

Differences in resilience, coping, and well-being between parents of short-term hospitalized children and parents of healthy children

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Abstract

The hospitalization of children has been considered as a very stressful event that negatively affects the parental subjective and psychological well-being connected to resilient resources and adaptive coping strategies. The aim of this study was to examine the differences in resilience, coping strategies, and well-being between a selected group of parents of short-term hospitalized children and parents of healthy children, and to analyze the correlations among these psychological dimensions in parents of hospitalized children. Parents were asked to complete the Resilience Scale, the CISS, and the PWBs. Results demonstrated that both parents of short-term hospitalized children and those of healthy children showed comparable levels of resilience and of psychological well-being, and adopted the same strategies mainly focused on task-oriented coping. In addition, the more the parents of hospitalized children were resilient, the more they used the task-oriented coping and considered themselves as able to be autonomous, to manage their own environment, to reach the established goals, and to cultivate a positive self-image; moreover, the more these parents used task-oriented coping, the more they felt themselves highly autonomous, able to manage

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easily their own environment, and to develop a positive self-representation in relation to their children care. These findings probably depend on both the severity of illness – considered as temporary diseases or transient state of illness rather than as chronic disease – and the short-term hospitalization. Future research is needed to deepen the different impact of long-term versus short-term hospitalization and the effects of children's illness severity on parental well-being.

Keywords: Resilience; Coping; Well-being of parents; Hospitalized children.

1. Introduction

The hospitalization of children is often considered as a stressful situation that can threaten the quality of life of families, based on psychological well-being, coping strategies, and parental resilience (Rosenberg, Wolfe, Bradford, Shaffer, Yi-Frazier, Curtis *et al.*, 2014; Ye, Guan, Wu, Xiao, Luo, & Quan, 2015; Starczewska, Waldoch, Reczynska, Augustyniuk, Stanislawska, & Grochans, 2017; Edraki & Rambod, 2018), especially when the hospitalization is caused by chronic illness as cancer or leukemia (Grootenhuis & Last, 1997; Cohen, 1999; Goldbeck, 2001; Lou, 2006; Han, Cho, Kim, & Kim, 2009; Phipps, Long, Willard, Okado, Hudson, Huang, *et al.*, 2015; Mahmoud & Abd Elaziz, 2015; Lakkis, Khoury, Mahmassani, Ramia, & Hamadeh, 2016). Some studies demonstrated that parents of children with cancer reported greater resilient resources in terms of psychological growth (or post-traumatic growth) following adverse or traumatic events than those of children hospitalized for diabetes or other diseases (Hungerbuehler, Vollrath, & Landolt, 2011; Phipps *et al.*, 2015); others reported critical levels of resilience and mixed coping strategies with dissimilarities within couples (Svavarsdottir, McCubbin, & Kane, 2000; Goldbeck, 2001). Little is known about the effects of this traumatic event (i.e. child hospitalization) on parental well-being, resilient resources, and coping in relation to the short-term hospitalization for asthma or other diseases (Dellve, Reichenberg, & Hallberg, 2000; Brazil & Krueger, 2002; Trollvik & Severinsson, 2004; Montilla-Pérez, Zafra Anta, & Palacios-Ceña, 2018). For example, using a qualitative approach, Dellve and colleagues (2000) found that “problem-solving”, “avoiding-assuring”, “reducing”, “relying on self”, “complying”, and “enduring” were the six coping strategies mainly adopted by parents of children with asthma; according to the authors, the core concept was identified as “chaos in caring” in terms of the experienced stress in caring for the child’s asthma, directly linked to daily experiences of “lack of control”, “incompetence in caring”, “disease-focusing”, “existential fear”, “closeness”, and “uncertainty due to a non-understanding environment”, all expressed by parents. Furthermore, Brazil and Krueger (2002) examined coping skills in parents of children with asthma, indicating that mothers were more active than fathers in gaining support from family and friends and were more likely to cope by maintaining self-esteem, social relationships, and psychological stability. In addition, Trollvik and Severinsson (2004) underlined the presence of feelings of uncertainty, helplessness and guilt, the need for support and help

from healthcare professionals, the adaptation to everyday life, and the development of positive coping strategies (such as the “trying out” and “seeking information” coping to learn to adequately manage the children’s asthma) reported by parents of children with asthma. With reference to the children’s hospitalization for bronchiolitis, using the focus groups, Montilla-Pérez and colleagues (2018) described that parents perceived the fragility of the hospitalized children through their appearance and physical state, used different coping strategies to seek and confirm information, approached professionals and were present with their children during the entire period of hospitalization. So, we believe that quantitative investigation about the three constructs of our interest appear to be almost non-existent or scarcely reported into scientific literature.

