

**Oncology in the education field.**  
(*Oncología en el campo educativo*)

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**Abstract.**

This article is a literatura review of childhood oncology and oncology. How oncology can influence the educational field and if teachers should know about oncology or not, they should always know about it and they should also know how to treat students at school, as well as work on inclusion day by day. Another important aspect is prevention in oncology, if there is prevention in the future, people would have a better quality of life.

**Keywords:** oncology; children´s oncology; precaution; training teacher; inclusion

**Resumen.**

Este artículo es una revisión bibliográfica de oncología y oncología infantil. Como puede influir la oncología en el ámbito educativo y si los docentes deben saber acerca de oncología o no, siempre deben saber acerca de esta y también deben saber como tratar al alumnado en el colegio, así como trabajar la inclusión día a día. Otro aspecto importante es la prevención en oncología, si hay prevención en un futuro las personas tendrían más calidad de vida.

**Palabras:** clave: oncología; oncología infantil; precaución; enseñanza a docentes; inclusión

**1.-Introduction.**

Childhood cancer is considered a chronic disease, but today thanks to advances in medical treatments the survival rate is high, the survival rate of children with this pathology is 70%. It is also important not only to cure the disease, but also to reduce the side effects of the treatments. The diagnosis involves fear, fear, worry, stress, anxiety and depression, both in children and in their families. Teachers should also know about this disease and how they should teach students who suffer from it, as well as there must always be inclusion with students who suffer from cancer.

## 2.-Oncology.

Cancer was known 6000 years ago, this is known thanks to data that were obtained in papyri from ancient Egypt, from 1600 BC. The name cancer comes from the Greeks, it was Hippocrates who used the word Karkinos, this word designated a disease that produced tumors in the breasts, uterus, stomach or skin. Current oncology was born in the 19th century thanks to three factors, the improvement of the microscope, which led Rudolf Vircho to maintain that each cell is born from another cell and to propose that the disease started in cells, advances in asepsis and anesthesia, which makes the surgery results better. And the discovery of X-rays and radium. In relation to the concept of cancer, Guijarro (2009) proposes that it is a pathology that involves the growth and multiplication of cells that have previously mutated in an abnormal and uncontrolled way. On the other hand, the Madrid Group of Psychooncology (2004) defines cancer as a serious and complex disease, whose progress and prediction depend on the stage of presentation, but with common biological foundations: uncontrolled cell growth, loss of the 5 cell differentiation and spread to invade adjacent tissues and metastasize. Cancer, depending on its origin, can be endogenous (genetic and hormonal) and exogenous, caused by environmental factors such as tobacco, alcohol, diet, radiation exposure, some occupational factors (occupational carcinogens) and drugs, among others (Tornamira and Colomer, 1999).

Finally, according to the Spanish Society of Medical Oncology (SEOM, 2019): "The term cancer encompasses a large group of diseases that are characterized by the development of abnormal cells, which divide, grow and become they spread uncontrollably in any part of the body "Cancer can appear in all years of life and in all parts of the body, including the blood and lymph node systems, brain and spinal cord (central nervous system), kidneys, and other organs and tissues. Regarding the cure, the opinion of the patient is hardly taken into account in the interventions, it is more survival and the classic concept of cure. In some cases, the tumor cannot be cured, but if survival for a certain time, this requires a high economic cost and treatments with numerous side effects. Doctors and oncologists always seek to avoid pain that is caused by the tumor. The mentality of clinical oncologists has changed a lot, for a decade it has been forced to introduce clinical trials with methodological innovations, all this is to introduce the concepts of quality of life and pharmacological studies, both concepts are necessary to achieve the greatest benefits in quality life span of cancer patients (Yarbro et Sacristán, 1991). The quality of life of oncology patients must be assessed. According to Martínez, 2005 there are some clinical trials that should be evaluated on the quality of life of the patient. Some examples of this are comparing two palliative treatment schemes, treatments with similar expectations or efficacy, or when the results are good even though there is a lot of treatment and high global recurrence rates in one of them. In these examples it would be appropriate to quantify in

distinguishing the relationship to quality of life according to the therapeutic intervention that has been used. In relation to radiotherapy, there is a work carried out by the Radiation Oncology Services of Ramón y Cajal, Puerta de Hierro and Central de la Defensa, in them there were 55 patients receiving radiotherapy treatment, these patients did not have the same tumor, each one had a different one. In this study, anxiety, depression, quality of life and the symptom scale were assessed (Cruzado, 2004).

