

Impact on the Quality of Life of Cancer Patients in the midst of the COVID-19 Pandemic: a Reflection from Abraham Maslow's Theory of Basic Human Needs

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Impacto na Qualidade de Vida de Pacientes com Câncer em meio à Pandemia de Covid-19: uma Reflexão a partir da Teoria das Necessidades Humanas Básicas de Abraham Maslow

Impacto en la Calidad de Vida de los Pacientes con Cáncer en Medio de la Pandemia Covid-19: un Reflejo de la Teoría de Abraham Maslow sobre las Necesidades Humanas Básicas

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INTRODUCTION

According to the World Health Organization (WHO)¹, the quality of life is “an individual’s perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns”. However, it is not possible to have a unique and final concept about quality of life, but it is possible to determine elements to think about this concept in objective and subjective spheres. The objectivity refers to the position of the individuals and their relations with the society. The subjectivity addresses the knowledge about the physical, emotional, social and spiritual conditions² (biopsychosocialspiritual), which is in conformance with WHO definition of health “a state of complete physical, mental, and social well-being not merely the absence of diseases”. The patient with cancer deals with modifications of all these biopsychosocialspiritual aspects. Thus, the current moment of world pandemic provoked by the novel coronavirus (2019-nCoV) can impact the quality of life.

The coronaviruses (CoV) belong to a large family of single stranded RNA viruses that cause diseases since a common influenza until severer diseases as the severe acute respiratory syndrome of coronavirus 2 – Sars-CoV-2. On January 2020, Chinese scientists succeeded in isolating the Sars-CoV-2 in patients of Wuhan and on February 11, 2020, the WHO named the coronavirus disease 2019 as COVID-19³, that can vary from an asymptomatic clinical condition of mild symptoms (fever, tiredness and cough) to a severe condition (high fever, pneumonia and dyspnea).

The group of risk for development of severe condition and death by COVID-19 infection are individuals above 60 years

old, with chronic diseases – asthma, cardiopathies, diabetes, neoplasms – and immunosuppressed. Therefore, patients with cancer are a group of high risk in the COVID-19 pandemic because further to being vulnerable to the infection due to the subjacent disease, are still in immunosuppressed condition, increasing the risk of developing severe biological complications of the virus⁴. Furthermore, they are susceptible as those who tackle the pandemic and social isolation to feelings of stress, fear, anguish and loneliness that cause biopsychosocialspiritual damages.

Therefore, the COVID-19 pandemic scenario and social isolation can affect directly the quality of life of patients with cancer in the biopsychosocialspiritual dimensions. In this context, this article reflects about the impacts in the quality of life of patients with cancer, analyzing the possible damages according to Maslow theory of basic human necessities.

This reflective study with documental analysis from searches conducted in the database Google Academic in April 2020 was grounded in Maslow’s theory of human motivation or hierarchy of the human needs⁵. This theory organizes hierarchically the basic needs common to all, the satisfaction in a certain tier must be fulfilled in order to move up to the next tier, which is a behavioral motivation. Maslow created five tier needs: (1) basic and physiological needs; (2) safety needs; (3) love needs; (4) esteem needs and (5) self-fulfillment needs.

DEVELOPMENT

The data encountered indicate four dimensions for the impact in the quality of life of patients with cancer in the COVID-19 scenario: biological, psychological, social and spiritual. Consequently, it is possible to make a parallel of

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Maslow's theory of the basic human needs with the four dimensions of the quality of life of patients with cancer identified in this study: the biological dimension is within the physiological needs; the psychological permeates among the physiological, love and self-fulfillment; the social, is within the needs of love and the spiritual, in the needs for safety.

BIOLOGICAL DIMENSION

The biological dimension is within the scope of Maslow's defined physiological needs and is the base of the pyramid. This means that, without health, the individuals are not motivated to pursue higher satisfactions levels. Therefore, the patient with cancer may have the biological/physiological dimension affected in several ways because of more susceptibility of being infected by Sars-Cov-2 as result of the immunosuppression, the possible delay of treatment and diagnosis and modification of the diet routine and physical activities. Facts that added, increase the incidence of signs and symptoms as pain, which reduces substantially the quality of life of this patient⁴.