1.1. Psychological well-being of parents of hospitalized children

The theoretical framework chosen for the understanding of the multiple aspects affecting the psychological well-being of parents of hospitalized children is represented by the Ryff and Singer’s perspective (1996) with the following six dimensions: 1) *self-acceptance*, 2) *sense of autonomy*, 3) *positive relations with others*, 4) *personal growth*, 5) *purpose in life*, and 6) *environmental mastery*. In detail, the dimension of self-acceptance is defined as “self-actualization” and “optimal functioning” of individuals in their own life context. The sense of autonomy is referred mainly to the traits of “self-determination”, “independence”, and “behavioral regulation”. The care for positive relations with other individuals is the ability to express feelings of empathy for all human beings and to be able of greater love, deeper friendship, and identification with the others. The dimension of personal growth is related to a generally optimal psychological functioning that requires not only to realize one’s potentialities, but also to continue to “develop and expand oneself as a person”. The purpose in life is conceptualized as a sense of “directedness and intentionality in changing goals in life”, such as being productive and creative or achieving emotional integration in later life. Lastly, the dimension of environmental mastery is considered as the ability to create “environments accessible to individual’s needs” (Ryff & Singer, 1996; Sagone, 2017).

This model has been applied to measure the psychological well-being in parents of children with intellectual disability (Boromand, Narimani, & Mosazadeh, 2014), parents of sick newborns (Barr, 2016), parents of children with thalassemia (Anum & Dasti, 2016), parents of children with

leukemia (Mahmoud & Abd Elaziz, 2015), mothers of children with cancer (Damreihani, Behzadipour, Haghpanh, & Bordbar, 2018), and mothers of preterm infants (Van Riper, 2001). The dimensions included into the Ryff's model (1996) have positive effects on reduction of stress and help in adopting of positive strategies to cope with the event of hospitalization. If parental well-being is at-risk, coping strategies mainly used by parents of hospitalized children are dysfunctional and maladaptive both for parents and their children (Grootenhuis & Last, 1997; Goldbeck, 2001). As indicated by Goldbeck (2001), parents of hospitalized children for cancer reported more rumination, defense coping and information seeking coping, compared with those of the control group; moreover, parents of hospitalized children for cancer developed less social support seeking and had more difficulties in maintaining personal stability than those of the control group.

1.2. Coping strategies in parents of hospitalized children

Considering the cited evidences, we noted that parents of hospitalized children who tended to use the emotion-focused strategies were less satisfied with their life and reported higher levels of couple dissatisfaction, than those who were more likely to adopt the problem-focused coping or task-oriented strategies (Salisbury, LaMontagne, Hepworth, & Cohen, 2007; Kumari, Gupta, Piplani, Bhatia, & Upadhayay, 2011; Gheibizadeh, Gholami, Bassaknejad, & Cheraghian, 2017), even if the use of coping strategies is often influenced by types of stressors classified by parents as loss of parenting role, uncertainty over outcomes, and information need (LaMontagne & Pawlak, 1990). As reported by LaMontagne and Pawlak (1990), parents of hospitalized children used a combination of both problem- and emotion-focused coping strategies, in the sense that seeking social support and positive reappraisal coping were the two most often used strategies by parents regardless of the classification of stressors. Moreover, parents of children hospitalized for spinal surgery used more emotion-focused coping than problem-focused one both at preoperative and postoperative admission (LaMontagne, Hepworth, Salisbury, & Riley, 2003). As found by Garro (2011) with Latino parents of children with asthma, strategies focused on family life, maintainment of an optimistic perspective as well as strategies related to the understanding of the child's medical situation are frequently used to cope with pediatric health problems. About the complexity of these results, it is possible to recall the literature review proposed by Grootenhuis and Last (1997): the authors underlined the

difficulties in generalizing empirical findings due to the heterogeneous group of children with cancer, the differences between mothers and fathers' points of view, the difficulties due to illness-specific diseases, and the diversity in the various measures and procedures adopted to assess coping and other psychological constructs. All these factors made the findings in this field of research very incomparable.

The different types of coping strategies chosen as framework of the current study were analyzed using the Endler and Parker's model (1990). The *task-oriented coping strategy* is the way of taking active steps to circumvent the stressor, using past experience and collecting more information to solve the problem; the *emotion-focused coping strategy* is referred to any effort that reduces the degree of emotional distress induced by the stressful situation and consisting of obsession, fantasy, anger, crying, feeling loneliness, and depression; moreover, the *avoidance coping* is the action of denying the presence of the stress, seeking social support or turning to social entertainment as *distraction* or *social diversion*. Coping strategies are not adaptive or maladaptive in itself, seeing as their "adaptivity" has to be determined by their outcomes and by the best fit to the demands of situational and personal factors (Goldbeck, 2001); so, in general, task- or problem-oriented coping strategies are positively related to adaptation and good health, whereas emotion-oriented coping strategies are negatively related to the same dimensions (Endler & Parker, 1994). Considering the hospitalization of children as a stressful event putting to the test parental resources, we considered emotion-focused coping and avoidance coping as maladaptive strategies, while task-oriented coping as adaptive strategy.

