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NEUROPSYCHOLOGICAL CORRELATES OF THE REHABILITATION POTENTIAL IN CANCER PATIENTS

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Cancer is still the leading worldwide cause of death, but the enhancement in therapeutic and diagnostic measures has increased the rate of survival. With the increasing numbers of cancer survivors, the management of the late sequelae of cancer and its treatments, including neuropsychological deficits, is now the concern. Such cognitive deficits can have a significant impact on the functional autonomy, work capacity, and overall quality of life for the patients and thus the rehabilitative potential of cancer patients who have undergone oncological treatments [1].

Neuropsychological assessment is now an integral part in the evaluation of the cognitive impact of cancer and its treatment. Neuropsychological examinations are proposed to be crucial for identifying cognitive impairment, monitoring its development, and the individualised rehabilitation methods that support functional recovery [2]. However, despite the rising awareness regarding cancer-related cognitive impairment (CRCI), recommendations for the timing and process for neuropsychological examination are heterogeneous [3]. This paper deals with the neuropsychological predictors for the potential for rehabilitation in cancer patients, with special reference to the role played by the cognitive assessment in the direction toward individualised rehabilitation measures.

Neuropsychological impairment in cancer patients is the result of several factors, such as direct central nervous system (CNS) involvement by the disease, systemic treatments such as chemotherapy and radiotherapy, and the overall psychosocial effect of the disease. It is reported that 75% of cancer patients experience cognitive impairment at some point during the disease process, with even higher rates in patients with primary malignancies of the CNS [4].

Non-CNS cancers, often called «chemobrain,» cause deficits in cognitive function, including executive function, attention, information-processing speed, and memory. It can persist for several years following the completion of treatment, causing decreased occupational and social reintegration potential [5]. In cancer patients with cancer in the CNS, the impact is even

more pronounced, with cognitive impairment being present even before treatment and worsening after surgical resection, radiotherapy, and chemotherapy [6]. Neuropsychologic testing before surgery can also predict postoperative cognitive outcome, aid in surgical planning, and select patients for intensive cognitive rehabilitation [7].

Neuropsychology assessment serves several functions in the rehabilitation process for cancer patients. First, it enables early detection of cognitive impairment so that early interventions can counter its effects. Second, it informs the individualised rehabilitation program by identifying cognitive weakness and resilience [8].

Recent studies underscore the importance of serial neuropsychological monitoring since cognitive impairment in cancer patients can be dynamic and evolve with time. For instance, paediatric oncology longitudinal studies have established that neuropsychological impairment can be seen years after treatment, necessitating continuous monitoring to redirect the direction of rehabilitation accordingly [9]. Major organisations have advocated neuropsychological assessment integrated into regular oncology care, but the availability of such services is uneven in healthcare facilities [10].

The incorporation of neuropsychological tests into clinical trials has further highlighted the importance of such measures in evaluating treatment outcomes. Cognitive endpoints are increasingly integrated into oncology studies, offering valuable information regarding the neurotoxic effects of different treatment regimens and guiding changes that prioritise cognitive preservation [11].

Cognitive rehabilitation for cancer patients consists of applying several interventions to enhance cognitive function and compensatory strategies. Techniques can be broadly categorised into restorative interventions, which try to restore impaired cognitive functions, and compensatory techniques, which help the patients adapt to cognitive deficits [12].

Studies have demonstrated the efficacy of cognitive training programs in improving cancer survivors' attention, memory, and executive function. Such interventions, either computer-based training or structured cognitive exercises, effectively alleviate the effects of CRCI [13]. Pharmacologic treatments, such as psychostimulants and cognitive enhancers, have also been studied as cognitive rehabilitation adjuvants, with the latter's efficacy in the long term being researched [14].

There is mounting evidence to recommend the use of psychosocial interventions like cognitive behavioural therapy and mindfulness-based cognitive therapy in the relief of the mental and emotional burden of cancer treatment [15]. Along with the relief of cognitive deficits, these interventions also treat the affective symptoms of depression and anxiety, which are themselves known to exacerbate cognitive dysfunction in cancer patients [16].

Despite the straightforward utility and value of neuropsychological assessment and cognitive rehabilitation, several barriers exist to the implementation process in oncology care. Among them is the lack of trained neuropsychologists in oncology settings, leading to disparities in the availability of cognitive assessment and rehabilitation services [17]. There is the added requirement for standardised test batteries that can be applied to heterogeneous groups of cancer, because most neuropsychological tests available are nonspecific to cancer-related cognitive impairment [18].

Digital health technologies present new potential for enhanced access to neuropsychological assessment and rehabilitation. Remote cognitive screening technologies and tele-neuropsychology services have shown promise to facilitate the early detection of cognitive impairment, particularly in underserved populations [19]. Moreover, integrating cognitive rehabilitation into standard survivorship care plans can enhance patient outcomes by providing structured cognitive recovery assistance after acute treatment [20].

Conclusion. Neuropsychological function directly correlates with the potential for rehabilitation of cancer patients. Deficits in cognitive function, either because of the disease or its treatment, can significantly hinder recovery and return to everyday life. Neuropsychological assessment is at the core of the identification of cognitive impairment, the guidance of individualised rehabilitation programs, and the establishment of priorities for the treatment of mental function.

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ПСИХОЛОГІЧНА ДІАГНОСТИКА МЕНТАЛЬНОГО ЗДОРОВ'Я КАНДИДАТІВ НА ВІЙСЬКОВУ СЛУЖБУ В ДЕСАНТНО-ШТУРМОВІ ВІЙСЬКА ЗБРОЙНИХ СИЛ УКРАЇНИ

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Згідно Всесвітньої організації охорони здоров'я (далі – ВООЗ), ментальне (психічне) здоров'я – це стан психічного добробуту, що дає змогу людині впоратися зі стресорами, усвідомлювати свої здібності, добре навчатися і працювати, робити свій внесок у життя громади. Психічне здоров'я передбачає змогу приймати рішення, будувати взаємини та бути суб'єктом у своєму житті, впливати на світ довкола [1].

ВООЗ визначає ментальне (психічне) здоров'я невіддільною складовою здоров'я загального та наголошує, що воно є базовим правом людини, оскільки ми всі маємо право на психічне здоров'я і піклування про нього. І залежить воно не лише від самої людини, а й від оточення,