

## Body Image in Children with Cancer

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### ABSTRACT

Children with cancer face a variety of difficulties. This review looked at studies that looked at how children with cancer felt about their bodies using qualitative methodologies. Frequent hospital visits, medicines, and invasive medical procedures disturb the usual life and routine of children with cancer, forcing them to cope with changes in their physical appearance as well as anxieties about their future. The body images are changed from one person to another because it is subjective in nature. The human characteristics such as self-protective tactics, self-identity loss, body distance and support has been reflected via the metasyntheses. Children with cancer face a variety of issues related to changes in their body image. Treatment courses that are repeated often result in the loss of a regular, organized existence, as well as alterations in interpersonal interactions. Individuals with cancer adopt self-protective, coping techniques in reaction to changes in their body image. If the children suffered by cancer their body faces numerous changes which will affect their future outlook.

**Keywords:** *Children, Cancer, Body Image, Interpersonal Interactions, Physical Appearance*

Now-a-days cancer is one of the serious diseases to the children, even though, the advance therapeutic are presented the mortality rate is increased gradually. Although the 10- year general survival probability has increased to 83 percent, almost all victims suffer from a serious health problem by the age of 50, which can be severe, debilitating, life-threatening, or deadly. Having a kid afflicted with cancer, a potentially fatal disease, is a life-changing and distressing situation a parent can go through. Fear of mortality, treatment requirements, complications, financial strain, and a bad influence on family ties all influence the parent's life. Apart from the post-diagnosis severe stress, parents must immediately get familiar with a substantial amount of cancer-related material while also modifying their responsibilities and routines to meet the child's immediate requirements. Although there are limitations in analyzing the data, this stressful scenario could theoretically have detrimental implications for the parents' relationship.

Children's illness has been regarded as a frustrating, onerous, and even terrible experience for those who must deal with it, and rightly so. Such youngsters are exposed to a wide range of stressors, involving bodily dignity concerns, frequent invasive operations, disagreeable treatment regimens with many somatic side effects, and considerable physical changes.

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Isolation from the child's peer group is also common, as are interruptions in typical education, family, and social activities, all of which arise in the context of a serious threat to their life. There is still a chance of relapse, as well as an elevated risk of several treatment-related late sequelae and a second tumor for survivors. In these children, it's normal to assume an increasing likelihood of adjustment problems and affective discomfort. Self-report investigations, on the other hand, have generally failed to show a rise in adjustment issues or affective suffering in kids with cancer. Most self-report research has found that children with cancer adjust and also, if not better than, their healthy classmates.

The adaptive style concept is also introduced in this review study as a framework for evaluating the positive transition of children with cancer. A review of the literature is provided, suggesting that the vast majority of the data validates the notion of kids with cancer as unusually well adjusted. The adaptive style paradigm is next described, followed by a review of data that show a high incidence of a restrictive adaptive form in children with cancer. There are investigations provided that look at the association between adaptation style and anxiety, stress disorder, somatic indicators, and life quality results, and they show that those with a restrictive adaptive form had lower levels of discomfort. Following that, ongoing research from our group is presented, with preliminary data indicating that sustaining a RAS has no substantial physiological consequences. As a result, repressive adaptability is promoted as a path to recovery in kids with cancer, who are viewed as a flourishing or thriving population as a whole. RA is offered as one of several probable reasons for the psychological thriving seen in sick children, using a positive psychology framework. The study finishes with a brief discussion of other positive thinking constructs, highlighting their potential significance for sick children and as upcoming research objectives.

### **LITERATURE REVIEW**

In comparison to normative data, the literature on parental psychological health reviews worse psychosocial and physical quality of life (QoL), such as enhanced levels of distress like anxiousness, feelings of hopelessness, sleep problems, somatic illnesses, fear of tumor recurrence, comprehensive fear and tiredness, and PTS illnesses. [1-5] In addition, research shows that moms of young cancer patients are more prone to anxiety and its effects than mothers of healthy kids or dads. Parental burnout signs, such as emotional tiredness as a result of continuous and extreme stress, are underrepresented. [6-7]

Although the average time of onset is unknown, a prior study showed that parental fatigue can develop as soon as 6 months after diagnosis. [8] It is realistic to suppose that burnout may emerge early in the lives of parents dealing with pediatric cancer, and clinicians must be aware of and alert to these signs. [9] Siblings of kids with cancer, like their parents, may experience symptoms and unpleasant feelings as a result of the family's changing daily activities and their parents' reduced emotional and physical availability. [10]