1.3. Resilient resources of parents of hospitalized children

Parental resources to overcome the difficulties linked to the hospitalization of children and to guarantee a good quality of life and high psychological well-being are linked to the abilities of parents to perceive themselves as highly able to bounce back from adversities adopting positive coping strategies (Masten, Hubbard, Gest, Tellegen, Garmezy, & Ramirez, 1999) and to restore from stressful events or maintain equilibrium under significant threats (Smith, Dalen, Wiggins, Tooley, Christopher, & Bernard, 2008; Rossman, Greene, Kratovil, & Meier, 2017). These two abilities are included into a set of dispositional traits known as "resilient resources". Resilient parents tended to adopt an optimist orientation, showed a good

degree of self-efficacy to cope with child hospitalization, reached an higher psychological well-being, and were more satisfied with their lives compared to non-resilient ones (LaMontagne, Hepworth, Johnson, & Desphande, 1994; Svavarsdottir *et al.*, 2000; Board & Ryan-Wenger, 2002; LaMontagne *et al.*, 2003; Landolt, Vollrath, Ribl, Gnehm, & Sennhauser, 2003; Commodari, 2010; Kumari *et al.*, 2011; Gopal & Rai, 2016; Edraki & Rambod, 2018). As indicated by Svavarsdottir and colleagues (2000), resiliency factors and family demands were directly associated to well-being of parents of young children with asthma. Rossman and colleagues (2017) found that mothers of very-low-birth-weight infants (VLBW < 1,500 gr) recovered in the Neonatal Intensive Care Unit (NICU) developed resilience and strength of purpose “by becoming advocates for their infants and by doing whatever they could to promote the infants’ health” (p. 440); so, mothers coped with “the uncertainties and lack of control associated with having a VLBW infant hospitalized in the NICU by modifying the adverse effects of the preterm birth and the intensive care environment and by tolerating significant stress” (p. 440). Mothers sought and used available resources with peer support that actively promoted their own mental health, including staying in the present moment, prayer/spirituality, seeking information, and open communication as resilient resources (Rossman, Greene, & Meier, 2015). Moreover, Edraki and Rambod (2018) found that parents whose children and adolescents with diabetes had fewer admissions in the hospital reported higher resilience and were more satisfied with their lives than the others.

A lot of research has been carried out on stress, emotional exhaustion, and well-being of parents of children hospitalized for a long time and suffering from chronic diseases (Tiedeman, 1997; Wijnberg-Williams, Kamps, Klip, & Hoekstra-Weebers, 2006; Norberg, 2007; Lindström, Åman, & Norberg, 2009; Wray, Lee, Dearmun, & Franck, 2011; De Caroli & Sagone, 2014). For example, Tiedeman (1997) analyzed the levels of anxiety in a sample of parents during and after the hospitalization of their children for asthma, pneumonia, bronchitis, gastroenteritis, and appendicitis, and examined the relationships existing between parental anxiety and children’s levels of anxiety, age, gender, length of hospitalization, and previous experiences at hospital. Results demonstrated that parents (predominantly mothers) reduced their levels of anxiety from admission to discharge, but not from discharge to post-hospitalization, with significant differences in relation to the length of children’s hospitalization period.

There are not so many studies focused on the impact of short-term (generally, from day-hospital to two weeks) hospitalization and of transitory pathologies on well-being, coping strategies, and resilient resources of parents (Seideman, Watson, Corff, Odle, Haase, & Bowerman, 1997; Wray *et al.*, 2011; Krywda-Rybska, Zdun-Ryzewska, & Zach, 2012). For example, Seideman and colleagues (1997) compared perceptions of stress and coping experiences of parents with children hospitalized in Pediatric Intensive Care Units (PICU) and Neonatal Intensive Care Units (NICU), finding that parents of children in the PICU perceived more helpful problems-focused coping than those of children in the NICU; on the contrary, parents of children in the NICU found emotion-focused coping more supportive than those of children in the PICU. Lastly, these parents in both units considered the problem-focused coping more useful than the appraisal- or emotion-focused coping. Recently, Krywda-Rybska and colleagues (2012) analyzed the ways of coping, stress levels, generalized self-efficacy, and optimism in a group of parents of hospitalized children for an average of 7 days, discovering positive correlations between levels of parental stress and seeking for social companionship, avoidance, suppressing depression, and emotion-focused coping strategies, and negative correlations between levels of parental stress and self-efficacy. These authors concluded that the more the parents perceived themselves as self-efficient, the more they reduced levels of stress; furthermore, the more the parents reported high levels of stress, the more they tended to adopt maladaptive coping strategies, mainly focused on emotions. Furthermore, also Wray and colleagues (2011) explored psychological functioning of parents with children hospitalized for at least 3 days in two periods (short-term hospitalization), respectively at discharge and three months after the discharge from the hospital; the authors found that parents with high levels of anxiety mostly used the self-blame coping style, reported low scores of optimism and high levels of perceived illness-related uncertainty, also in relation to the frequency of hospital stays.

