Annals of Research in Oncology
Vol. 4(2), 95-101, 2024

CASE REPORT

PSYCHOSOCIAL MANAGEMENT OF FOREIGN CANCER ADOLESCENTS AND THEIR CAREGIVERS: A CASE REPORT

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ABSTRACT: The psychological care of adolescent with cancer and their caregiver is a crucial aspect to assure adherence of care and clinical advantages especially for foreign families which leave their country in search of specialized oncological treatment. In these particular familiar conditions, it is even more important to examine the concordance between adolescent patients and caregiver on their experience from an emotional point of view in order to address their needs and to provide personalized support and management.
This case report explores the agreement between a 16 years-old male young patient with multi-treatment metastatic nasopharyngeal carcinoma and his mother about their emotional and behavioral symptoms. The administration of different reliable and valid instruments (*i.e.*, Child Behavior Checklist - CBCL, Youth Self-Report - YSR, Hospital Anxiety and Depression Scale - HADS and Impact of Event Scale-Revised - IES-R) for assessing symptoms evidence a bias between adolescent and caregiver which report more problems than adolescent did. In order to ensure a personalized management for the family as a whole, a complete assessment of the psychological state of patients and caregivers through multiple informants is recommended especially when they are experiencing multiple traumatic experiences.

Doi: 10.48286/aro.2024.88

Impact statement: The study highlights the importance of structured psychosocial support for adolescent cancer patients and caregivers, emphasizing understanding emotions and behaviors to provide holistic care addressing both physical and psychological needs.

Key words: *adolescent; cancer; psychosocial management; young adult; case report.*

Received: May 14, 2024/**Accepted**: June 13, 2024/
Published: June 30, 2024

INTRODUCTION

Adolescents with cancer represent a special category of patients, with unique epidemiological, biological, clinical, and psychosocial characteristics, so much so that they require a dedicated clinical and psychosocial management. Many Italian centers belonging to the Italian Association of Pediatric Hematology and Oncology (Associazione Italiana Ematologia Oncologia Pediatrica, AIEOP), have various dedicated oncology programs for cancer adolescents (1) which also take into account the cultural background of these patients. In fact, the number of foreign patients that have migrated to Italy for several medical reasons have gradually increased over the years, from 31

cases, 2.5% of the total in 1999 to 130 cases, 8.1% of the total in 2008, with an average of about 115 cases/year (2). Although there is no certain data, the number of foreign patients is probably increased in the last years after the arrival of Ukrainian families in AIEOP centers (3-4), (about 33,000 cancer patients of which 1% are pediatric) (5).

The psychosocial management, adopted by the centers starts with an emotional assessment of the foreign adolescent patients and their caregivers (usually the mother). This is a crucial aspect of clinical path, particularly due to the potential disparities in emotional experiences between patients and caregivers. Cancer diagnosis in fact could be experienced differently between adolescent patients, who can feel angry and shocked for the situation and caregivers which often are worried and aware with the gravity of the disease.

Researches previously conducted both in oncology (6-7) and in other clinical setting (8-9) confirm disparities between parental and adolescent perspectives by suggesting that the discordance can be also influenced by individual differences, maternal depressive symptoms and multiple traumas previously experienced, which may introduce biases in reporting. In adolescence oncology setting clinical observation has shown professionals that adolescents and mothers can experience the traumatic experiences of cancer and migration differently, but no data are available to support that.

The hypothesis is that the mother, in addition to coping with her adolescent illness, often contend with pre-existing psychological distress exacerbated by migration experiences, which can influence parental caregiving dynamics and the parent-adolescent relationship (10).

This consideration therefore makes indispensable an assessment about the agreement of cancer adolescent and mother point of view about emotional and behavioral symptoms, since that evaluating the holds significant clinical relevance for designing psychological interventions for both adolescents and caregivers (11).