The requirement for creating interventions to promote the whole family, especially mothers of children suffering from cancer, has been substantiated by the publication of evidence-based psycho-social norms for kids with cancer, that incorporate psychological support for siblings and parents of sick children. [11] Familial assistance through psychological therapies is critical in increasing a child's welfare and therapy success. CBT, PSST, and family counseling are just a few examples of these kinds of treatments. [12]

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All of the therapies try to change parents behavior, to improve outcomes for children. [13] Personalized techniques are urgently needed to help clinicians identify the most suitable sort of interference that can considerably increase psychological health and encourage the activities to help parents adjust to their child's diagnosis of cancer. [14] CBT is a set of tactics aimed at modifying behavioral and social factors which may intensify or cause symptoms, and it decreases symptoms and avoids relapse by correcting inappropriate thoughts, emotions, and actions. PSST seeks to improve adaptive coping and behavioral competence, as well as minimize daily stress, by incorporating several consecutive steps: statement of the problem, solution formulation, decision-making, solution execution, and validation. [15-18]

CBT and PSST have been shown to improve anxiety and depression in families of sick children in early studies. [19] Aside from those main techniques, relevant studies also test group-based treatment plans which helps parents to control their emotions and used to support the children and family to recover this situation. Finally, some research makes use of technology, like PDA or web-based resources, to improve intervention processes. [20-23] Every therapy, regardless of its form, size, or target population, focuses on parents' ability to sustain their mental well-being while their child's treatment.

It is critical for them to get there not just for their physical and mental health, but also for their child's long-term and well-being adaption to their sickness. Despite the implementation of international standards aimed at aiding parents in the development of coping mechanisms, it is unclear which interventional programmers are evidence-based and what changes may occur. [24] As a result, the primary goal of this paper is to review the evidence for using psychological therapies directed at families throughout their child's active cancer treatment and give recommendations for future research. [25] The family must adjust to a new environment that includes extensive hospital stays, rigorous therapy, several losses, and alterations in family ties and habits that may make it difficult for the kid and family to accomplish developmental responsibilities.

Invasive processes, side effects, disruption of school and interpersonal routines, interruption of leisure time, dietary changes, self-concept, and self-image changes, uncertainty about how the diagnosis will progress, mistrust, periodic hospitalization, severe discomfort, detachment from relatives and familiar locations, and failures that harm socialization and intrude in personal relationships are all things that a kid or teenage undergoing diagnosis must deal with. [26] Changes in family connections can affect school efficiency, cause pain due to isolation while the patient is in the clinic, and cause ambiguity, sorrow, psychosocial dysfunction, fear of frustration, somatic illnesses, jealousy, separation, preoccupation, and fear in the patient's siblings. Siblings, on the other hand, could be active in the care of relatives, assisting with home duties and providing comfort. [27]

Fear of recurrence, fear, the need to integrate data obtained, the care offered to healthy kids, tries to adapt to the innovative health status, provide treatment in the occasion of adverse effects, and give treatment for interurrences, among many other circumstances that harm the family's life quality, are among the challenges faced by the patient's parents. [28] Given the horrible circumstances in which the patient's parents are placed, it is critical to determine the psychosocial effect on caregivers to comprehend their experiences and develop effective psychological therapies. This article presents an integrative assessment of publications reported between 1997 and 2010 on the psychosocial elements of juvenile cancer therapy, with a focus on parental psychosocial concerns. [29]

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[30-35] Children with cancer face a wide range of psychosocial concerns, which necessitates a particular approach to conceptualizing and operationalizing the problems they face. Elevated levels of despair, anxiety, and death fears are all examples of psychosocial impacts. Patients and relatives can better understand and operationalize the psychosocial burden of cancer by dividing psychosocial functioning into areas. Patients often can learn to prioritize the need for psychological and behavioral therapies, guiding the therapy focus in this direction.

[49] investigated the psychological reactions of cancer patients after obtaining a diagnosis. The study's goal was to learn more about the link between communication techniques and patients' psychological responses. The technique involved surveying 191 individuals with recently diagnosed cancer 4 months after their initial visit at the Sydney melanoma unit on their communication process and satisfaction with it. In [47] positive thinking approaches are discussed to adapt the cancer affected patients in real-world. The goal of this study was to offer the adaptable style model as a heuristic framework for assessing positive adaptation in sick children, as well as to incorporate the findings on repressive adaptive type into a wider concept of positive thinking.