Considering the paucity of researches on children's short-term hospitalization, the main purpose of this current study is to examine the differences in psychological well-being, coping strategies, and resilience between parents of short-term hospitalized children and parents of healthy children without any experience of chronic or serious diseases. Owing up the importance of the meaning attributed by parents to the stressful event for the hospitalization of their children, we expected that:

- parents of hospitalized children will report lower levels of resilience than those with healthy children (H_1), as reported by Rosenberg and

colleagues (2014), Ye and colleagues (2015), and Edraki and Rambod (2018) in relation to other diseases;

- parents of hospitalized children will be more likely to adopt dysfunctional coping strategies than those with healthy children (H_2), as found by Goldbeck (2001), LaMontagne and colleagues (2003), and Krywda-Rybska and colleagues (2012) for other diseases;
- parents of hospitalized children will express lower psychological well-being than those with healthy children (H_3), as discussed in Boromand and colleagues (2014) and Damreihani and colleagues (2018) for other diseases.

In order to deepen the analysis of relationships among the chosen psychological aspects only in the group of parents with hospitalized children, we hypothesized that: the more the parents of hospitalized children will be resilient, the more they will be likely to make use of positive coping strategies or functional to adaptation toward stressful circumstances (H_4); moreover, the more the parents of hospitalized children will be resilient, the more they will report high psychological well-being (H_5); finally, the more the parents of hospitalized children will be likely to make use of positive coping strategies, the more they scored highly on dimensions of psychological well-being (H_6). In addition, it will be noteworthy to test the associations of resilience and coping strategies with psychological well-being in parents of hospitalized children (H_7).

2. Method

2.1. Participants

The sample consisted of 211 Sicilian married parents aged 19-to-61 years ($M_{age} = 35.8$, $SD = 7.7$) divided into two groups: 117 parents (89 mothers and 28 fathers) with hospitalized children in PICU ($M_{age} = 4.5$, $SD = 2.3$) and 94 parents (76 mothers and 18 fathers) with healthy children ($M_{age} = 5.2$, $SD = 3.6$). In both groups, the majority of mothers were housewives (71 of 89 with hospitalized children and 60 of 76 with healthy children) while most of fathers were public or private employees (23 of 28 with hospitalized children and 13 of 18 with healthy children). Parents of hospitalized children were recruited by Pediatric Departments of two Public Hospitals based in Catania (Sicily), whereas parents of healthy children from two Public Nursery Schools in the same city. For this last group, we asked parents to

inform us about the experiences of hospitalization of their children: so, we included only the parents of children without any previous experience of hospitalization for long or short period. The hospitalization was ranged from five days to two weeks, mainly for respiratory diseases, gastrointestinal pathologies, allergic reactions, and other transitory pathologies. All relevant details of the study were provided by researchers and parents were asked to give their informed consent in accordance with article 13 of the Italian Legislative Decree 196/2003 (Code regulating personal data protection). Researchers followed the Ethical Code for Italian psychologists (L. 18.02.1989, n. 56), the Ethical Code for Psychological Research (reviewed in March 27, 2015) by Italian Psychologists Association, and DL for data privacy (DLGS 196/2003).

2.2. Measures

A self-report questionnaire was used to explore the main topics of this study, including the 10-item version of Resilience Scale (RS, Wagnild & Young, 1993; Wagnild, 2009), the 18-item version of Psychological Well-being Scales (PWBs, Ryff & Keyes, 1995; Zani & Cicognani, 1999), and the Adult-Version of Coping Inventory for Stressful Situations (CISS, Endler & Parker, 1990; Sirigatti & Stefanile, 2009). These scales were individually administered in anonymous form by two expert researchers.

The RS is made of 10 items each of which was valuable on a 7-point Likert scale ($\alpha = .83$) ranging from 1 (strongly disagree) to 7 intervals (strongly agree). This scale measures the ability to overcome adversities of unfamiliar events (e.g. "I have enough energy to do what I have to do", "I seldom wonder what is the point of it all"). According to the sum of responses for all items, high scores indicate high degree of resilience.

The PWBs consists of a set of items for each of which parents have to evaluate themselves on a 6-point Likert scale, ranging from 1 equal to strongly disagree to 6 equal to strongly agree (α for total scale = .72). The shortened Italian version of the PWBs with 18 items grouped in six subscales was applied: 1) *autonomy* (e.g. "I have confidence in my opinions, even if contrary to the general consensus"), 2) *environmental mastery* (e.g. "In general, I feel I am in charge of the situation in which I live"), 3) *purpose in life* (e.g. "Some people wander aimlessly through life, but I am not one of them"), 4) *positive relations with others* (e.g. "People would describe me as a giving person, willing to share my time with others"), 5) *personal growth* (e.g. "I think it is important to have new experiences that

challenge how you think about yourself and the world”), and 6) *self-acceptance* (e.g. “I like most aspects of my personality”). As procedure of coding system, responses are totaled for each of the six subscales (about half of the responses are reverse scored) and, for each subscale, high scores indicate that parents have a mastery of that area in their life, whereas low scores show that parents negatively perceive themselves in a particular area.

