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RESEARCH ARTICLE (ORIGINAL)

Reactions to hair loss and coping strategies in adolescents with cancer

Reações à queda do cabelo e estratégias de enfrentamento dos adolescentes com doença oncológica

Reacciones a la caída del cabello y estrategias de afrontamiento en adolescentes con enfermedad oncológica

Cristiana Maria Pinho Oliveira [1]
https://orcid.org/0000-0002-3139-9064

Manuel Gameiro [2]
https://orcid.org/0000-0002-3630-161X

[1] University Hospital Center of São João, Porto, Portugal

[2] Health Sciences Research Unit: Nursing (UICISA: E), Nursing School of Coimbra (ESEnfC), Coimbra, Portugal

Corresponding author
Cristiana Maria Pinho Oliveira
E-mail: cristiannaoliveira@hotmail.com

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Abstract
Background: Cancer in adolescence has a significant impact on psychological and physical development, and hair loss is a major cause of anxiety and stress.
Objectives: To identify emotional reactions to hair loss in adolescents with cancer, the most frequently used coping strategies, and those perceived as most effective; to analyze the relationship between emotional reactions and the strategies used and between demographic/clinical variables and emotional reactions, strategies used, and their efficacy.
Methodology: Quantitative, cross-sectional, descriptive-correlational study with a sample of 30 adolescents.
Results: Hair loss is a large/emergency problem, and sadness/crying and fear/irritability are emotions that best describe the adolescents' reactions. The results also show the most frequently used strategies, those perceived as most effective, and the relationships between emotional reactions and coping strategies used and between demographic variables, emotional reactions, and strategies.
Conclusion: The knowledge of these adolescents' reactions to hair loss and their coping strategies is essential for a more targeted nursing practice.

Keywords: adolescent; coping; cancer disease; hair loss; nursing

Resumo
Enquadramento: O cancro na adolescência tem um impacte importante no desenvolvimento psicossocial e físico, sendo a queda do cabelo considerada foco de grande ansiedade e stresse.
Objetivos: Identificar as reações emocionais à queda do cabelo dos adolescentes com doença oncológica; as estratégias de *coping* mais utilizadas; e as percecionadas como mais eficazes; bem como, analisar as relações entre reações emocionais e estratégias utilizadas; e as relações entre variáveis demográficas/clínicas e reações emocionais, estratégias utilizadas e respetiva eficácia.
Metodologia: Estudo quantitativo, transversal, descritivo-correlacional, com uma amostra de 30 adolescentes.
Resultados: Salienta-se que a queda do cabelo é um problema considerado grande/urgente, sendo a tristeza/choro e o medo/irritabilidade as emoções que melhor descrevem a reação dos adolescentes. Os resultados indicam, também, as estratégias mais utilizadas, as percecionadas como mais eficazes e a existência de relações entre reações emocionais e estratégias de *coping* utilizadas, assim como, entre variáveis demográficas, reações emocionais e estratégias.
Conclusão: O conhecimento das reações à queda do cabelo destes adolescentes e das estratégias de enfrentamento, é essencial para uma prática de enfermagem mais direcionada.

Palavras-chave: adolescentes; *coping*; doença oncológica; queda do cabelo; enfermagem

Resumen
Marco contextual: El cáncer en los adolescentes tiene un gran impacto en el desarrollo psicosocial y físico, y la pérdida de cabello se considera un foco de gran ansiedad y estrés.
Objetivos: Identificar las reacciones emocionales a la caída del cabello de los adolescentes con enfermedad oncológica; las estrategias de *coping* más utilizadas, y las que se perciben como más eficaces; así como analizar las relaciones entre las reacciones emocionales y las estrategias utilizadas, y las relaciones entre las variables demográficas/clínicas y las reacciones emocionales, las estrategias utilizadas y su respectiva eficacia.
Metodología: Estudio cuantitativo, transversal, descriptivo-correlacional, con una muestra de 30 adolescentes.
Resultados: Se destaca que la caída del cabello es un problema considerado grande/urgente, en el cual la tristeza/llanto y el miedo/la irritabilidad son las emociones que mejor describen la reacción de los adolescentes. Los resultados también indican las estrategias más utilizadas, las percibidas como más eficaces y la existencia de relaciones entre las reacciones emocionales y las estrategias de *coping* utilizadas, así como entre las variables demográficas, las reacciones emocionales y las estrategias.
Conclusión: Conocer las reacciones a la caída del cabello de estos adolescentes y sus estrategias de afrontamiento es esencial para una práctica de enfermería más enfocada.