[45] carried out research on evidence-based treatment for child cancer victims and families. The study's goal was to compile a list of available empirical reports on psychological therapies for kids with cancer and their parents, as well as to suggest future research directions. The methodology comprised a summary of research outcomes in four different areas.

[48] did a study with siblings of pediatric cancer patients to see if they could benefit from psychosocial counseling. The purpose of this work is to summarise the empirical data on the efficacy of psychosocial treatment with siblings, as well as to calculate the EZ whenever feasible. Several online literature databases were used to perform the research. [46] investigated the psychosocial functioning of children with cancer. The goal of this study was to discuss the development of pediatric psycho-oncology and to review the literature on the psychological effects of pediatric cancer and survival. [36-39] Reviewing the literature on sickness communication and given consent, operational pain, late impact, mental trauma, resilience and adaptation, and particular risk populations was the strategy employed in this study.

[44] did a study to determine if Ego Resilience (ER) and Effortful control (EC) contribute to positive QOL in pediatric cancer patients to better understand the scope of review of the literature in both developmental psychology and pediatric cancer.

[50] researched to determine the impact of pediatric cancer on young adults' life quality. The study included 34 females and 24 males who were diagnosed with cancer as children in Sweden between 1983 and 2003 at the same childhood cancer center. The surviving showed signs of increased psychological growth. The ability to live a life similar to peers and happiness with the existing way of existence were the key characteristics that influenced QOL during therapy and after treatment, respectively. During treatment, the limits were a lack of school assistance and a poor connection with siblings.

[43] investigated the prevalence of Post-Traumatic Stress Disorder in pediatric cancer sufferers and survivors. PSS was given to them together with CBCL and PIC. The findings showed that a whole spectrum of post-traumatic stress disorder symptoms can develop in

children during cancer treatment, but that off-treatment pediatric cancer survivors have no higher rate of post-traumatic stress disorder than epidemiological estimates from the general public.

### **METHODS**

The main objective of the metasynthesis analysis helps to understand the patient health and qualitative findings. The identified health measurement used to increase the lifetime policies and care taking procedure (Finfgeld, 2003). Traditional methods [40] does not dealing any caretaking procedure; therefore, the qualitative analysis placed an crucial role to understand their health-condition. The predicted qualitative studies used to identify the relationship between patient current health conditions and respective treatments. To meet this goal, in this work, Qualitative Assessment and Review Instrument (QARI) utilized. The QARI software is developed by Joanna Briggs Institute that helps to researchers to understand the clinical data. The software used to analyze, appraise, manage and synthesize the data with effective manner. The QARI software has reporting functions, synthesis functions and appraisal scales that improve the overall qualitative data analysis.

#### *Participants*

In this study, 6 years children's are selected to capture the body images. The children age may varied from 6 to 20 years there may be adolescent and children who ever affected by cancer. The participants are suffered by any kind of cancers, symptoms, severity and type. The complete set of details are collected from disease infected people.

#### *Phenomena of interest*

This analysis concentrate on the cancer affected people to capture the body images because the images are varied from normal people.

#### *Types of studies*

Once the data is collected from cancer infected people, the gathered data is processed in terms of qualitative analysis. This process uses the grounded theory. Hermeneutic phenomenology, phenomenology and ethnography. During the analysis, system uses the unpublished and published studies from Chinese and English language (1960 to October 2010) to reduces the multilingual research study problem.

#### *Factors that Affect Psychosocial Functioning*

In pediatric psychosocial oncology, a variety of factors will impact the level of psychosocial functioning. Organizing the concerns into discrete categories is frequently advantageous from a teaching standpoint. The following domains, while not exhaustive, show areas that can be used to inform patients and family members about the condition, treatment, and outcome.