PATIENT INFORMATION

We reported the case of a male adolescent diagnosed with metastatic nasopharyngeal carcinoma undergoing multiple treatments, necessitating prolonged hospitalization for chemotherapy and pain management. Notably, the family's situation was compounded by the absence of the father, who remained in Ukraine due to the ongoing conflict. Both the mother and the adolescent were relocated to Italy through a humanitarian initiative spearheaded by the Regina Margherita Children's Hospital of Turin, renowned for its pediatric oncology services (12).

Upon enrollment, the participants underwent individual consultations followed by the completion of a comprehensive screening test battery to assess their psychosocial well-being, as per the center's protocol. Ethical approval was obtained from the Ethics Committee of the Regina Margherita Children's Hospital (Protocol number: 0018330, dated 20/02/2018), and written informed consent was obtained from both the parent and the patient.

DIAGNOSTIC ASSESSMENT

Adolescent and mother completed the following questionnaires. The Child Behavior Checklist (CBCL) (13) that is a questionnaire designed to evaluate the parents' point of view about the behavioral and emotional problems of their children and adolescents aged 4 to 18 years, encompassing domains related to internalizing, social, and externalizing areas. Conversely, the Youth Self-Report (YSR) (14) is the self-reported questionnaire about the same areas compiled directly to adolescents aged 11 to 18 years.

The Hospital Anxiety and Depression Scale (HADS) (15), a validated and reliable screening tool for depression and anxiety, comprises 14 items assessing emotional states using a 4-point Likert scale. Both the mother and the adolescent provided responses regarding their own emotional states.

The Impact of Event Scale - Revised (IES-R) (16), a 22-item self-report scale, assesses subjective exposure to traumatic events, with participants indicating distress levels associated with each event over the past seven days using a 5-point scale. Similar to the HADS, the IES-R necessitates individuals to report on their emotional states, with responses provided by both the mother and the adolescent.

FINDINGS

Regards adolescent's behavioral and emotional problems, **Table 1** displays that the mother tends

Table 1. *T scores for CBCL and YSR administration.*

	CBCL	YSR
Internalizing		
Anxious/Depressed	78	70
Withdrawn/Depressed	93	68
Somatic Complaints	61	51
Social Problems	70	63
Thought Problems	67	60
Attention Problems	53	63
Externalizing		
Rule-breaking Behavior	57	51
Aggressive Behavior	53	54

to give higher scores in describing the various domains examined by the CBCL than the adolescent patient does in describing himself through the YSR (*e.g.*, CBCL Anxiety/Depression= 78 *vs.* YSR Anxiety/Depression = 70).

Both internalizing and externalizing values of the adolescent reported by the mother are consistently higher than the values reported by the adolescent patient, except for Aggressive Behavior that is the domain in which there is concordance.

Table 2 display the scores obtained by the mother and the adolescent from the administration of the HADS and of the IES-R scale. Data revealed that mother's scores about her depression, anxiety and post-traumatic stress disorder (PTSD) symptoms are higher than those of the adolescent (*i.e.*, HADS depression mother's score: 9 *vs*. HADS depression adolescent's score: 7; IES-R Avoidance mother's score: 1.87 *vs*. IES-R Avoidance adolescent's score: 0.75).

Both mother and adolescence choose the cancer diagnoses as the main traumatic event experienced.

THERAPEUTIC INTERVENTION

Following the quantitative psychosocial assessment, tailored psychological support was offered to both the mother and the adolescent by two different psychologists aiming to address their unique needs and circumstances.

The approach utilized aligns with the psychoanalytic concept of the holding environment, where the therapeutic setting provides a secure space for patients to process and express their emotions (17).