Palabras clave: adolescente; *coping*; enfermedad oncológica; caída del cabelo; enfermería

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Introduction

Cancer is a life-threatening illness with significant physical and psychosocial effects in adolescents (Pérez & Martínez, 2015). According to these authors, adolescents with cancer have the added burden of coping with a potentially deadly disease, its treatments, and the associated physical changes.
Chemotherapy-induced hair loss is considered a torment and encourages public labeling, leading to social restrictions (Young & Arif, 2016). The literature highlights it as the worst part of treatment, causing more anxiety and distress and requiring a deep emotional mobilization that can often lead to maladaptation (Minanni et al., 2010).
Thus, adolescents undergoing cancer treatment experience various stressful situations that require coping strategies.
To effectively empower adolescents with cancer and help them adopt strategies to better cope with hair loss, the professionals' intervention has been essentially directed toward anticipation, focusing on the problem and not so much on emotional regulation.
However, this adaptive dimension is essential, especially in the shock phase of greater emotional impact and when situations are evaluated as being out of personal control.
Scientific evidence on emotional reactions to hair loss, particularly by adolescents with cancer, is scarce. The analysis of the relationship between these reactions and the adolescents' coping strategies may be an added value for the targeted intervention of professionals, especially nurses.
In this line of thought, the following objectives were set out for this study: to identify emotional reactions to hair loss in adolescents with cancer, the most frequently used coping strategies, and those perceived as most effective by the adolescents; to analyze the relationships between emotional reactions and the adolescents' strategies to cope with hair loss, as well as the relationships between demographic (gender and age) and clinical (types of hair loss) variables and emotional reactions, the adolescents' strategies, and their perceived efficacy.

Background

In Portugal, 350 new cases of pediatric cancer are reported every year, increasing by about 1% per year. The incidence is higher in boys and the 15-19 years age group, with around 150 to 200 new cases per million adolescents (American Cancer Society, 2014).
According to the World Health Organization (WHO), adolescents are individuals in the 10-19 years age group. Adolescence is a period of transition to adulthood characterized by multiple physical, psychological, and emotional changes, namely developmental and adjustment changes (Hockenberry & Wilson, 2016; Moules et al., 2017).
In addition to the physical changes inherent to adolescence, this age group's cognitive and psychosocial development directly influences how adolescents cope with the impact of the disease and manage the sources of stress.
The diagnosis of cancer in adolescence is especially complex. At this stage, adolescents with cancer have to cope not only with the disease and associated changes but also with the specific demands of this age group. Although they have already acquired cognitive skills to perceive the magnitude of the disease, they are still not mature enough or have not enough life experiences to guide their self-efficacy to face this double conflict (Gameiro, 2012; Pérez & Martínez, 2015).
However, the psychological impact of these sources of stress on adolescents depends on protection mechanisms, including coping strategies and promotion of adaptation and resilience (Sorgen & Manne, 2002).
According to Lazarus and Folkman (1984), the coping process is the set of constantly changing cognitive and behavioral efforts to control (reduce or tolerate) situations that are assessed as *stressful* by an individual (Lima & Enumo, 2014; Pascual et al., 2016). In this way, coping refers to adaptation-oriented activities that require some effort.

Research questions

What are the emotional reactions to hair loss of adolescents with cancer?
What are the most frequently used strategies to cope with this situation?
Which of these strategies are perceived as more effective?
Is there a relationship between emotional reactions and the coping strategies used?
Is there a relationship between demographic variables (gender and age) and emotional reactions, strategies used, and their perceived efficacy?
Is there a relationship between the type of hair loss and the emotional reactions, strategies used, and their perceived efficacy?

Methodology

According to the nature of the problem and the objectives outlined, a quantitative, cross-sectional, descriptive-correlational study was conducted.
The accessible population of this study consisted of the adolescents diagnosed with cancer undergoing treatment in the pediatric cancer ward of a specialized central hospital in central Portugal during the data collection that occurred between May 5 and October 5, 2018.
The sample was obtained through a consecutive non-probability sampling method, and 30 adolescents met the following inclusion criteria: diagnosis of cancer; aged 13 to 19 years; hair loss for more than 1 month and less than 1 year; and be able to read, interpret, and write to complete the questionnaire.
Central variables were as follows: emotional reactions; coping strategies; and perceived efficacy of the strategies.
Independent variables were demographic (gender; age) and clinical (types of hair loss) variables.
Data were collected in the selected cancer ward (inpatient ward and day hospital) through the self-completion of a questionnaire addressed to adolescents.
The first part of the questionnaire aimed to collect infor-

mation about the sample's sociodemographic and clinical characteristics. Then, the *How big is your problem* scale (Elsa Support, 2016), which associated the magnitude of the problem to its reactions, was included to assess emotional reactions to hair loss. The first part of the Kidcope (Spirito et al., 1988) that assesses the distress related to the situation and the part of the Kidcope that assesses the coping strategies and their perceived efficacy were also included. Two open-ended questions were also included to assess the coping strategies.