#### **Disease Site**

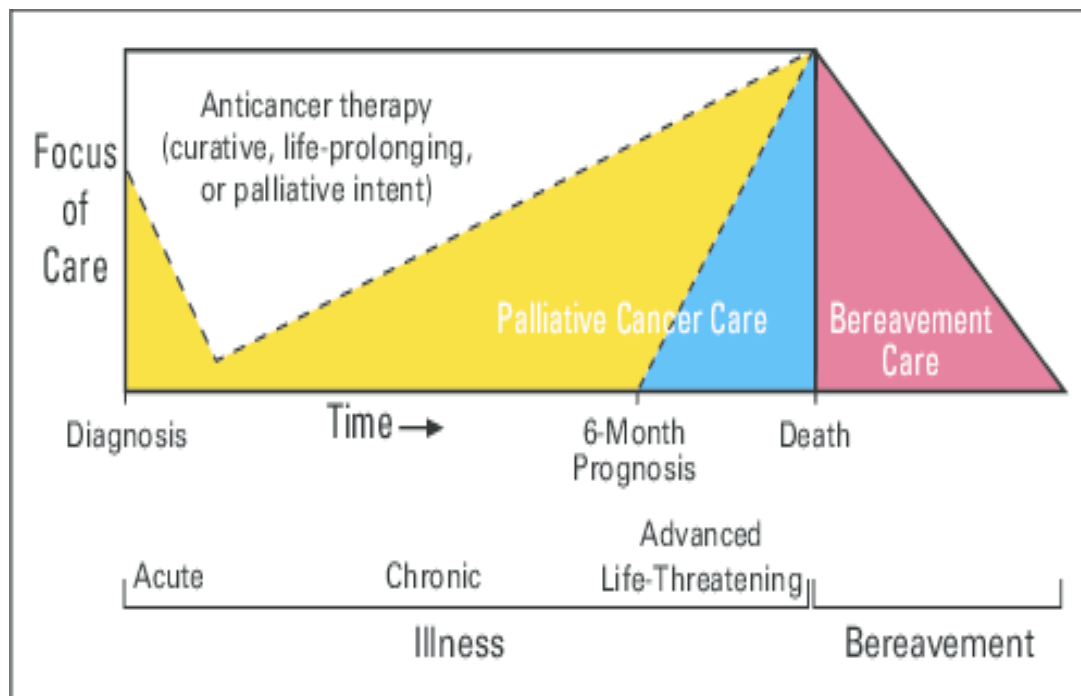
The quantity and severity of cancer's impact are determined by a range of factors, but the key effect is the disease site, according to a psychosocial cancer study. The function of the diseased body part in an individual's self-image and body health, on the other hand, is highly dependent on how the person has established his or her self-identity and position in the family and community in general. To aid the person in his or her mental recovery, healthcare practitioners must completely comprehend the importance the patient places on the damaged bodily part. Most of the essential categories of the patient's life can be significantly impacted by cancer. Furthermore, because the child is still developing, cancer might interfere with

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identity development and have a mental effect on the self. Physiological dysfunction, whether with or without deformity, can make it difficult to communicate effectively with a therapist and may have ramifications for personal and group therapy. Because of the altered sensation of the body, psychological rehabilitation may be harder, culminating in severe psychological trauma.

### Palliative Cancer Care

Receiving palliative care to alleviate symptoms and improve overall health is another element that influences psychosocial performance. The nature and execution of the spectrum of oncology therapies, and eventually palliative services, have altered as the field of psychosocial cancer has grown and developed. Patients with chronic disease's psychosocial condition vary based on symptom severity, pharmaceutical effectiveness, familial reaction (or lack thereof), and a variety of other factors. Sadly, there are still gaps in the palliation of children with cancer. Palliative care for children is complicated and multifaceted. Families with kids who have terminal brain tumors, for example, face different challenges that are unlike those faced by families with kids who have a fixable disorder. Parents whose chronically ill children had sleep difficulties, pain, and worry were found to have a higher risk of long-term psychological morbidity, according to research. The palliative cancer care approach is depicted in Figure 1.