The CISS for Adults is a measure of the extent in which parents adopt a series of behaviors in order to cope with stressful and difficult situations. It comprises 48 sentences, each corresponding to the coping strategies examined in the Endler and Parker’s coping model and valued by parents using the following response choices (scored from 1 to 5 points): always = 5, often = 4, usually = 3, sometimes = 2, and never = 1. These sentences are grouped in the subsequent three scales (according the Italian version adapted by Sirigatti and Stefanile, 2009): 1) *task-oriented coping strategy* ($\alpha = .84$), 2), *emotion-oriented coping strategy* ($\alpha = .91$), and 3) *avoidance strategy* ($\alpha = .86$); additionally, *distraction* ($\alpha = .83$) and *social diversion* ($\alpha = .82$). Specifically, task-oriented coping is referred to strategies used by an individual to directly manage or resolve the stressful situation (e.g. “Get control of the situation”, “Focus on the problem and see how I can solve it”). Emotion-oriented coping is referred to coping reactions that include self-absorption, emotional distress, self-depreciation, and daydreaming (e.g. “Blame myself for not knowing what to do”, “Focus on my general inadequacies”). Avoidance coping involves strategies to avoid the stressful situation altogether and it is further broken down into two subscales: distraction (i.e. diverting attention from the problem by turning to other activities: e.g. “Go for a walk”) and social diversion (i.e. diverting attention from the problem by becoming involved with other people: e.g. “Try to be with other people”). In our study, we converted participants’ scores to T points using the normal population tables by gender and age (according to the indications provided by Italian Manual version).

2.3. Statistical analysis

The statistical analysis of data was carried out by means of the IBM SPSS 20, using Student’s *t*, Pearson’s linear correlations, and regression analyses (only for the group of parents of hospitalized children). Student’s *t* was used to evaluate differences between the two groups of parents in relation to resilience, coping strategies, and dimensions of psychological well-being. Pearson’s linear correlations analyzed the relationships between

coping strategies and psychological well-being, between resilience and psychological well-being, and between resilience and coping strategies. Finally, regression analyses tested the associations of resilience and coping strategies with psychological well-being in parents of hospitalized children. Group of parents (with hospitalized children and with healthy children) was used as independent variable, while mean scores obtained on resilience, each dimension of psychological well-being, and coping strategies were used as dependent variables.

3. Results

With reference to resilience mean scores, the analysis of data revealed the absence of significant differences ($t_{(209)} = -.485, p > .05$) between parents of hospitalized children ($M = 56.67, SD = 7.61$) and those of healthy children ($M = 56.13, SD = 8.50$) showing in both groups average to high levels of resilience respect to reference scores in non-clinical adults. Comparing the dimensions of psychological well-being obtained by the two analyzed groups (see Tab. 1), results indicated that parents of healthy children and those of hospitalized children similarly scored on each dimension, disconfirming the hypotheses: for autonomy, $t_{(209)} = -.433, p > .05$; for environmental mastery, $t_{(209)} = .554, p > .05$; for personal growth, $t_{(209)} = -.053, p > .05$; for relations with others, $t_{(209)} = 1.148, p > .05$; for purpose in life, $t_{(209)} = 1.529, p > .05$; for self-acceptance, $t_{(209)} = .121, p > .05$.

Table 1 - *Differences in psychological well-being's dimensions between parents of hospitalized children and parents of healthy children*

Measures - PWBs	Group of parents	<i>M</i>	<i>SD</i>
Autonomy	0	13.77	2.52
	1	13.93	2.62
Environmental mastery	0	13.00	2.10
	1	12.82	2.32
Personal growth	0	14.35	2.36
	1	14.36	2.15
Positive relations with others	0	13.96	2.70
	1	13.51	2.98
Purpose in life	0	12.13	2.74
	1	11.55	2.76
Self-acceptance	0	13.03	2.70
	1	12.98	3.08

Note: Group of parents with hospitalized children (label = 1) and with healthy children (label = 0). None of the group differences reached statistical significance ($p > .05$)

Evaluating the scores reached by the two groups in relation to coping strategies (see Tab. 2), results indicated the absence of differences on each strategy between parents of healthy children and those of hospitalized children. Moreover, it emerged that both groups of parents scored higher in the task-oriented coping than the two other types of strategies: for task-oriented coping, $t_{(209)} = -1.478, p > .05$; for emotion-focused coping, $t_{(209)} = -1.732, p > .05$; for avoidance, $t_{(209)} = .727, p > .05$; for distraction, $t_{(209)} = 1.105, p > .05$; for social diversion, $t_{(209)} = -.212, p > .05$.