The characteristics of the setting must adapt to the patients' numerous medical commitments without distorting the therapeutic space provided. In this specific case, weekly sessions lasting forty-five minutes were arranged to provide a place for the emotional containment of anxieties associated with traumatic life events, such as oncology and migration/war. This structured, consistent approach is crucial for supporting both the psychological well-being of the patient and the caregiver, as it acknowledges the intense emotional and psychological burdens they carry (18). Furthermore, psychoanalytic literature emphasizes the importance of regular sessions in maintaining the continuity and depth of the therapeutic process, which is essential for facilitating meaningful emotional work (19). To offer timely and dedicated psychological support to the mother is fundamental for the effective management of the adolescent with cancer. As key players in the quality of the cancer journey, mothers/caregivers deserve intervention with two main aims. Firstly, it is necessary to support the mother in her role as a parent who is coping with the oncological diagnosis and any pre-ex-

Table 2. *Scores for HADS and IES-R administration.*

MOTHER			ADOLESCENT		
HADS			**HADS**		
	Depression	9		Depression	7
	Anxiety	8		Anxiety	9
IES-R			**IES-R**		
	Avoidance	1.87		Avoidance	0.75
	Intrusiveness	1.12		Intrusiveness	0.75
	Hyperarousal	1.83		Hyperarousal	1.33
	Total	35		Total	20

isting traumatic events. Additionally, it is crucial to help the mother understand and attune to the emotional state of the child affected by cancer. After eight sessions the same initial quantitative psychosocial assessment is proposed in order to verify the efficacy of the intervention and to propose possible changes.

DISCUSSION

The case-report highlights that also in the field of adolescence oncology setting the perception of the emotions and behaviors can be different among adolescent and mother/caregiver.

Considering adolescent's behavioral and emotional problems, both adolescent and mother show consistent levels of problems when the questionnaires are administered. However, mother report higher level in describing her son's state. This discrepancy is consistent with recent research which suggest that caregivers often report higher symptoms compared to adolescents' report (20-21). Two hypotheses are reported to comment on the data found. One hypothesis concerns possible depressive and/or anxious components specific to the mother that contribute to the maternal perception of the adolescent's symptomatology. This view is supported by a large body of literature confirming that, in the general population, mothers report more internalizing problems than the child and/or any other observer (22-24). Other studies have also found an association between maternal anxiety and the discrepancy between the ratings given by mothers themselves and those given by adolescents or other observers (25-26).

This hypothesis certainly needs to be evaluated given the particular condition and severe traumatic experiences of the dyad analyzed. In order to investigate this first hypothesis, it was decided to deepen both the psychological condition of the mother and of the adolescent itself. Although significant levels of depression and anxiety are confirmed in both the mother and the adolescent, the mother's values appear to be higher. These data seem to bring us back to the first hypothesis namely that mother-specific depressive and/or anxious components can contribute to the maternal perception of the adolescent's problems. In other words, we can assume that mother's view is influenced by her own depressive-anxious emotions. Obviously, this hypothesis will be tested in future studies with adequate sample and decisive statistical analyses.

However, the data found can also be read from another perspective. In fact, the primary results could be interpreted as a greater ability of the caregiver to highlight behavioral and emotional states that the cancer adolescent patient cannot explain or underestimate. Clinical and scientific experience teaches us that adolescents with cancer, particularly immediately after diagnosis, are focused on medical treatment and tend to freeze the emotional dimension if not helped to elaborate it (27-28).

To provide an adequate psychological support to adolescents and caregivers immediately after diagnosis must therefore be a gold standard in the clinical management of adolescents with cancer (**Figure 1**).