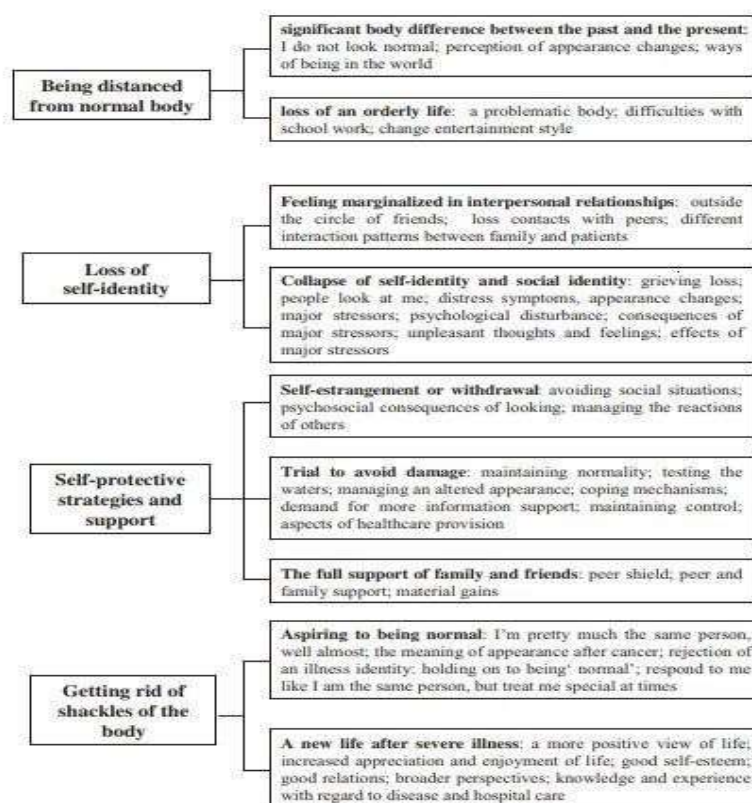


*Figure 1 Palliative Cancer Care Model*

## RESULTS

As said earlier, the data is collected from cancer affected people whose age from 6 to 20. In addition to this, several existing research studies also discussed to form the database. Here around 337 papers are investigated to obtain data; 8 papers are included and 12 paper are critically appraised. From the analysis, 41 findings are formed into 9 categories and 4 syntheses. The 4 metasyntheses consists of self-identity loss, body distance, physical shackles and self-protective strategies (Fig.2)

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*Figure 2. Categories of Metasynthesis*

### ***Synthesis 1: being distanced from the body***

The cancer affected children feel tired and physically fatigue while giving the medical treatment. The medical treatment changes the body functions and activities when compared to the disease infected body. The body is continuously examined which is categorized into 6 findings for synthesis the human body. The synthesis helps to healthcare provider and nurse to identify their thoughts, emotions and changes in functions.

- **Significant body difference between the past and the present:** Once the people it may either adolescent or children influenced by cancer, their appearance always ugly, abnormal, unattractive and weak compared to the normal body images. They continuously worried about their body condition and envy with healthier body people. Adolescent continuously monitoring their changes, appearance, moods and emotions which are reported to the caretaker for improving their condition. These changes are used to improve their treatment and noticed abnormal situation helps to analyze their health details in-depth. Then the people suffered by cancer, they feeling difficulties while giving the treatment. The treatment creates the changes in their body, physical changes and symptoms changes etc. In addition to this, they are feel weakling, envy with normal people, aliens and fools.
- **Loss of an orderly life:** As said earlier, the cancer treatments change the people mindset and causes the physical fatigue. Therefore, continuous learning and encouraging is provided to recover this situation. Most of the studies clearly states that, if the people affected by cancer they are facing lot of physical problems. The cancer minimize the immunological functions, affects fatigue and causes for the infirmity. If the people suffered by cancer they are fails to concentrate on daily activities and functions because of the hospitalization. Therefore, the adolescent with cancer patient

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requires the schoolwork for engaging their activities and manage the energy in the hard situation.

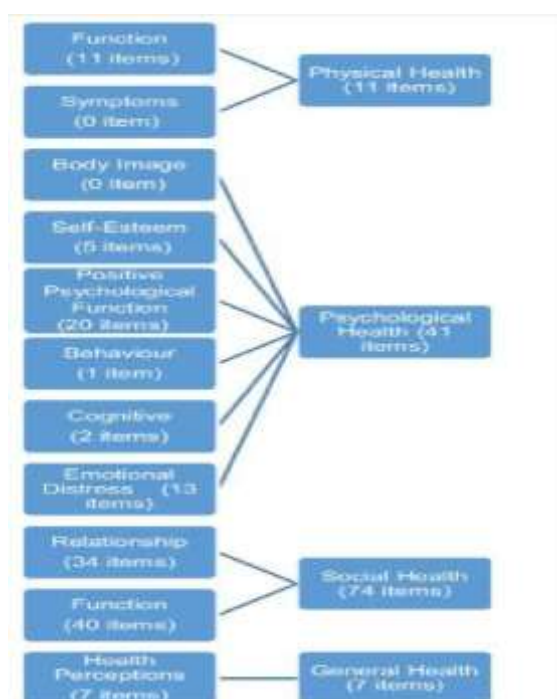
### *Descriptions of the participants' quality of life*