Table 2 - *Differences in coping strategies between parents of hospitalized children and parents of healthy children*

Measures – CISS	Group of parents	<i>M</i>	<i>SD</i>
Task-oriented coping	0	60.38	8.38
	1	62.12	8.56
Emotion-focused coping	0	41.03	12.68
	1	44.14	13.14
Avoidance	0	46.40	11.08
	1	45.25	11.78
Distraction	0	21.06	7.03
	1	19.99	6.98
Social diversion	0	16.78	3.94
	1	16.90	4.75

Note: Group of parents with hospitalized children (label = 1) and with healthy children (label = 0). None of the group differences reached statistical significance ($p > .05$)

Proceeding to the analysis of Pearson's linear correlations between resilience and coping strategies, results revealed that resilience was positively correlated with task-oriented coping ($r = .43, p < .001$) and negatively with emotion coping strategy ($r = -.23, p = .012$). It meant that the more the parents of hospitalized children were resilient, the more they adopted the task-oriented coping strategy and the less they used the emotion-focused coping. Realizing the analysis of linear correlations between resilience and psychological well-being, results indicated that resilience was positively correlated with autonomy ($r = .47, p < .001$), environmental mastery ($r = .52, p < .001$), personal growth ($r = .37, p < .001$), and self-acceptance ($r = .44, p < .001$). These data indicated that the more the parents of hospitalized children were resilient, the more they reached high autonomy, mastery, growth, and self-acceptance. The last analysis of linear correlations between psychological well-being and coping strategies (see Tab. 3) demonstrated the following results.

- Autonomy was negatively correlated with emotion-focused ($r = -.30, p = .001$), distraction ($r = -.22, p = .019$), and avoidance coping ($r = -$

- .21, $p = .027$), and positively with task-oriented coping ($r = .34$, $p < .001$); the more the parents of hospitalized children expressed high levels of autonomy, the less they adopted emotion-focused, distraction, and avoidance coping strategies, in favor of the task-oriented one.
- Environmental mastery was negatively correlated with emotion-focused ($r = .30$, $p = .001$) and positively with task-oriented coping ($r = .36$, $p < .001$); the more the parents of hospitalized children reported high levels of mastery, the less they adopted emotion-focused coping strategy, in favor of the task-oriented one.
 - Personal growth was negatively correlated with emotion-focused ($r = -.37$, $p < .001$), distraction ($r = -.28$, $p = .003$), and avoidance coping ($r = -.21$, $p = .022$); the more the parents of hospitalized children expressed high sense of growth at personal level, the less they used emotion-focused, distraction, and avoidance coping strategies.
 - Positive relations with the others were negatively correlated both with emotion-focused ($r = -.24$, $p = .010$) and distraction coping ($r = -.21$, $p = .021$); the more the parents of hospitalized children had good relationships with the others, the less they used emotion-focused and distraction coping strategies.
 - Purpose in life was negatively correlated with distraction coping ($r = -.23$, $p = .012$); the more the parents of hospitalized children expressed high purpose in their life, the less they utilized the distraction coping strategy.
 - Finally, self-acceptance was negatively correlated with emotion-focused ($r = -.35$, $p < .001$) and positively with task-oriented coping ($r = .20$, $p = .033$); the more the parents of hospitalized children showed a positive acceptance of themselves, the more they used the task-oriented strategy.

Table 3 - *Correlations between PWBs and CISS for parents of hospitalized children*

PWBs and CISS	Task-oriented	Emotion-focus	Avoidance	Distraction	Social diversion
Autonomy	.34*	-.30*	-.21**	-.22**	-.14
Environmental mastery	.36*	-.30*	-.05	-.10	.09
Personal growth	.18	-.37*	-.21**	-.28**	-.03
Positive relations with others	.06	-.24**	-.14	-.21**	.03
Purpose in life	.07	-.15	-.13	-.23**	.11
Self-acceptance	.20**	-.35*	-.05	-.09	.04

Note: All correlations were significant for * $p < .001$ and ** $p < .05$

The deepening about the associations of resilience and coping strategies with psychological well-being only in the group of parents of hospitalized children was carried out by means of linear regressions, revealing that: resilience and task-oriented coping strategy had positive effects on autonomy (respectively, $\beta = .347, t = 3.892, p < .001$ and $\beta = .199, t = 2.253, p = .026$; model $R = .575, R^2 = .331, F = 9.059, p < .001$), while distraction negative effects ($\beta = -.836, t = -2.107, p = .037$); resilience and social diversion produced positive effects on environmental mastery (respectively, $\beta = .418, t = 4.845, p < .001$ and $\beta = .546, t = 2.076, p = .040$; model $R = .611, R^2 = .373, F = 10.912, p < .001$); resilience produced positive effects while emotion-focused coping strategy negative effects on personal growth (respectively, $\beta = .293, t = 3.139, p = .002$ and $\beta = -.259, t = -2.577, p = .011$; model $R = .515, R^2 = .266, F = 6.634, p < .001$); finally, resilience had positive effects while emotion-focused coping strategy produced negative effects on self-acceptance (respectively, $\beta = .373, t = 4.011, p < .001$ and $\beta = -.307, t = -3.077, p = .003$; model $R = .521, R^2 = .272, F = 6.847, p < .001$).