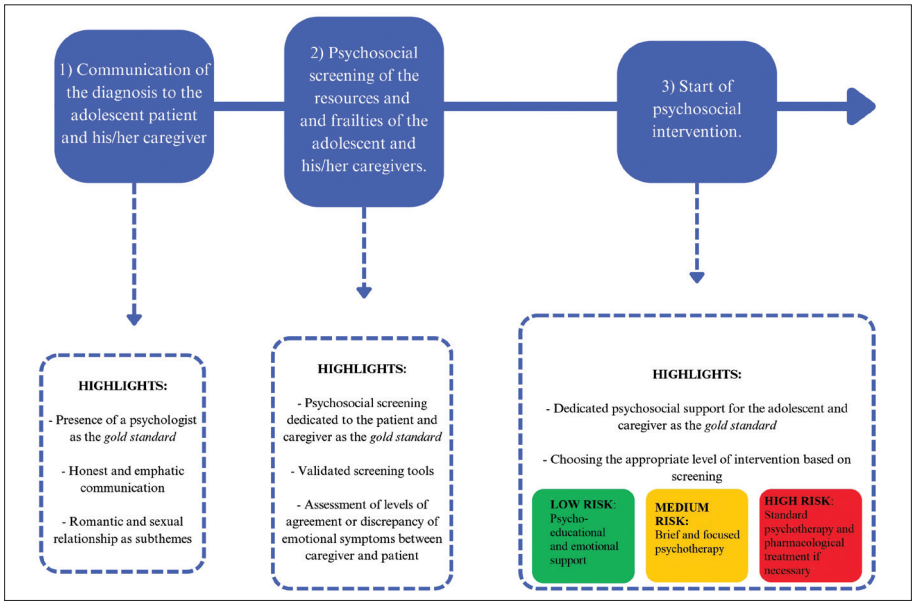

Figure 1. *Psychosocial management of adolescent with cancer and caregiver.*

In conclusion, the data presented indicate the existence of concordant but quantitatively different opinions. These differences in perceptions between mother and adolescent could be explained by the presence of a maternal bias stemming from her own symptomatology or a greater sensitivity in describing her child's psychological state or, on the contrary, a greater resistance on the part of adolescent cancer patient himself to describe his own symptomatology (29-30).

Limitations arise mainly from the nature of the single case itself and from the limited literature in psycho-oncology on this topic. Further studies are needed in this field. In fact, despite the stressful and traumatic elements presented such as war, the pediatric oncological disease seems to occupy a central position in the inner life of the subjects by confirming the necessary presence of psychological support within the oncology centers.

Further investigation is warranted to elucidate the underlying factors contributing to these disparities and to devise strategies aimed at improving mother-adolescent concordance on emotional and behavioral symptoms in order to improve their relationship and alliance essential to better enjoy the battle against cancer.

PATIENT PERSPECTIVE

Regarding the case presented here, thanks to an individual and structured psychological support work, it was possible to create a space for processing these emotions, which also led to greater emotional openness within the mother-adolescent dyad.

AKNOWLEDGMENTS

The Authors would like to acknowledge UGI OdV, ADISCO Sezione Piemonte, Fondazione Maria Teresa Lavazza and all the professionals who helped make this initiative possible.

COMPLIANCE WITH ETHICAL STANDARDS

Fundings

There were no institutional or private fundings for this article.

Conflict of interests

The Authors have declared no conflict of interests.

Availability of data and materials

All data generated or analyzed during this study are included in this published article

Authors' contributions

MG and GZ: wrote the first draft; TG: contributed additional edits to the text and comments; PQ: contributed additional edits to the text and comments; FR: contributed additional edits to the text and comments; SGV: contributed additional edits to the text and comments; FF: contributed additional edits to the text and comments. All the Authors have approved the submitted version and have agreed both to be personally accountable for the Author's own contributions and ensure that questions related to the accuracy or integrity of any part of the work, even ones in which the Author was not personally involved, are appropriately investigated, resolved, and the resolution documented in the literature.

Ethical approval

Human studies and subjects

Written informed consents were signed by parent and patient and they approved by the Ethics Committee of the Regina Margherita Children's Hospital (Protocol number: 0018330 20/02/2018).

Animal studies

N/A.

Publication ethics

Written informed consent from all the subjects and/or their legal guardian(s) for publication of identifying information in an online open-access publication has been signed. Ethics Committee of the Regina Margherita Children's Hospital, AOU - Città della Salute e della Scienza, Turin, Italy (Protocol number: 0018330 20/02/2018).

Plagiarism

Authors declare no potentially overlapping publications with the content of this manuscript and all original studies are cited as appropriate.

Data falsification and fabrication

All the data correspond to the real.

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