The results show that oncology patients who have been in this research have shown more anxiety at the beginning of radiotherapy treatment, regarding quality of life and depression when they are subjected to said radiotherapy, there are no appreciable changes. However, in the last weeks of treatment important symptoms have been appreciated.

### **3.-Children's Oncology.**

To begin with, childhood cancer is a disease where a single cell grows out of control, in many cases it turns out to be a mass or tumor. The main characteristic of cancer is that normal cells multiply and spread beyond the normal limits and can damage by invading parts of the body and spreading to other organs. This term is called "metastasis." If the metastasis is not caught in time, it causes death (Malone et al., 2020).

The difference between adult and juvenile cancer is that childhood cancer is not known what the origin is, very few are caused by environmental or lifestyle factors. It can be stated that the origin is multi-causal, incorporating factors such as (physical, chemical and biological) and genetic. It is suggested that childhood cancer has characteristics that differentiate it from adult cancer that cause its medication, monitoring and registration is different. (Burgio et al., 2018; Paquette et al., 2019)

There are many types of childhood tumors that spread in children and adolescents from birth to 19 years of age. The most frequent diagnoses in childhood are: Leukemia, Central Nervous System (CNS) Tumors, Rhinoblastomas, Embryonic tumors, derived from cells that have previously developed from the embryo, it is the tumor with the lowest five-year survival when diagnosed. In fact, it accounts for fifteen percent of all cancer deaths in European children (Boloix et al., 2016). The patient may also suffer from fever, irritability, and weight loss (Álvarez & Lamarre, 2012; Tişa et al., 2019). Treatment is chemotherapy and surgery, when the cancer is advanced, patients usually undergo radiation therapy or stem cell autotransplantation (Koivusalo et al., 2014).

There is a certain cancer that is non-Hodgkin lymphoma that the symptoms in children are: swollen lymph nodes, swollen abdomen, not being hungry, cough and breathing problems, fever, weight loss, sweating at night and fatigue. An alternative cure is chemotherapy. In the event that the lymphoma reappears after treatment, chemotherapy is followed by a stem cell transplant (American Cancer Society, 2018).

- Intracranial hypertension syndrome.

- Hemiparesis, parapesia, diencephalic syndrome in tumors located in the midline and localized pain (hypotonia and spasticity or hypotonia and flaccidity and bladder and sensory involvement).

- Convulsive crisis.

By age in which the cancer appears, the most frequent tumors are in children who are zero years old, Central Nervous System (CNS) Tumors, in children from one year to nine years old, leukemia and lymphomas in children from ten to fourteen years old. In the age of fifteen to nineteen years (adolescents), Bone Tumors and Lymphomas (Pardo et al., 2018).

When the quality of life of childhood oncology patients who have suffered a tumor of the Central Nervous System (CNS) is compared, it is observed that they have a lower quality of life and have a higher risk of suffering neuropsychological dysfunctions and more problems of psychosocial adaptation after disease (Alias et al., 2020).

According to the research by Hedström et Haglund (2003), Salas et al (2004) investigate the side effects of treatments, discovering that up to the age of twelve the worst symptom is pain and when they are over 13 years old it is nausea.

González (2011) Noll RB et Kupst (2007) state that parental support makes the child endure more of the challenges posed by the disease and creates them emotionally stronger. When this happens, children feel more confident in their parents to express everything they feel and tell them what concerns them.

On the other hand, you can practice activities that are done every day in childhood, some of them are: education, games, small domestic tasks that are found at home.

On the other hand, there are other childhood diseases that can lead to cancer in the future, for this reason it is good to get vaccinated and look for other methods, such as an early adequate assessment or screening, so that they do not have so many chronic infections that lead to cancer child or adult (Engels et al., 2020).

As the cases of childhood cancer are not known one hundred percent, the World Health Organization (WHO), proposes to study the prevention of childhood cancer, when it is diagnosed that in the future you may have adult cancer, study it and do everything possible so that this does not happen, making an early and accurate diagnosis accompanied by good treatment and palliative care.

Díaz et al., (2019) state that cancer is one of the most important causes of death among children and adolescents throughout the universe.

. The consequences of childhood cancer are:

- It not only affects children, but also their environment (family, friends, etc.).
- The child is still a child, despite the disease, it continues its evolutionary and maturational process, so we must try to make the disease affect it as little as possible. Therefore, it is vitally important to work on the disease to integrate it into your life.