4. Discussion

In contrast with initial expectations and findings of other authors (Kumari *et al.*, 2011; Gopal & Rai, 2016; Gheibizadeh *et al.*, 2017), this study demonstrated that parents of hospitalized children and those of healthy children showed comparable levels of resilience (H_1), tended to adopt the same coping strategies (H_2), and reported same degree of psychological well-being on the six dimensions (H_3). These evidences could be partially considered in line with the suggestions emerged by the recent study carried out by Sicouri and colleagues with eighty-nine Australian parent-child dyads and using two direct observational tasks (the Tangram task and the Five Minute Speech Task); their results showed that involvement and negativity's parenting style not differ between parents of children with asthma and those of healthy children, even if parents of children with asthma and anxiety are more overprotective/self-sacrificing/non-objective than the others (Sicouri, Sharpe, Hudson, Dudeney, Jaffe, Selvadurai *et al.* 2017). Despite these previous indications, our findings remain in contrast with the results obtained by Kumari and colleagues (2011), according to which Indian parents of children with bronchial asthma used more maladaptive coping strategies than control group. Likewise, Gopal and Rai (2016) highlighted that Indian parents of children with bronchial asthma scored higher levels of

stress and obtained lower scores on dimensions of quality of life than control group.

With reference to the last hypotheses regarding to the relationships among resilience, coping strategies, and dimensions of psychological well-being, expressed by parents of hospitalized children, our results showed that the more the parents of hospitalized children were resilient the more they used the task-oriented coping strategy (H₄) and considered themselves as autonomous, able to manage their own environment, to reach the established goals, and to develop a positive image of themselves (H₅). Furthermore, results corroborated the hypothesis according to which the more the parents of hospitalized children were likely to make use of task-oriented coping, the more they felt themselves as highly autonomous, able to manage easily their own environment, and to develop a positive self-representation in relation to the care of their children; on the contrary, the more these parents were likely to make use of emotion-focused coping strategies, the less they felt themselves able to have positive relations with the others, to control their environment, and to accept themselves (H₆). These findings are in line with LaMontagne, Hepworth, Pawlak and Chiafery's study (1992) about parental coping and activities of care for their children, discovering that more self-directed and less anxious parents tend to use coping strategies focusing on problem solving rather than on their emotional response to a child's hospitalization in pediatric care centre; furthermore, parents who used the problem-focused coping strategies were more likely to be involved in caring for their child, while parents who used emotion-focused coping modes participated less in care activities.

The obtained results confirmed the hypothesis according to which resilient resources and adaptive coping strategies produce positive effects on psychological well-being of parents of hospitalized children, specifically on autonomy, environmental mastery, personal growth, and self-acceptance (H₇). So, highly resilient parents who use task-oriented coping strategies are in a condition of well-being more than those with low resilience and maladaptive strategies to cope with the hospitalization of their children.

The current findings are different from previously studies cited in the introduction and these differences could be explained with the main variables chosen by researchers in this investigation (i.e. causes and length of hospitalization). Pediatric hospitalization mainly caused by respiratory diseases (i.e. asthma, otitis, tonsillitis, and bronchiolitis), gastrointestinal pathologies, allergic reactions (i.e. eczema, skin allergies or allergic contact dermatitis), and other transitory pathologies affects parental well-being and

resilient resources differently from that caused by more severe diagnoses as leukemia, cerebral palsy, or cancer treatment. In the case of these last pediatric pathologies, the periods of permanence at hospital would be longer than those actually considered by researchers in this investigation. Severe illness need longer hospitalization than in the case of transitory pathologies and test the parental coping abilities with this event (Cheshire, Barlow, & Powell, 2010). The seriousness of illness with consequent length of long (several months or years) or short hospitalization (from day hospital to two weeks) has different effects on the levels of stress and the adoption of strategies to cope with the recovery period of children (Jurbergs, Long, Ticona, & Phipps, 2009; De Caroli & Sagone, 2014; Toffalini, Veltri, & Cornoldi, 2015; Stremmer, Haddad, Pullenayegum, & Parshuram, 2017). More recently, Foster, Mitchell, Young, Van and Curtis (2019) investigated resilience-promoting factors on parental well-being in Australian parents of 30 severely injured children during the acute post-injury hospitalization period and using a qualitative inquiry (semi-structured interviews); the authors discerned that parents of children frequently adopted a range of cognitive (e.g., optimistic outlook for child's future) and emotion-regulation resources (e.g., expression of positive feelings) in order to support their psychological well-being and that of their children. These parents demonstrated high ability to problem solving, self-efficacy, sense of humor to relieve tension and mastery of critical situations through pro-active involvement in their child's care and seeking to understand their child's injuries and relative treatments. In a positive perspective, also Cheshire and colleagues (2010) found that parents of children with cerebral palsy use positive reinterpretation as strategy to cope with this event focusing on the positive aspects of the situation and finding meaning in caring for a child with cerebral palsy; this adaptive strategy is related positively with self-efficacy and negatively with depression and emotional stress. On the other hand, De Caroli and Sagone (2014) found that Italian mothers of children treated for cancer obtained higher levels of stress and showed a less positive image of parental self than the control group. On the contrary, Norberg, Lindblad and Boman (2005) compared the use of coping strategies by Swedish parents of children with cancer and parents of children with no serious or chronic diseases, discovering no differences in coping strategies between the two groups; in addition, a more frequent use of active problem-focused coping and a less frequent use of avoidance behavior and passive reaction were related to lower levels of anxiety and depression in parents both of children with cancer and of healthy ones.

