease diagnosed by histopathological
verification, retained communicativeness, mobility and the

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absence of mental or physical limitations. Both patients and the control group were uniform in terms of sex, age and education. The subjects of the control group were mainly recruited from the neighbours and acquaintances of the authors, with certain difficulties, since most of the healthy people refused to be tested and compared with malignant patients. First evaluation cycle was done just before the beginning of the first cycle of adjuvant or systemic chemotherapy and was repeated three months after the beginning of the treatment. The results obtained for malignant patients were compared with those pertaining to a group of healthy old persons (K) who shared the same features, but did not suffer from malignant diseases.

Our research was approved by the Ethics Committee of the Institute for Oncology and Radiology of Serbia and its Scientific Committee. All the subjects signed consent forms.

The sociodemographic questionnaire, previously described in the reference of Berat 3, and interview were used in this research. The sociodemographic questionnaire covered basic demographic features: sex, age, marital status, place of living and level of education. The interview provided answers concerning social estimate: telephone communication with relatives, visits by relatives and friends, living in the same household, eldercare. Medical records of malignant patients were checked to retrieve data about the diagnosis, clinical stage of the disease, type of treatment and associated illnesses.

Descriptive statistics was used to present the significant parameters and dependence on the parameter itself: frequency, percentage, mean, median, standard deviation (SD) and range. For the dependence of the parameters Pearson’s χ² test, Fisher’s exact test, Kruskal Wallis test and Wilcoxon rank sum test were used to check the differences. The level of significance was set to \( p = 0.05 \).

**Results**

Sociodemographic characteristics of the patients from both groups of malignant patients and the healthy control group are represented in Table 1. Although the majority of elderly people from this study were women, both sexes were distributed in the same ratio in all the groups. The youngest subject was 65 years old, and the oldest one was 79, while the median age was 69.5. Most of the subjects in all the three groups were aged 65. The level of education was also equally distributed in all the three groups, showing that more than half of the patients had secondary school. Marital status showed that more than 60% of patients were married, and more than one quarter widowed. Predominantly, the patients from both groups and elderly people from the healthy group were from the urban and suburban communities.

| Patient’s characteristics | Total n (%) | P1 n (%) | P2 n (%) | K n (%) | Test |
|---------------------------|-------------|----------|----------|--------|------|
| **Gender**                |             |          |          |        |      |
| men                       | 29 (19.33)  | 9 (18.37)| 11 (21.57)| 9 (18) | χ² = 0.25; \( p = 0.88263 \) |
| women                     | 121 (80.67)| 40 (81.63)| 40 (78.43)| 41 (82) |      |
| **Education**             |             |          |          |        |      |
| primary school            | 39 (26)     | 13 (26.53)| 13 (25.49)| 13 (26) |      |
| secondary school          | 78 (52)     | 25 (51.02)| 27 (52.94)| 26 (52) | χ² = 0.037; \( p = 1 \) |
| equivalent to US Community|             |          |          |        |      |
| college                   | 15 (10)     | 5 (10.2) | 5 (9.8)  | 5 (10)  |      |
| university                | 18 (12)     | 6 (12.24)| 6 (11.76)| 6 (12)  |      |
| **Marital status**        |             |          |          |        |      |
| domestic partnership      | 2 (1.33)    | 0 (0%)   | 1 (1.96) | 1 (2)   |      |
| widowed                   | 40 (26.67)  | 11 (22.45)| 13 (25.49)| 16 (32) |      |
| divorced                  | 10 (6.67)   | 4 (8.16%)| 4 (7.84) | 2 (4)   |      |
| married                   | 91 (60.67)  | 30 (61.22)| 32 (62.75)| 29 (58) |      |
| single                    | 7 (4.67)    | 4 (8.16) | 1 (1.96) | 2 (4)   |      |
| **Type of community**     |             |          |          |        |      |
| urban                     | 104 (69.33)| 40 (81.63)| 36 (70.59)| 28 (56) |      |
| suburban                  | 36 (24)     | 5 (10.2) | 9 (17.65)| 22 (44) |      |
| rural                     | 10 (6.66)   | 4 (8.16) | 6 (11.76)| 0 (0)   |      |
| **Age (years)**           |             |          |          |        |      |
| average (± SD)            | 70.39 (± 4.29)| 70.43 (± 4.36)| 70.37 (± 4.28)| 70.38 (± 4.32) | χ² = 0.002 |
| median (range)            | 69.5 (65–79)| 70 (65–79)| 69 (65–79)| 69.5 (65–79) | \( p = 0.9989 \) |