- Some children have psychological and physical sequelae after being treated for cancer.
- The family and the child usually receive help from specialized programs through professionals and associations.
- The objective of the intervention must be to overcome the disease through strategies and activities for it.

Oncological disease has different phases that children and family members have:

- Crisis phase: this period includes the time prior to diagnosis, in which symptoms are observed. It is necessary to learn to live with these symptoms, adapt to the hospital and the needs of the treatments, understand the disease, admit the change and organize.
- Chronic phase: this phase ranges from diagnosis to the terminal phase. In it, the illness must be reconciled with the needs of the family.
- Terminal phase: in it, the feeling of loss is present. Here death is faced and the duel is worked. The family has several challenges from hospitalization, treatment, aftermath and the death of the child.

The course of the disease must be carried out by a psychologist, when it is carried out by said professional, the quality of life of the patient increases. Formerly, this activity was not carried out as a care activity but the psychologist basically focused on the diagnosis and care of problems related to cancer, as well as emotional problems and the treatment process, the psychologist treats the patient and to the family member or relatives (Mostow et al, 1991).

Regarding the treatments that are treated in oncology, they affect children more than adults because it can condition development and global functioning. Cranial radiation therapy and chemotherapy can alter the normal development of the brain, both white and gray matter. These treatments affect you based on age and other variables such as sex, type of treatment received, types of pathologies, time elapsed, among others. Many times the sequelae are not observed immediately, but in the medium and long term. The damage of childhood and early ages can seriously condition the development of children.

What neuropsychology seeks is to detect the difficulties that exist. Difficulties are selected to adjust to academic needs or in other areas, in this way we do not speak of clumsy or lazy children, what is achieved is to find solutions.

On the other hand, when children are admitted to the hospital and receive the treatment required by oncology, their lives change (Figueira, 2007). This change can be significant in:

- Limitations on the most possible visits with friends and family.
- Modification of the physical space.
- School absence.
- Lack of sensory and affective stimulation typical of the environment.
- The decline in experimentation and exploration of the environment. The hospital does not allow recreational, family and social activities.

- Painful and invasive interventions that create fear and emotions of suffering.
- Loss of roles, habits and routines.

Celma (2009) cancer can have an effect on the child's occupational performance, due to: invasive and painful therapeutic procedures, long periods of isolation and hospitalizations, emotions of suffering / proximity and association with death, some sequelae may arise such as physical ones, loss of speed, precision and coordination of movement, gait disturbances, coordination problems and balance disturbances, hemiplegia and amputations. Emotional sequelae, decreased self-esteem, behavior problems, apathy and lack of motivation, hypersensitivity to certain situations and low tolerance.

Social sequelae: difficulty in social relationships and difficulties in social participation.

Cognitive sequelae: attention deficit and fatigue, concentration difficulties, slowing of processing, memory disorders, reduced ability to solve problems, learning difficulties and difficulty in generalizing in new situations.

Disruption of occupational performance, loss of roles, routines and habits.

Limitation in performance skills and deficits in body functions and structures.

Sometimes it is necessary to include Occupational Therapy programs, through recreational activities, to minimize the effects of hospitalization. Occupational Therapy uses play as a therapeutic resource to give continuity to the growth of the emotional, cognitive, social, personal and physical areas. Play is the best tool for students to discover, invent, experiment and consolidate skills. In addition, with the game, creativity, initiation actions and self-confidence are encouraged.

It is main to work on daily activities and sustain the relevant level for children. The performance of these children is affected both by limitations and by the disease itself, sometimes it is also affected by the overprotection of the family, it affects these children who cannot develop their full potential, as well as the opportunities to develop themselves.

When discussing a work plan with an occupational therapist, it should be tailored to each child and should follow the following goals:

- Advise family members of the importance of doing activities, especially those that are linked to controlling needs and comfortable activities.
- Encourage the work of roles related to age, in the hospital and / or home.
- Adequacy of the environment where the child or her family cannot do the tasks they want or need to do. In this objective, the occupational therapist has a fundamental role because he can recommend some adaptations of both the environment and the task, thus he can increase the independence of the child or in order to allow the care of her.
- Work motor skills, processing and communication / interaction, to recover these functions if they have been lost or maintain these functions.