Table 2 lists the items, as well as the principal subdomains and domains they correspond to, as well as the criteria utilized in Figures 3 and 4. All dichotomized variables with coefficients greater than 0.5 are raised, and numerical statistics and frequencies are shown. The correlation criterion was met by 65 items out of 134. 6 missing data in the basic health area and 4 missing values in the psychological area were found in total. The average for each item was used to substitute these values. In the social and physical domains, no missing parameters were obtained. The great bulk of these items related to social (n = 32) and psychological (n = 20) elements of treatment after and during treatment, according to the findings.

**Table 2: Quality of life, physical and general health descriptions**

Major domain	Subdomain	Factors presented in Figure 3 and Figure 4	Corresponding items (study-specific questionnaire) with correlations >0.5	High ranking, n (%)
GeH	Health perception	GeH satisfaction	I am satisfied with my present life situation.	46 (80.7)
			I feel completely healthy	45 (75.0)
GeH	Health perception	GeH transition	It took a long time before life was similar to before the disease.	29 (50.0)
			Life never became similar to before the disease.	37 (63.8)
			I felt healthy after completion of treatment.	29 (50.9)
			Despite recommendations to be careful, I lived like everyone else.	24 (46.2)
PH	Function	PH ability	I have felt challenged by authorities and insurance companies	3 (5.3)
			My possibilities concerning work has been reduced.	8 (13.6)
			My possibilities concerning education has been reduced.	8 (13.6)
PH	Function	PH school attendance	I attended school whenever possible.	44 (77.2)
PH	Function	PH limitation	I have physical limitations due to my disease and treatment	20 (32.8)
			I did not perform military service even though I wanted to.	7 (14.9)

To acquire an understanding of the content, all items in the study-specific questionnaire relating to QOL (n = 134) were reviewed numerous times. In accord with the logical content analysis principle as presented. According to the subdomains categories shown in [Figure 3], each object was assigned a theoretical code.



**Figure 3: the classification matrix and item range from the study-specific survey.**



### *Synthesis 2: loss of self-identity*

The continuous hospitalization of cancer people leads to several physical, social and mental problems such as uncertainty in sense, autonomy loss, contact loss, social losses, minimizing family interactions and changes in their lifestyle. In addition to this, discomfort with normal people, physical suffering, discontinue the school life and abrupt changes in lifestyle. From the analysis, around 12 findings are investigated that are grouped into two types which is further split into the synthesis according to the self-identity loss. Therefore, the healthcare taker should taking the responsible for building the interpersonal relationship and communication between the normal people for developing the self-identity.

- **Feeling marginalized in interpersonal relationships:** Once the patient either adolescent or children suffered by cancer they requires the continuous hospitalization for treatment process. Therefore, the patients are admitted in the hospital which causes to lose the contacts and friends. Then the people interact with only the family members which also increases the physical discomforts and mood changes. The adolescent who affects the cancer also stopped to go schooling and limited their interactions with friends in classroom. Especially, the cancer infected children shout their mother and create the negative thoughts and opinion towards the mother. In addition to this, the negative thoughts and interaction with their father also changed because of the illness.
- **Collapse of self-identity and social identity:** The cancer infected people loss their self-confidence because of the continuous treatment. More ever, the treatment may produce positive and negative results which frequently creates the pain and affects the self-control. The treatment is obviously painful that completely change their lifestyle and identify. According to the various studies, if the adolescent suffered by cancer their appearance and thinking is completely changed that will create the physical discomfort. Most of the people feels hair loss before/after the treatment; this kind of changes are difficult t hide. Several people tease which will hurt most and that causes for the negative thoughts, anxiety, insecurity and negative ideas to the patients. The drastic changes of their behavior fully affects their personal life, school life, family life and social activities. This will create the impact in their hospitalization and psychological disturbance.

### *Synthesis 3: self-protective strategies and support*

The cancer changes the people body conditions that damages the self-confidence and completeness. Therefore, children who affected cancer should monitored continuously to improve the response, interaction and communication to support the hospitalization. The self-protective strategies must teach them to manage the emotional deviations. From the analysis, 13 findings are identified which are clustered into three types; it has been divided further based on the synthesis which supports the self-protective strategies. The created strategies should support the body changes and interpersonal relationship problems effectively.