P1 – elderly ongoing adjuvant chemotherapy (n = 49); P2 – elderly ongoing systemic chemotherapy (n = 51); K – healthy elderly (n = 50).

Most subjects from the group of old patients with early carcinoma who underwent adjuvant treatment suffered from breast carcinoma (26 out of 49, 53%) and from colorectal carcinoma (19 out of 49, 38%). On the other hand, most subjects from the group of old people with disseminated diseases who underwent systemic treatment suffered from breast carcinoma (18 out of 51, 35%) and gynecologic carcinoma (15 out of 51, 29%).

As presented in Table 2, there was a statistically significant difference in the frequency of category ‘living in the same household’ between the groups. Most older people with no malignant diseases came from the suburban areas and usually lived in the same household with their children, whereas the patients with malignant diseases more often...
lived single in independent households (Fisher’s exact test P1 vs K: \( p = 0.00327 \), and Fisher’s exact test P2 vs K: \( p = 0.00515 \)) (Table 2).

Table 3 shows that the majority of subjects in both groups of patients (P1 and P2) were most frequently visited by their children at the beginning of the treatment. On the other hand, the older people from the control group were rarely visited by their children, but the difference was not statistically significant. In the second evaluation cycle, three months after the therapy had begun, there was a statistically significant difference in the categories of answers among the groups (\( p < 0.001 \) and Fisher’s exact test P2 vs K: \( p = 0.0486 \)). As time went on, home visits become less frequent, and telephone communication increased.

Table 4 represents the results concerning telephone communication. In the first evaluation cycle, there was a statistically significant difference in the frequency of categories of answers between the groups, whereas there was no statistically relevant difference in the second evaluation cycle.

**Table 2**

| Living in the same household | Total n (%) | P1 n (%) | P2 n (%) | K n (%) | Fisher’s exact test |
|-----------------------------|-------------|----------|----------|---------|---------------------|
| With children               | 59 (39.33)  | 14 (28.57)| 15 (29.41)| 30 (60) |                     |
| With others (parents, brother, sister etc.) | 4 (2.67)   | 1 (2.04) | 2 (3.92) | 1 (2)   | \( p = 0.00605 \) |
| Single                      | 84 (5)      | 32 (65.31)| 33 (64.71)| 19 (38) |                     |
| Other                       | 3 (2)       | 2 (4.08)  | 1 (1.96) | 0 (0)   |                     |

**Table 3**

| Visits by relatives to the elderly patients |
|---------------------------------------------|
| Cycle | Total n (%) | P1 n (%) | P2 n (%) | K n (%) | Fisher’s exact test |
|-------|-------------|----------|----------|---------|---------------------|
| 1st   |             |          |          |         |                     |
| often | 39 (26)     | 15 (30.61)| 16 (31.37)| 8 (16)  |                     |
| rarely| 81 (54)     | 28 (57.14)| 24 (47.06)| 29 (58) |                     |
| almost never | 29 (19.33)| 6 (12.24)| 10 (19.61)| 13 (26) |                     |
| never | 1 (0.67)    | 0 (0)    | 1 (1.96) | 0 (0)   |                     |
| 2nd (after 3 months) |             |          |          |         |                     |
| often | 31 (20.67)  | 12 (24.49)| 11 (21.57)| 8 (16)  | \( p = 0.19083 \) |
| rarely| 98 (65.33)  | 36 (73.47)| 33 (64.71)| 29 (58) |                     |
| almost never | 17 (11.33)| 0 (0)    | 4 (7.84) | 13 (26) | \( p = 0.00141 \) |
| never | 3 (2)       | 1 (2.04) | 2 (3.92) | 0 (0)   |                     |