A pre-test was applied before the application of this questionnaire. Using data from the total sample, Cronbach's alpha was calculated for the Kidcope items, which correspond to the three questions on the distress level, obtaining a value of 0.889. For the remaining Kidcope dimensions (frequency and efficacy of the coping strategies), the notion of reliability was limited to the information provided by the authors. In Spirito et al. (1988), the results attested to the temporal stability (test-retest) and the concurrent validity of the questionnaire. In addition, the widespread use of this instrument in research studies was considered relevant.

The research project received a favorable opinion from the Ethics Committee of the Health Sciences Research Unit: Nursing (UICISA: E) of the Nursing School of Coimbra. Written authorization was also obtained from the director of the pediatric cancer ward to carry out the study.

Formal authorization was obtained from the author by e-mail to use the Portuguese version of the Kidcope questionnaire.

All study participants and their father/mother were asked to give informed written consent (a form was prepared for adolescents and another for parents).

Data were analyzed using IBM SPSS Statistics software, version 24.0. Descriptive statistics techniques were used to systematize data. For inferential analysis, and given their nature and low discrimination in the measurement of central variables, they were dichotomized, and data frequencies were presented in 2x2 tables. As in almost all cases, the expected frequencies below 5 exceeded those recommended for the valid application of the $\chi 2$ test; the results of Fisher's exact tests were considered.

Sociodemographic and clinical characterization of the sample

The sample was mostly composed of boys (70.00%), aged between 13 and 18 years, living in urban (43.33%) and suburban (43.33%) areas.

Regarding the type of cancer, the majority (43.33%) of cancers were blood cancers, and the lowest percentage corresponded to gonadal tumors (13.33%). The mean time of diagnosis was 6.18 months. The sampled adolescents underwent chemotherapy, radiotherapy, and surgery. In the majority (76.67%) of participants, hair loss was fast and total. The time elapsed between hair loss and data collection ranged from 1 to 12 months.

Results

Subjective evaluation of the magnitude of the problem and prevalent emotional reaction

For the majority (60.00%) of adolescents, hair loss was a large/emergency problem. Regarding the prevalent emotional reactions, 40.00% of the sample indicated sadness/crying as the emotion that best describes their emotional reaction to hair loss, and 30.00% reported fear/irritability (Table 1).

Table 1

Sample distribution according to the subjective evaluation of the magnitude of the problem and the prevalent emotional reactions (n = 30)

Subjective Evaluation of the Magnitude of the Problem	*No.*	%	Degree	Prevalent emotional reaction	*No.*	%
Emergency	8	26.67	5	Fear/Irritability	9	30.00
Large	10	33.33	4	Sadness/Cry	12	40.00
Medium	7	23.33	3	Anger/Anxiety	4	13.33
Small	4	13.33	2	Shame/Disappointment	4	13.33
Tiny	1	3.33	1	Joy/Calm	1	3.33
Md = 4.00; $\overline{X}$ = 3.67; *SD* = 1.12				Md = 4.00; $\overline{X}$ = 3.80; *SD* = 1.12		

Note. Md = median; *SD* = standard deviation.

Emotional reactions of distress

The emotion *sadness* had a mean higher intensity than the other emotions. Although anger had the lowest intensity, it was the least common emotion in the sample (Table 2).

Table 2

Sample distribution according to the emotional reactions of distress (n = 30)

Emotional reaction		*no.*	%
Anxiety	1. not at all	1	3.33
	2. a little	4	13.33
	3. somewhat	11	36.67
	4. a lot	7	23.33
	5. very much	7	23.33
		$\bar{X}$ = 3.50; *SD* = 1.11	
Sadness	1. not at all	2	6.67
	2. a little	2	6.67
	3. somewhat	3	10.00
	4. a lot	9	30.00
	5. very much	14	46.67
		$\bar{X}$ = 4.03; *SD* = 1.22	
Anger	1. not at all	4	13.33
	2. a little	4	13.33
	3. somewhat	7	23.33
	4. a lot	9	30.00
	5. very much	6	20.00
		$\bar{X}$ = 3.30; *SD* = 1.32	
	Distress – Total score	$\bar{X}$ = 3.61; *SD* = 1.10	

Note. SD = standard-deviation.