The first study demonstrating the relation between COVID-19 and cancer patients was performed in China in January 2020 and showed that these patients can have more risk of worse prognosis and death by COVID-19 since adverse events in non-oncologic patients were 8%, in patients with cancer, it reached 39%⁶. In addition to this study, a comparative analysis between oncologic and non-oncologic patients⁷ showed that patients with cancer are more susceptible to infection than patients that have no cancer because of their systemic immunosuppressor condition caused by oncologic treatments as chemotherapy or surgery.

With social distancing to reduce the dissemination of COVID-19, the access to health-related integrative and complementary practices such as relaxation and meditation performed by patients with cancer to relieve specifically the treatment side effects⁸ was discontinued mainly in endemic regions⁹. In this case, worsening of cancer or treatment related physical symptoms affecting directly the quality of life of this patient may occur.

Another topic to be highlighted in the biological dimension is the change of food habits during the period of social isolation. Some of the side effects associated to the treatment of cancer are anorexia, early satiety, changes of smell and taste, further to intestinal problems, ending up in nutritional worsening of the patients¹⁰. Therefore, good nourishment is essential to improve the quality of life of this group. However, with the current measure of social isolation, the purchase of fresh and healthy food is reduced, while unhealthy food habits have become more common.

In the current scenario, the practice of physical exercises is also harmed, and studies demonstrate that this practice in cancer patients promotes benefits as the reduction of the chronic inflammatory condition and fatigue, prevention and treatment of cachexia, further to more adherence to the conventional treatment and improved quality of life. These activities must be individualized according to the history and limitations and, if possible, with professional follow up^{10,11}. However, during the pandemic, the options of physical activities are restricted to the household environment, most of the times, without proper follow up, which favors the sedentary style of life.

PSYCHOLOGICAL DIMENSION

Per Maslow theory, when the individual reaches totally or partially its needs, expands to higher tiers of psychological health¹², which is related to the form an individual responds to the demands, challenges and changes of life, as well as how it harmonizes its ideas and emotions. Therefore, the psychological dimension essential to the quality of life permeates among the physiological needs, love and self-actualization in the hierarchy of Maslow.

Consequently, the impacts of the quarantine can be perceived by symptoms of post-traumatic stress disorder (PTSD), anxiety disorders and other negative effects triggered by boredom, stress, fear, duration of the quarantine and inappropriate information about the disease¹³. In addition, stress, on its own, can lead to immune changes¹⁴ and sleeping pattern¹⁵, and factors that cause negative impact in the quality of life of these patients.

It is known yet that stress, one of the consequences of the pandemic, impacts negatively the individual's immune response. The response to the stress hormones is associated to more susceptibility to infections and chronic inflammatory, autoimmune and allergic diseases. With this, the chronic activation of the neuroendocrine axis resulting from stress can generate immunosuppressor effect because of the release of glyocorticoids¹⁴. In patients with cancer, this immunosuppression becomes more problematic, since the body is already debilitated with the disease and treatment; with this, stress is still more health damaging, affecting the quality of life.

Furthermore, another consequence of the stress is the modification of the sleeping pattern, which is essential for the physical and psychological health. A review study showed that the sleeping disorders can cause significant changes in the physical, occupational, cognitive and social functioning of the individual, in addition to compromising substantially the quality of life¹⁵.

SOCIAL DIMENSION

According to Maslow⁵, keeping social relations is a basic human necessity of affection and love. Thus, for personal fulfilment, the human being needs to relate with the environment and the individuals living in it as third hierarchical base. It is observed a dichotomy in relation to the social dimension of the quality of life of patients with cancer, since social isolation cannot be applied fully to these patients because they need to continue the treatment, but, simultaneously, there is the necessity of social isolation from friends and family.