**Table 4**

| Telephone communication with the elderly patients |
|--------------------------------------------------|
| Cycle | Total n (%) | P1 n (%) | P2 n (%) | K n (%) | Test |
|-------|-------------|----------|----------|---------|------|
| 1st   |             |          |          |         |      |
| never | 2 (1.33)    | 1 (2.04) | 1 (1.96) | 0 (0)   | Fisher’s exact test |
| often | 30 (20)     | 14 (28.57)| 11 (21.57)| 5 (10)  | \( p = 0.00417 \) |
| rarely| 34 (22.67)  | 15 (30.61)| 13 (25.49)| 6 (12)  | \( \chi^2 = 2.162 \) |
| when necessary | 84 (56) | 19 (38.78)| 26 (50.98)| 39 (78) | \( \chi^2 = 0.70604 \) |
| 2nd (after 3 months) |             |          |          |         |      |
| often | 20 (13.33)  | 6 (12.24)| 9 (17.65)| 5 (10)  | Pearson \( \chi^2 \) |
| rarely| 22 (14.67)  | 8 (16.33)| 8 (15.69)| 6 (12)  | \( \chi^2 = 2.162 \) |
| when necessary | 107 (71.33)| 35 (71.43)| 33 (64.71)| 39 (78) | \( \chi^2 = 0.70604 \) |

P1 – elderly ongoing adjuvant chemotherapy (\( n = 49 \)); P2 – elderly ongoing systemic chemotherapy (\( n = 51 \)); K – healthy elderly (\( n = 50 \)).
the first evaluation cycle there was a statistically relevant difference in frequency of categories of answers between the groups undergoing adjuvant treatment (P1) and the group of healthy subjects (K) (P1 vs K Fisher’s exact test: p < 0.001). The control group showed that telephone communication described as ‘when necessary’ was more frequent than in the group of subjects undergoing adjuvant treatment (P1), which more frequently opted for ‘often’ and ‘when necessary’. Adult children and other relatives often call to learn about the condition of the patient during initial stages of therapy, but in the course of time, the calls ‘when necessary’ become more frequent (first vs second evaluation cycle, Wilcoxon signed rank test with continuity correction: p = 0.0005).

Table 5 shows a statistically relevant difference in the frequency of categories of answers among the groups. It was particularly obvious at the beginning of the treatment and remained the same three months after the treatment, and the results refered to the group undergoing adjuvant treatment (P1) and to the control group (K), which was statistically relevant (first evaluation cycle P1 vs K: p = 0.00298, and the second evaluation cycle P1 vs K: p = 0.00119). This result suggests that friends, neighbours and colleagues pay frequent visits and offer their help to subjects suffering from malignant diseases. There was no statistically relevant difference when other groups were compared.

### Table 5

| Cycle of assessment | Total n (%) | P1 n (%) | P2 n (%) | K n (%) | Fisher’s exact test |
|---------------------|-------------|----------|----------|---------|---------------------|
| 1st cycle           |             |          |          |         |                     |
| often               | 20 (13.33)  | 13 (26.53)| 5 (9.8)  | 2 (4)   |                     |
| rarely              | 69 (46)     | 23 (46.94)| 23 (45.1)| 23 (46) |                     |
| almost never        | 58 (38.67)  | 13 (26.53)| 21 (41.18)| 24 (48)| p = 0.01472         |
| never               | 3 (2)       | 0 (0)    | 2 (3.92) | 1 (2)   |                     |
| 2nd (after 3 months)|             |          |          |         |                     |
| often               | 4 (2.67)    | 0 (0)    | 2 (3.92) | 2 (4)   |                     |
| rarely              | 95 (63.33)  | 39 (79.59)| 33 (64.71)| 23 (46)|                     |
| almost never        | 46 (30.67)  | 9 (18.57) | 13 (25.49)| 24 (48)| p = 0.00766         |
| never               | 4 (2.67)    | 1 (2.04) | 2 (3.92) | 1 (2)   |                     |