- **Self-estrangement arising from withdrawal:** After identifying the cancer, adolescent body leads to meet several changes that is one of the main issues while making interaction with relations and friends. Most of the people make them tease which causes for the anxious about the physical appearance related questions. Therefore, most of the people avoiding the social interaction and maintain the social isolation. From the various studies, it clearly states that people who infected by cancer with major body change completely avoids the interaction with friends and families also avoid the social activities.

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- **Full support of family and friends:** If the adolescent or cancer affected children interact with society, friends and families as it is, then they feel difference in physical appearance and emotions. The positive thoughts, opinions and emotion will create the positive impact in their hospitalization also create security. The positive support from parents and friends used to recover from the disease with emotional supports. Several studies clearly state that, if the people having the positive thoughts and mind set it will create the great changes in treatment that will help to change the body image. The physical changes also changed by their positive opinions and eliminates the heart feelings related thoughts successfully.

### *Synthesis 4: getting rid of the shackles of the body*

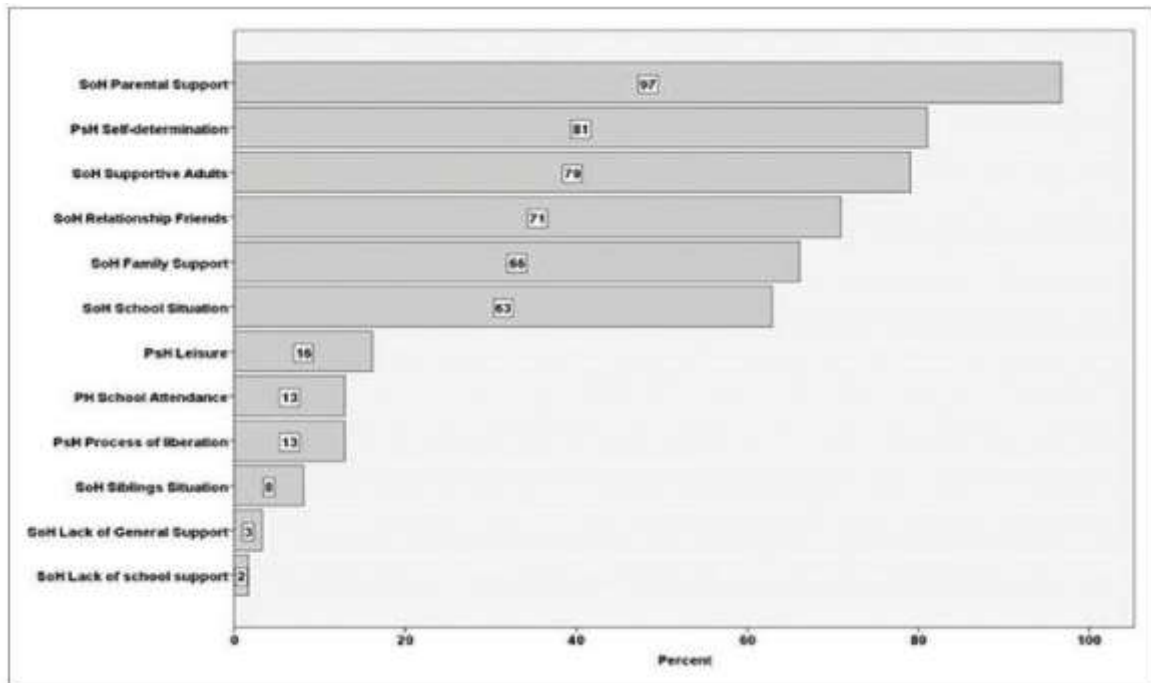
After confirming the serious life-threatening problems, the positive and mature people able to handle the frustration problems effectively. Their positive mind set helps to dealing their parents, friends, family and society with different perspective. From the analysis, 10 findings are identified which are clustered using two types which is further divided into the synthesis to identify the shackles of the body. This analysis used to identify the patient illness, body changes, physical changes and respective treatment procedures.