Regarding the academic issue, it affects them so much that sometimes they make progress impossible. In relation to the Activities of Daily Living (ADL), the child who has overcome cancer must redo the routines and habits related to independence in the Activities of Daily Living. When there are motor and / or neuropsychological side effects that impair the development of these activities, there are many times that they are affected by the family's overprotection.

The social worker must obtain all the problems that the child has when doing the activities of daily daily life, both in the basic and instrumental activities and in the areas of education, play, and social participation. Nowadays amputations are not very frequent, prostheses, both of the lower and upper limbs, make the child satisfactorily reintegrate in their daily life, being indispensable in a profitable way in their daily life, being necessary an appropriate training in TO, with the intention of achieving good functionality, so that the child has considerable independence and normalization in their daily life and in their social relationships. In this situation, treatment planning, there must be objectives oriented to recovery, care and reward skills, so that the level of performance in the tasks of Daily Life, Schooling, Play and Social Participation in the child / to be your best. Advise and practice the use of technical aids and other devices.

- Try to have social interactions and avoid the tendency to social deprivation.
- Allow the restart of the tasks that the child did before suffering from cancer, especially going back to school. In OT, they maintain that schooling is an important task for development, because it is a part of the child's day-to-day life. In this case, OT has to respond to the requirements of the child who has overcome cancer, providing the means to get used to and actively collaborate in their environment, treating their levels of functionality and independence. Educational, relationship, independence, recreational or recreational and accessibility needs will be addressed.
- Recommend in the curricular adaptations and in the adaptations of access to the curriculum in the aspects that have to do with the occupational work: adaptations and / or change of the environment, of the materials and utensils (didactic, of writing, etc). Above all, in those children in whom neuropsychological sequelae are few, it is very relevant to tell teachers about the consequences they have on their school productivity.
- Promote homework, school and community according to age.

Regarding children who suffer from brain tumors, ALL, they usually have language disorders. To work the language it is very important to know where the tumor is located, the medical intervention (tumor resection, chemotherapy and ototoxicity, radiation ...), the time that has been in the hospital admitted and that has not gone to school, the cognitive functions and if he has had any disease before the cancer appeared, the child's socio-cultural environment, school motivation, among others. Another relevant aspect is the age at which the disease arises, when the child is less than five years old they may suffer more cognitive alterations and problems related to disorders in language, speech or voice and cognitive skills that are treated in the education (Eiser et Tillmann, 2001).

Children who suffer from oncology problems, may have language and speech problems, the main ones are: Cognitive (decline in IQ, dyslalias, among others) Physical, organic (dysarthria, hearing loss or alterations).

There are other cognitive alterations such as attention, working memory, executive and motor functions, etc. All of this can affect the achievement and progress of language and learning abilities.

The speech therapist to assess the problems, disorders or changes in the development and process of language in children with cancer, first makes common tests of language, speech and voice.

When the interview with the parents is carried out, some aspects such as speech, articulation and intelligibility, quality control and type of breathing, suction and murmur are evaluated later.

The sessions are made according to the responses that the children have to the interventions, the speech therapist has to be attending and paying attention to the needs of changing the objectives of the students. When they cannot achieve a goal, they have to raise the necessary prerequisite work.

In the case that children have tumors in the central nervous system, the fasciae should be worked on, if dysphagia or spasticity appear in the face and neck.

The main objective is that the child can achieve better communication with her environment.

It is vital to work with the family so that they are aware of the disease and accept it, so that the child is biologically or behaviorally well, because if the family is wrong, he will be worse off.

If these three requirements are met: there is damage or failure of the Central Nervous System (CNS), creating lasting and disabling deficits and some appearance of the activity is substantially impaired, this is not expected to be the case due to the type of neurological impairment that is (So the evaluation of this type of disorder must be based on neurological status, specific deficits and the patient's social, occupational and family environment. So that this does not happen, the family has to adapt to the consequences of the patients and the difficulties they may have and interrupt their day-to-day life.

Regarding when children with cancer present sequelae after the disease or the treatments, the neuropsychological area, physiotherapy, occupational therapy, speech therapy and family therapy should be worked on.

Each child must be treated differently and see what requirements they need, for this reason weekly meetings are necessary, where the objectives and common areas are worked on to treat each child (Verdú et al, 2000)

#### **4.-Precaution and oncology.**

Prevention is important because the disease and the treatment greatly affect both the family and the children and they have to go to hospitals and suffer many consequences, until they survive the disease (Ricketts et al. 2018).