It is known that the oncologic treatment demands interaction with several health areas, which involves contact with many professionals in hospitals, clinics and laboratories. This means that social isolation, if applied in full for oncologic patients will cause damages to the treatment. With this, the recommendation of staying home cannot be complied with in full for patients with cancer, which increases the risk of contamination¹⁶.

On the other hand, the support from family and friends, so important for the oncologic treatment is hampered in the scenario of social isolation. Coping with cancer can be long, tiresome and full of side effects and, for this, requires family reorganization, support from friends and community¹⁷. Thus, submitting to cancer treatment requires attention by the family and friends, a fact that during social isolation can be damaged because not everyone has access to Internet and technology, affecting directly the quality of life and basic need of love.

SPIRITUAL DIMENSION

A possible interpretation of Maslow's necessities of safety is the pursue of the spirituality or a philosophy that organizes the human being and the world where it lives coherently and safely. Therefore, Maslow considers man insecure to choose on its own its principles and virtues, needing a base to justify its acts that, most of the times are spiritual or philosophical¹⁸.

Therefore, in what concerns the spiritual dimension, it was observed a strong relation of faith as strategy to cope with the disease¹⁹. Thus, the changes occurred in the routine of the Brazilian society in general because of the COVID-19 pandemic can generate feelings of fear and helplessness.

Consequently, in the context of the quality of life of the patients with cancer, spirituality promotes support and strength to cope with the changes experienced with the disease as pain, treatment side effects and emotional instability. In addition, through faith, many patients resignify the disease to face the situation and feel stimulated to adhere to the conventional treatment¹⁹. However, the patient is dealing with a serious disease

as cancer in a pandemic scenario, suffers with fear and helplessness and may challenge its faith. The loss of safety granted by the spirituality can be a hampering factor to cope with cancer and consequent decline of the quality of life of these patients.

RECOMMENDATIONS TO MINIMIZE THE IMPACT OVER THE QUALITY OF LIFE

In the current COVID-19 pandemic scenario, most likely the quality of life of the patients with cancer decreases because the biopsychosocial dimensions have declined as well. However, this decline can be minimized through strategies already being created nowadays in several oncologic training centers for better management of the patients with cancer.

To maintain the cancer treatment, there are measures that can be implemented by the health facilities: scheduling of online or telephone consultations for outpatients reducing the flow, consultations via Internet for guidance about the use of drugs, management of symptoms and psychological monitoring; substitution of IV for oral chemotherapy, when possible, reducing the risk for the patient; increase the intervals between adjuvant chemotherapy and reduction of radiotherapy fractioning according to the conditions of the patient, resulting in less transit; continue COVID-19 screening of health professionals and patients with cancer; for more serious cases of lack of inputs, prioritize the access to the oncologic treatment according to the mortality associated to non-treatment^{20,21}.

Furthermore, the patient can adopt new habits at home to improve the quality of life during social isolation: keep balanced nourishment, physical activities, respecting the limits, create routines to ensure sufficient sleeping hours, communicate with relatives, friends and support groups by telephone and video-calls, reduce the access to news that can cause stress and anxiety.

CONCLUSION

The reflection indicates that it is possible that the quality of life of patients with cancer during the COVID-19 pandemic is damaged. The great impact is in the biological dimension as result of increased risk of COVID-19-associated complications, difficult of access to the treatment, inappropriate nourishing habits and sedentarism, in addition to damages to the individual immune response.

However, the health scientific community is elaborating strategies to minimize these possible damages. It is suggested that for better care to the patient with cancer, clinical trials for improved understanding of the impacts

of the disease provoked by Sars-Cov-2 and means to avoid possible reduction of the quality of life are conducted.

CONTRIBUTIONS

All the authors contributed equally for the conception and planning of the study, gathering, analysis and interpretation of the data, wording and critical review and approved the final version to be published.

DECLARATION OF CONFLICT OF INTERESTS

There is no conflict of interests to declare.

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