Coping strategies used and evaluation of their efficacy

The most common strategy used by adolescents to cope with hair loss was *resignation*, which all adolescents reported. *Distraction*, *cognitive restructuring,* and *problem solving* were reported by 90.00% of the sample. The least used strategy was *social isolation*, reported by 53.33% of the sample (Table 3).

As for their efficacy, *social support* was perceived as the most effective strategy, and most adolescents (91.67%) recognized it as very effective (Table 3).

Table 3

Sample distribution according to the coping strategies used and the assessment of their effectiveness (n = 30)

Strategies	Frequency of use		Perceived level of help[#]						Md	$\bar{X}$	*SD*
			0 – not at all		1 – a little		2- a lot				
	no.	%	*no.*	%	*no.*	%	*no.*	%			
1. I thought about something else; tried to forget it; and/or went and did something like watch TV or play a game to get it off my mind. DISTRACTION	27	90.00	2	7.41	2	7.41	23	85.19	2.00	1.78	0.58
2. I stayed away from people; kept my feelings to myself; and just handled the situation on my own. SOCIAL WITHDRAWAL	16	53.33	2	12.50	9	56.25	5	31.25	1.00	1.19	0.66
3. I tried to see the good side of things and/or concentrated on something good that could come out of the situation. COGNITIVE RESTRUCTURING	27	90.00	_	_	8	29.62	19	70.37	2.00	1.70	0.47
6. I thought of ways to solve the problem; talked to others to get more facts and information about the problem and/or tried to actually solve the problem. PROBLEM SOLVING	27	90.00	_	_	5	18.52	22	81.48	2.00	1.81	0.40
7a. I talked about how I was feeling; yelled, screamed, or hit something. EMOTIONAL REGULATION	19	63.33	1	5.26	6	31.58	12	63.16	2.00	1.58	0.61
7b. I tried to calm myself by talking to myself, praying, taking a walk, or just trying to relax. EMOTIONAL REGULATION	26	86.67	_	_	7	26.92	19	73.08	2.00	1.73	0.45
8. I kept thinking and wishing this had never happened; and/or that I could just change what had happened. WISHFUL THINKING	23	76.67	3	13.04	11	47.83	9	39.13	1.00	1.26	0.69
9. Turned to my family, friends, or other adults to help me feel better. SOCIAL SUPPORT	24	80.00	_	_	2	8.33	22	91.67	2.00	1.92	0.28
10. I just accepted the problem because I knew I couldn't do anything about it. RESIGNATION	30	100.0	1	3.33	5	16.67	24	80.00	2.00	1.77	0.50

Note. Md = median; *SD* = standard deviation.
[#]by the adolescents who used the strategy.

Relationship between emotional reactions and strategies used

Adolescents who reported more sadness used *wishful thinking* (p = 0.003) and *cognitive restructuring* (p = 0.009) more frequently. Those who reported high intensity of anger used *wishful thinking* (p = 0.006) more often, and those who reported higher anxiety used *social withdrawal* (p = 0.081; Table 4) more frequently.

Table 4

Analysis of the relationships between the emotional reactions of distress and the coping strategies used (n = 30)

Use of Strategies	Emotional reactions of distress													
	Anxiety				Fisher's Test	Tristeza				Fisher's Test	Raiva				Fisher's Test
	Low		High			Low		High			Low		High		
	no.	%	*no.*	%		*no.*	%	*no.*	%		*no.*	%	*no.*	%	
2-Social Withdrawal. (*n* = 16)	6	37.5	10	71.4	.081[LS]	5	71.4	11	47.8	.399	6	40.0	10	66.7	.272
3-Cognitive Restructuring (*n* = 27)	14	87.5	13	92.9	1.00	4	57.1	23	100.0	.009**	12	80.0	15	100.0	.224
8-Wishful Thinking (*n* = 23)	11	68.8	12	85.7	.399	2	28.6	21	91.3	.003*	8	53.3	15	100.0	.006**

[LS] Correlation at the threshold of significance (0.05 < *p* < 0.10).
** Significant correlation (*p* < 0.01).

Adolescents with a higher level of distress tend to use *cognitive restructuring* (*p* = 0.021), *problem solving* (*p* = 0.021), and *wishful thinking* (*p* = 0.001; Table 5) more frequently.