**P1** – elderly ongoing adjuvant chemotherapy (n = 49); **P2** – elderly ongoing systemic chemotherapy (n = 51); **K** – healthy elderly (n = 50).

### Discussion

Malignant disease, the way it is treated and long rehabilitation often exclude the patient from his/her social environment and in the end significantly reduce social contacts. The results pertaining the frequency of visits and the extent to which communication with social environment is retained confirm this view.

The results showed that both elderly people suffering from malignant diseases, so as healthy ones were often subject to so exclusion. Home visits and interest in patient’s health were more frequent when the therapy began, but eventually, this interest and care often faded, which was particularly the case in the group of subjects suffering from disseminated diseases. The patients suffering from malignant diseases remind others of the fact that possibilities for therapy are limited and that life is transient. Serbian culture dictates that communication becomes prevalent. This confirms that highest concern and support for the old patient remain to be a duty of the family. The results of the control group of older people that do not suffer from malignant diseases show that friends and neighbours do not visit them frequently and confirm that the older population becomes increasingly alienated. This kind of alienation is becoming increasingly frequent in Serbia, as well as in other countries. Our research shows that most of the older people with no malignant diseases come from suburban areas and most often live in the same household with their children. Most subjects are taken care of by their children. The scientific literature shows that adult children are the most important source of support and social relations, next to spouses, and that emotional support during illness is even more important than financial support 4,6. Married old people are happier, they cope with the treatment more easily and live longer than their peers who are divorced or widowed 4,13,26.

According to Gelder et al. 27 most of older persons live in their own homes, almost half of them live with spouse, and almost 10% of the older live with their children. Some of them live alone and are lonesome. These unsatisfactory social forms are typical of most Western countries, while in certain other cultures, for example Chinese or Indian, old people enjoy much respect and can often expect to live with their children. In Western countries, most middle-aged people want to live in a separate household, but this kind of independence will take its toll when they become weak and helpless, because there will be less assistance 4,28. Our research shows that older people in the group P1 had much more support from friends and neighbours when the treatment began, and this difference was statistically significant when compared to the other groups. This is in accordance with the findings presented in the text.
with research carried out by other authors. As time passes, home visits become less frequent, whereas telephone communication becomes more frequent. Our research also shows that social contacts become reduced even in the control group of older people with no malignant diseases. Numerous factors impacted the quality of life of older people in the former Yugoslavia. Many years of financial crisis, drop in living standards, poverty, unemployment and alienation made life difficult for old people, which had an impact on their mood and social ties.

Another research with similar results was carried out by Đurđević and Nikolić and it covered 100 subjects suffering from malignant diseases out of who 90% maintained close relations with their friends, and the highest degree of satisfaction was to keep close ties with family members and siblings. Additionally, 33% of the subjects faced difficulties when planning their budget, and 25% of them was in the need of other people’s support. A study by Thomé and Hallberg on people with and those with no malignant diseases, both groups aged above 75, shows that people with malignant diseases have a significantly lower quality of life, whereas their health, social, business and emotional functioning is worse compared with healthy subjects. Women with malignant diseases develop more health symptoms, face more financial difficulties and have less social support than healthy ones. Novaković and Pećenica studied neglect of old people in Bosnia and Herzegovina analyzing 2,000 subjects between 1993 and 2004. The results show that relatives of old persons contact them on a daily basis in 31.57% of cases, once a week in 18.68% of cases, never in 4.45% of cases, and sometimes in 45.30% cases. Relatives of 10.44% of the elderly provide financial support, domestic assistance in 6.24% of cases, farming assistance in 3%, and 28.17% of the old refuse any kind of assistance or support. Generally, contacts with children and relatives are insufficient and foster loneliness. Almost 80% of old people do not have enough support from their relatives.