- **Aspiring to being normal:** As said, once the children or adolescent suffered by cancer their body condition is changed before and after. If the people having the positive thoughts, then the treatment is goes in normal manner without affecting the people mind set. This kind of people avoid the labels. However, this kind of the people feels several changes such as hair loss, appearance changes which will causes the negative impact while hospitalization. Then the patients are fails to cooperate with treatment and create more difficulties.

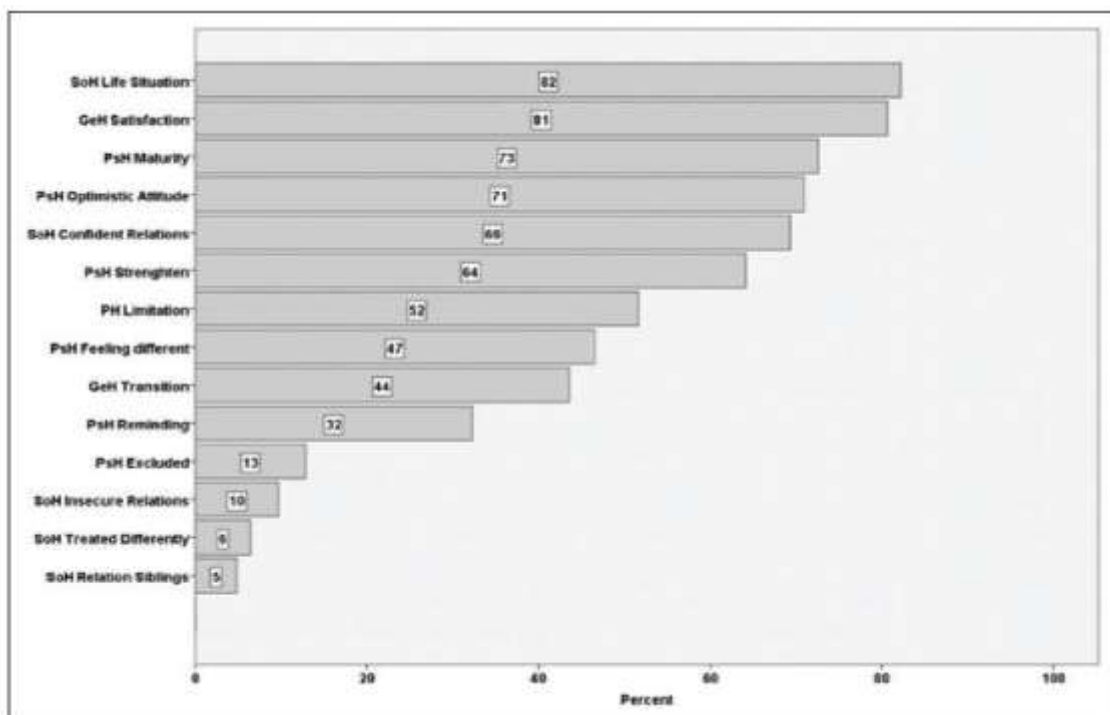
### *Factors influencing the quality of life during and after treatment*

Figure 4 shows the results of factors impacting QOL during and after treatment (high values were 63 percent and above during therapy, and maximum levels were 32 percent and above after diagnosis). Parental support (95 percent) had the greatest impact during therapy, whereas enjoying a life comparable to their peers (79 percent) and being well and content with life had the greatest impact following treatment (80 percent). Limitations impacting QOL in this cohort were identified in levels equal to 17 percent and below Fig. 4 and similar to 18 percent and below Figure 5. The lowest scores were linked to an absence of school assistance during therapy and long-term deterioration of connections with siblings.

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*Figure 4: Quality of life during treatment is influenced by factors.*



*Figure 5 Factors that influence post-treatment quality of life*

### **CONCLUSION**

The children and adolescent both suffered mentally and physically when giving the cancer treatment because they are facing several problem respect to the body changes. The continuous hospitalization affects the people regular life styles and physical health. The changes in body condition creates the barriers while making the interactions. Therefore, several self-protective strategies are developed to reduces the life-threatening problems and

improve the positive thoughts. However, during the treatment process, people facing several physical discomforts, mental changes, physical changes and social losses. To overcome this problem, appropriate support and care taken should be given for improving their life style and reduce the high body change. Several researcher providing frequent ideas and supports to improve their life style and confidentiality. The research tool also used to minimize the psychological stress and abrupt body image changes.

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### ***Conflict of Interest***

The author(s) declared no conflict of interest.

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