Table 5

Analysis of the relationships between emotional reactions and the strategies used, based on total distress (n = 30)

Use of Strategies	Total Distress				Teste Fisher
	Baixo		Alto		
	nº	%	*nº*	%	
3 – Cognitive restructuring (*n* = 27)	6	66.7	21	100.0	0.021*
6 – Problem solving (*n* = 27)	6	66.7	21	100.0	0.021*
8 – Wishful thinking (*n* = 23)	3	33.3	20	95.2	0.001**

* Significant correlation (*p* < 0.05); ** Significant correlation (*p* < 0.01).

Relationship between demographic variables and emotional reactions, strategies used, and perception of their efficacy

Gender

Most female adolescents reported high anxiety levels about hair loss, while most male adolescents reported low anxiety (*p* = 0.004). Boys use social support more frequently than girls (*p* = 0.049; Table 6).

As for the *perceived efficacy of the strategies*, most male adolescents reported a perception of high efficacy of the *problem solving* strategy (*p* = 0.030). In males, this strategy was considered very effective among the majority (94.4%) of adolescents who used it. In turn, there was a balance among girls between those who reported the high efficacy of the *problem solving* strategy (55.6%) and those who reported its low efficacy (44.4%; Table 6).

Table 6

Analysis of the relationships between gender and emotional reactions, the coping strategies used, and their perceived efficacy (n = 30)

			Gender				Fisher's Test
			Female		Male		
			no.	%	*no.*	%	
Emotional reactions of distress	Anxiety	Low	1	11.1	15	71.4	
		High	8	88.9	6	28.6	0.004**
Coping strategies used	Perceived effectiveness[#]						
6-Problem solving (*n* = 27)			9	100.0	18	85.7	0.534
	Not at all/little effective		4	44.4	1	5.6	
	A lot		\55.6	17	94.4		0.030*
	5						
9-Social support (*n* = 24)			5	55.6	19	90.5	0.049*
	Not at all/little effective		_	_	2	10.5	
	A lot		100.0	17	89.5		1.00
	5						

[#] by the adolescents who used the strategy.
* Significant correlation ($p < 0.05$); ** Significant correlation ($p < 0.01$).

Age
The age variable was dichotomized into two age groups. Significant correlations were found between this variable and anger ($p = 0.025$) and total distress ($p = 0.042$). A significant percentage of older adolescents (16-18 years) reported a high intensity of anger (76.9%), while the majority of younger adolescents (13-15 years) reported a low level of anger (70.6%). Similarly, older adolescents (16-18 years) reported a significantly higher level of total distress (92.3%) than younger adolescents (13-15 years; 47.1%; Table 7). Regarding the perceived efficacy of the strategies used, no associations were found with the adolescents' age.

Table 7

Analysis of the relationships between age and emotional reactions, coping strategies used, and their perceived efficacy (n = 30)

			Age				Fisher's Test
			13-15 years		16-18 years		
			no.	%	*no.*	%	
Emotional reactions of distress	Anger		12	70.6	3	23.1	
		High	5	29.4	10	76.9	.025*
Total distress			8	47.1	1	7.7	
		High	9	52.9	12	92.3	.042*
Coping strategies used	Perceived efficacy[#]						
8-Wishful thinking (n = 23)			10	58.8	13	100.0	.010*
		Not at all/Little effective	8	80.0	6	46.2	
		A lot					.197
			2	20.0	7	53.8	

[#] By the adolescents who used the strategy.
Significant correlation at $p < .05$.

Relationship between the type of hair loss and emotional reactions, the strategies used, and their perceived efficacy

The type of hair loss (slow/fast; partial/total) was not relevant to the adolescents' reactions or to the coping strategies and their perceived efficacy.

Discussion

The results show that most adolescents with cancer subjectively evaluated hair loss as a *large/emergency* problem. This experience is associated with strong emotional reactions, namely sadness/crying and fear/irritability.

Thus, the results are in line with studies that consider chemotherapy-induced hair loss a tormented experience often reported as the worst part of treatment, causing more anxiety and anguish (Young & Arif, 2016).

The most frequently used coping strategies are resignation, distraction, cognitive restructuring, and problem solving. It seems that adolescents make an effort to regulate their emotional response to hair loss using emotion-focused coping strategies, although they also look for problem-focused alternatives, including searching for information. In a study by Trask et al. (2003), as cited in Decker (2008), adolescents who used more emotion-focused coping strategies, specifically cognitive restructuring, had lower distress levels, although problem-focused strategies were not significantly associated with higher distress levels. Sorgen and Manne (2002) found a correlation between the type of coping and perceptions of controllability. In situations where perceived controllability of the problem is lower, the adoption of emotion-focused strategies is associated with lower distress, depression, anger, and anxiety.