In case of people suffering from malignant diseases, social support encompasses both emotional and instrumental support, e.g. transportation, cooking meals for them or assistance in everyday activities. Inadequate levels of any of these forms of social support increase risk of psychosocial problems and difficulties, which has a particular impact on persons suffering from disseminated diseases. Petrak et al. compared demographic features of Istria with other regions in Croatia, their health status, satisfaction with life, needs and availability of various care services, and found out that satisfaction with one’s life was lower if self-perception of one’s health was worse, functional ability is weaker and if there was a lack of emotional and instrumental support. Data obtained from the foreign scientific literature show that social services input is provided mainly to the over-65s, who are three times more likely to receive social service than community health service. Interviews with our subjects and their family members show that most of them rely on health services, and that most of them are not even aware of other kinds of services or support. These data show that education of the old raise their awareness of the network of social support which should be further developed.

In most cases older people are afraid they might become a burden to the others, that they might become dependent on other people’s assistance, of effects of the treatment, pain and other symptoms of the disease which might have a negative impact on their life quality. They also express fear that they will not finish certain tasks, fear of death and dying. It is widely known that old people who were successful in several fields, who lived active lives and have more social contacts are mostly healthier. The literature also shows fewer cases of psychiatric morbidity during the treatment of patients with malignant diseases who enjoy higher degree of social participation.

In the field of special education and rehabilitation, geriatric assessment involves assessments of life habits (level of achievement), kinds of necessary assistance and the degree of pleasure (personal hygiene, general physical abilities, interpersonal relations, mobility, maintaining the household etc.), assessment of socioeconomic status and social support. These factors are important for assessing whether an old person can live independently and the extent to which he/she needs experts’ assistance. By identifying financial sources we can assess their income, i.e. superannuation, or if there are other sources of support and to determine if they are sufficient for living expenses. Assessment of the environment involves living conditions, i.e. location, proximity and availability of various services, such as clinics, post office, supermarket etc. and their impact on the person’s independence.

Conclusion

The results of this study confirm that malignant diseases and their treatment often contribute to the exclusion of elderly patients from their social environment and in the end seriously reduce his/her social contacts. This exclusion becomes increased with time during chemotherapy, and is present as a decrease in the frequency of visits by their relatives, as well as friends and neighbours, comparing to the social contacts of healthy elderly people. The probable cause of this reduction of social contacts is unreadiness of the relatives and friends to cope with the long lasting malignant disease of the elderly.

These findings point to the importance of the special education and rehabilitation care of old people with malignant diseases, based on early identification of psychoemotional and social difficulties, requiring preventive interventions. Interventions should be focused on informing patients and their families about the available support within society, about proper life habits (diet, physical activity, recreation, personal hygiene etc.), psychosocial interventions by way of encouraging to take personal care and maintenance of social contacts, legal and financial advice, contacts with social services, contacts with various associations and non-government organizations. Adequate geriatric assessment in the period after the beginning of the treatment and palliative care would enable continuous monitoring and adequate treatment in future on-
cological clinical practice, which would improve the quality of life of old persons, may increase social competence and integration. Future research should be focused on the assessment of certain psychosocial interventions and their impact on the quality of life of old persons. Studies on old persons who manage to recover from malignant diseases could help us complete the picture about the problems and difficulties of old people after the treatment.

Conflicts of Interest

The authors indicate no potential conflicts of interest.

Author contributions

All the authors contributed to the design of the review, extraction and compiling of the data, drafting and critical revision of the manuscript.

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Received on September 23, 2013. Revised on January 3, 2014. Accepted on February 6, 2014.