5. Limitations and conclusions

The difference between chronic and slight illness hasn't been taken into consideration in our study and represents a limit of this investigation. It will be useful to make future comparisons considering both the length of hospitalization (short and long-term) and the types of illness (chronic and slight disease) that cause the hospitalization of children in order to better understand the effects of these variables on the well-being of parents. Furthermore, also within the Italian context, it could be very interesting to compare the use of coping strategies, resilient resources, and parental well-being at the admission to and discharge from hospital after a short or long period of treatment, as reported in similar way by Tiedeman (1997) and, more recently, by Wray and colleagues (2011). Consistently, as found by Salisbury and colleagues (2007), after analyzing both parental pre- and postoperative stressors and coping strategies in spinal surgery experience for scoliosis of their children, it emerged that parents used both emotion-focused and problem-focused coping strategies with significant increases in confrontive coping, planful problem solving, and positive reappraisal, as well as significant decreases in self-control and seeking social support. In the same direction, LaMontagne and colleagues (2003) found that parental anxiety decreased significantly from preoperative to postoperative levels but remained high, indicating that parents continued to be emotionally distressed during their child's recovery; positive reappraisal was the most often used emotion-focused coping strategy and seeking social support was the most often used problem-focused coping strategy.

Almost all cited authors in this study involved parents of healthy children as control group, instead of parents of children with different types and severity of illness. Probably, this lack of evidence is due to the difficulty to define and discriminate the diagnosis, classification of illness, and treatment that are influenced by several first-order factors (as the definition of symptoms, the results of blood tests, and so on). We believed that this aspect did not permit to easily make comparisons between two or more groups of parents analyzing the effects of the above mentioned variables on coping strategies, resilience, and psychological well-being. All these variables could be in-depth analyzed in future investigations, also after collecting a lot of information about diagnosis provided by medical staff or pediatricians.

Additionally, for future research, it will be useful to analyze the parental role's differences (mothers vs. fathers) in the examined constructs and to know the attitudes of parents of hospitalized children in order to investigate

the “themes” linked to the parental needs that affect the family well-being. For gender differences, Hoekstra-Weebers, Jasper, Kamps and Klip (1998) found that fathers used more active problem-focused strategies at diagnosis of cancer and less looking for diversion at 12 months after the discharge compared with mothers. Koch, Härter, Jakob and Siegrist (1996) reported that the mothers of children with chronic diseases more commonly used emotion-focused strategies, such as seeking of emotional social support, compared with fathers, but the differences were not very marked. Moreover, Larson, Wittrock and Sandgren (1994) as well as Mastroyannopoulou, Stallard, Lewis and Lenton (1997) found that, at diagnosis, fathers most commonly were more likely to cope practically or by emotional withdrawal, whereas mothers were more likely to cope through emotional release. As reported by Goldbeck (2001), parents in the oncology group reported significantly more rumination, more defense and more information seeking than the parents in the control group; they developed significantly less social support seeking and they had more difficulties in maintaining of personal stability than the control group. Parental and child’s quality of life was significantly lower in the oncology group, compared with the control one. Compared with fathers, mothers more frequently used social support seeking strategies, information seeking, and religious coping, and they were more successful in maintaining family integration and optimism, in maintaining personal stability, and in understanding the medical situation of their child.

As indicated by Hallström, Runesson and Elander (2002), the key themes emerging from parents of hospitalized children consisted of the “need for security”, “given a sense of security to the child” (being close to their child), “communication” (asking what will happen), “control” (controlling child’s physical condition), “pleasing staff” (doing what staff tells you even if you are not of the same opinion), “being a competent parent” (demanding to needs of child), the “family” (maintaining contact with relatives), the feeling of “relief” (relying on health-care professionals), and “satisfying personal needs” as sleeping or eating (Hallström *et al.*, 2002, p. 145).

The variety of findings and suggestions originated from this investigation will constitute a useful guide for the understanding of protective factors in relation to parental well-being and for the development of efficient parent training. Given the importance of family well-being towards the health of children and the effects of the previous variables on the psychological functioning of these families, a better analysis of the impact of hospitalization on the above mentioned psychological resources could be

necessary adopting a qualitative approach with the use of in-depth interviews or observational methods in family context.

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