O'Keefe (2000) maintains that current knowledge is not complete but confirms that cancer is an easier disease to prevent than to cure. There are three examples of preventing cancer, which are: primary, secondary and tertiary prevention. Each one is destined for a function. In the case of primary prevention, it is intended to eliminate, or at least reduce, the exposure to physical, chemical, and biological carcinogens. They are the most effective and useful in health, economic and socio-cultural terms. It can be achieved in two ways: by preventing the introduction of carcinogenic agents into the

environment or by suppressing or totally reducing the already famous carcinogens in our habitat. Primary prevention is aimed at the general population, symbolized by asymptomatic people. The effectiveness is totally connected with the precociousness of its foundation, hence how vital the commitment of pediatric professionals is in its introduction, as well as before it is possible. Likewise, the preference and guidelines of primary prevention are in correspondence with the basic and main considerations of the beginning of precaution or caution.

The best for primary prevention are: childhood cancer survivors are at risk of having a second tumor now and in the future; the family that has hereditary syndromes with genetic predisposition; people with cancer who have congenital or acquired immunodeficiencies (Harvard, 1997). There is a secondary prevention that is for people who have confirmed preneoplastic progression, they still do not present bad clinical signs or symptoms. This type of prevention is aimed at specific people, in whom everything possible can be obtained through complementary techniques that facilitate early assessment. The benefit of having cancer prevention is that the therapies are less aggressive and increase the quality of life and survival of people with cancer. Neuroblastoma screening is the most striking childhood cancer, this is in the early stages of life through the early urinary discovery of catecholamine metabolites. In the case of adults, an example of who forms it is breast, prostate and colon cancer screenings. Secondary prevention aims to reduce the progression to advanced periods of neoplastic diseases. In the case of tertiary prevention, it is destined to have less morbidity and mortality in patients with tumors, focusing above all on the use of drugs or chemotherapy drugs to prevent recurrences or a second tumor. An example of this tertiary prevention is childhood oncology, it is chemoprevention with retinoids to be able to increase the life of post-marrow transplants in refractory neuroblastomas. In the case of adults, it is formed by the administration of raloxifene or tamoxifene in women who have overcome breast cancer, to try to prevent them from relapsing (Keefe et al, 2000).

But in reality, there are several different reasons, which are: there are carcinogens, natural in the environment; habits that are usually social, cultural and religious; ways of life that are not healthy, promoted in marketing; pollution of the environment and uncontrolled use of atomic energy; there are carcinogenic substances that have not yet been investigated.

Cancer is more sensitive in the prenatal period and in childhood than in adult life. Environmental agents can lead to cancer from prenatal or postnatal exposure. In the case of mothers who have taken diethylstilbestrol and had daughters, a strong clear cell carcinoma of the vagina has been observed and in the case of the development of leukemia in children they are exposed to transplacental or postnatal ionizing radiation.

Ortega (2007) maintains that prevention is better than cure. He exposes this after analyzing the description of reality.

Childhood cancer prevention is not classified for carcinogens according to IARC and the U.S. National Toxicology Program (USNTP) do not recognize preventive symptoms

for cancer, in the case of adult cancer, asbestos and tobacco smoke are the only factors that will lead to cancer.

Regarding the subject of Education, Ferrer (2018) states that teachers need to know if the disease can affect the child in their class, if the disease occurs, how to deal with it and the effects of the treatment that is related to education. Mildredis et al (2017) maintain that tumors in very young children are not easy to detect, because the child does not manifest pain. However, when the child is of school age, teachers, family members and health personnel discover that she has a tumor, as a consequence of the symptoms that she exhibits.

Melero (2018) maintains that children with leukemia and brain tumors are at higher risk of having educational complications.

According to Barbosa et al (2002) maintains that pain depends on the type of cancer, the location and classification of said cancer, if there is metastasis the pain is more complicated. In the case of leukemia, the pain rises. Grau (2005) states that children with leukemia who are treated with cranial radiation and chemotherapy have neurological sequelae that influence learning, the consequence of which is that it will be more difficult, and causes problems in language development, coordination fine and gross motor, short and long term memory and attention spans. These learning difficulties are expressed in literacy, math, hearing, and language.