However, problem solving was reported by these adolescents who tend not only to seek information but also to make an effort to eliminate/limit stress factors related to hair loss, namely through the use of scarves, hats, and caps, with the use of wig, perfume, and beautiful clothing being less common. These efforts are extremely important as they allow adolescents to reduce the stress caused by changes in appearance (Burg, 2016; Hockenberry & Wilson, 2016; Lee et al., 2012; Williamson et al., 2010; Young & Arif, 2016).

As for the strategies' perceived efficacy, the results indicate that the adolescents reported social support, distraction, and problem solving as the most effective strategies.

This evidence is consistent with other studies on this field, namely on the importance of social support (emotional, material, and information), the return to normal life as soon as possible (Kyngas et al., 2001, as cited in Decker, 2008), the importance of positive thinking, not thinking about treatment, keeping busy, the reinterpretation of the gains from the cancer experience, and a philosophical stance (Weekes & Kagan, 1994, as cited in Decker, 2008).

However, the results suggest that resignation (the most commonly used strategy by all adolescents in this study) is not perceived and reported as the most effective strategy. Social isolation and wishful thinking were the strategies perceived by adolescents as less effective.

Relationship between emotional reactions and strategies used

The significant associations between the emotional reactions of anxiety, sadness, and anger and the coping strategies of wishful thinking, cognitive restructuring, social isolation, and problem solving stand out.

An association was found between sadness and wishful thinking and cognitive restructuring because adolescents who exhibited greater sadness used both of these strategies more frequently.

Another significant association was found between anger and wishful thinking. However, adolescents reported that this coping strategy was the least effective of them all. Wishful thinking should be considered an emergency resource strategy for emotional regulation, but one that proves to be ineffective over time.

Relationship between demographic variables (gender and age) and emotional reactions, strategies used, and their perceived efficacy

Most female adolescents showed high anxiety levels, while most males revealed low anxiety.

In the situation of hair loss, boys used social support more frequently than girls. Girls used social isolation more often, although the association was not statistically significant.

Among girls, there was a predominance of adolescents with more anxiety, and the association between anxiety and social isolation stands out, as seen previously and consistently.

Boys have mostly considered problem solving to be a very effective strategy, while this notion of efficacy is not so common among girls. This difference may be associated with the greater sense of control among boys, translating into less anxiety.

Regarding age, in general, distress is higher among adolescents aged 16-18 years. All older adolescents reported wishful thinking as the resource strategy. Apart from this strategy, but considering others that require abstract thinking, Brown et al. (1992), as cited in Decker (2008), found that the use of distraction, cognitive restructuring, emotional regulation, social support, and resignation increase with age.

One of the main limitations of this study is the lack of prior data collection instruments to address all the research questions. Likewise, the small sample size requires careful interpretation and prudent generalization of the results.

Conclusion

The results show that strong and out-of-control emotions, which seem to be the most predominant ones, lead to more emotion-focused coping strategies, and that it is important to value the different ways adolescents cope with the problem and understand that the most appropriate coping strategy is one that allows the individual to adapt effectively, regardless of using problem- or emotion-focused strategies. In this study, social isolation was the least used strategy and perceived as the least effective. Thus, it is understandable that the high intensity of anxiety and consequent emotional dysregulation lead to the use of

little effective strategies, making it essential for nursing to intervene in this context to facilitate an effective adaptive process and reduce suffering.

Regarding the implications for nursing practice, it is necessary to provide adequate information regarding these needs, answering adolescents' questions and doubts and informing adolescents and their parents that hair loss will occur, highlighting that it is a temporary process, and hair will grow again (and may grow different and more beautiful). It is also essential to plan a targeted intervention and implement effective coping strategies taking into account that girls require an intervention to control anxiety and that older adolescents (16-18 years) require an intentional intervention to minimize anger and total distress. Professionals, especially nurses, should identify situations of ineffective adaptation as early as possible to ensure an adequate referral of these situations, without delaying a specialized intervention.

Author contributions

Conceptualization: Oliveira, C.
Methodology: Gameiro, M.
Data curation: Oliveira, C., Gameiro, M.
Writing – original draft: Oliveira, C..
Writing – review & editing: Oliveira, C., Gameiro, M.
Supervisão: Gameiro, M.

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