Schorr-Ribera (1993) maintains that students suffering from leukemia, brain tumor and bone tumor have alterations at school, as a consequence the teacher must be aware of:

- Aggressive behaviors: includes thumb sucking in class, bladder or belly accidents, awakening interest in the teacher or classmates.
- Model and anxiety: loneliness at recess, inability to participate in games or sports in the yard, fear of climbing or falling, whimpering / crying and hyperactivity.
- Depression: grief or emaciation, crying at inopportune moments, hypersensitivity, school frustration, not being able to collaborate in class discussions, headaches and stomachaches, not being able to be attentive in class because of falling asleep, not being able to concentrate.
- Anger: uncontrolled attacks of temper, arguments at recess, bad attitude and uncontrolled jealousy.

## 5.-Training teacher.

In the first place, teacher training is essential, it encourages the motivation of other teachers who want to train and who have been born in today's society. Good training will lead to good learning. Pedagogical knowledge can be defined as:

- Group of knowledge that are not the same (day-to-day or theoretical purpose) said knowledge is practiced in several sessions and carried out by different people.
- Critical ontology of ourselves. Knowledge skill: value neutrality. (Martínez, 2016, p.34).

Pedagogical knowledge is known as the explanation of education through rational, human, active, logical, epistemological and social means (Quiceno et al 2009). Goethe stated that pedagogical knowledge is an experience. It is the knowledge of one, to know what is the same. Teaching is acting and the other wants to act as well.

Teaching is saying, acting and wanting the other person to act. Therefore, the teaching maintains:

- Theoretical and practical pedagogical models that are used in different levels of education.
- Diversity of concepts that correspond to different fields of knowledge, of pedagogy.

The social characteristics achieved by teaching in the educational institutions of a given society that offers functions to the people who have carried out said activity. Explained in this way, it is possible to understand the pedagogical as theory and practice, which makes teachers in relation to knowledge and to the social event vulnerable to historical specificity.

On the other hand, when it comes to training teachers, it must be done taking into account what the teacher knows, it is necessary to train knowing the school knowledge that the teacher must know. All teachers should be trained in the same way. Training must be understood as a set of language, reality and subjectivity, this is created in the relationship between all subjects and the world apart from science, technology and culture.

When the subject is in motion, formation originates, he connects his internal needs with those of the outside. In this exterior, information and learning about science, society and technologies are created.

For the subject to receive teacher training, he must want to do it, otherwise it is impossible to obtain it. You also have to guide the teacher on the right path, have good access, good manners and encourage him to learn and see the reality of training.

Training is a practice that has to be done. The training is to specify:

- Know what to do in natural and social sciences, mathematics, language, sports, arts, among others.
- How society works if it practices the social, diversity, inclusion or consumption, efficiency or competitiveness.
- Empower the subject and its subjectivity, teach and continue teaching.

The subject who teaches is a person who is determined to always learn and accompany the other subjects to learning. On the other hand, Goethe stated that pedagogical knowledge, which is an experience, is to know oneself, to understand what it is.

When we talk about educational practice, it is a saying, an intervention and wanting the other person to act.

Therefore, it can be stated that pedagogical practice affirms that:

- Theoretical and practical pedagogical models used at the various levels of education.
- Pluriculturality of concepts that are part of different fields of understanding, collected and inserted by pedagogy.
- Models of speeches in educational institutions in which pedagogical practices are carried out.

The social characteristics that have been known by the pedagogical practice in the educational institutions of a society that assigns some actions to the subjects who carry out the educational practice. In synthesis with this explanation, it makes understanding the pedagogical as theory and practice, this helps teachers to enter into a relationship with knowledge and with the social event that is weak to the specificity of history.

Before starting a training you must know that the other person has knowledge; you only have to structure personal experience, discipline and the narrow limits of school knowledge, nothing more. All this school knowledge has its origin in science and the disciplines have their origin in different cultures, new knowledge of society in general, experience of each one and group, of new forms of work. When talking about training, it must be treated as a set of language, reality and subjectivity, such training would not be possible if there were no relationships between subjects, between institutions and the external world of technologies, culture, knowledge. Training happens when the person is in motion, if he is dynamic, if he is motivated, restless, if he relates his needs of himself with the outside.

The subject is made up of the same material as information, technology and the latest experiences. Said subject must have strength to be able to train, for this reason he must have the greatest possible access to it.

There is a training technique called accompaniment, it works with classroom visits, micro workshops and workshops in which teaching is updated, this is done by the trainer who provides pedagogical support. With this technique you also learn as a team. With the accompaniment the quality of learning is increased. The person who directs the accompaniment has a lot of knowledge and knowledge to provide to others.

According to Cobo et Bustos (), the problem with teacher training is that they have to be given training, which is why there must be good trainers and fundamental pillars in social construction.

The problems identified regarding training are:

- Distance between the current institution and the institution to be constituted: when you think about training, you have to do it in the one that exists and the one that remains to be done.
- Little debate on education: how to train the teacher to continually think about the student.
- Distance between the theoretical training that the teachers in training have and the realities to which they oppose when they practice.

The reality of the school: it is essential to separate the inside of the school from the outside, teachers must create good learning situations, when you work on education you have to have education in it, improve the quality of education.

It is very important that the teacher has information about the child's illness, such as cancer. They can help health problems become a risk for them of social exclusion or educational disadvantage (Grau, 2004; Ortiz and Serrados, 2002).

As Pérez (2018) maintains, the teachers of their school should talk with the teachers of the hospital classrooms, to give them essential information on how they have worked in the hospital classroom. In this way each child will know how to join their school life, they have to carry out the same activities and work as in the hospital classroom, since previously said hospital classroom works as in the child's school of reference.

The teacher must know about oncology to know how to act in each case, if a child oncology patient has severe neurological sequelae and needs an adaptation of this, this adaptation can be provided by the physiotherapy and neuropsychological rehabilitation team of the unit in coordination with the school.

Information about oncology is vital, in the case of early childhood education, when students have oncology problems, they first work on curricular activities and then play. In the case of primary education, students work first on the areas that require more concentration and then work on the game.

The hospital classroom teacher is in charge of speaking with the teacher of the reference school. He is an intermediary between the school, families and the rest of the health personnel (Serradas, 2015).

## **6.-Educational inclusion.**

Children, even if they have a disease, do not have to condition access to vital schooling for their present and future. Both the class and the teacher are vital for good teaching-learning. The teacher must support them to maintain their academic rhythm and increase their social relationships. These are important for the coordination that exists between the teacher with the health personnel and the family. This way it is known which competencies and objectives are the appropriate ones. At the same time that the standards are clarified and there is awareness of what can be valued, good activities are carried out for the evaluation. As Grau (2005) explains, childhood leukemia and brain tumors cause school absenteeism, so it is essential to have services that benefit school monitoring (hospital classrooms, home teaching and adaptations in the reference school), so that there is inclusion, it must be established a particular work

plan that involves the child's situation and the possible changes that may occur. This must be done in all educational services.

Schorr-Ribera (1993) the teacher has to help the child control his / her disorders, he / she must do it by encouraging the child to express his / her feelings, when he / she is angry, take him / her to do physical activities, help them make more friends in the yard , help them make decisions, try not to cry, talk to them with affection, if they do not control their toilets, do not punish them, be calm during attacks of anger, talk to the family so that a family member gives them special attention, provide them with some information cancer and that the child actively collaborate in a class project.

Having a commitment to education during treatment is a complicated problem for teachers, professionals and children with cancer. Educational plans must be made to diagnose and work on non-academic variables, such as the relationship with peers, and this can also influence the academic issue.

The teacher and the health workers should always be on the child with cancer, since they show feelings of loneliness, sadness and resignation, all this affects their psychological effect as stated by Monteros (2017). Mohamed (2017) states that the schools would have to work on strategies and interventions to work on the negative effects linked to health, which intervene in education. These children must have a healthy, safe and supportive environment for all children.

According to the research by Melero (2018), teachers do not have much information about cancer and are informed a lot on the radio and television. However, teachers believe that the disease should be detected as soon as possible. However, teachers consider that the disease should be detected as soon as possible, in this way they can have a good teaching-learning and not affect the relationship with other classmates, since the teacher is of vital importance to them /ace.

## **7.-Conclusion.**

This literature review has been carried out because today there should be more information about it and teachers should have more information about cancer. Before in the past, it was a chronic disease and many people die of it but little by little there has been a lot of evolution and the survival rate has risen. It may be the case of children who attend school and present a strange symptomatology and it is cancer, for this reason teachers should know about the subject. Likewise, if the student body suffers from cancer, it does not have to be excluded, there must always be inclusion, children always have to be safe and the environment has to be adequate. On the other hand, prevention should be studied in oncology, it is very important to prevent people from

having cancer so that in the future they have quality of life and if they suffer from cancer, to be able to help them overcome it and have a good life.

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