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Stress and support in relation to parental self: A comparison between mothers of children in cancer treatment and mothers of healthy children

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Abstract

This study investigated the impact of parental self-representation on perceived stress and support in mothers of children in cancer treatment compared to mothers of healthy children. Measures: the Perceived Support Scale (De Caroli & Sagone, 2013), the Perceived Stress Scale (Cohen et al., 1983), and Semantic Differential Technique for Parental Self (De Caroli & Sagone, 2011). Results: Mothers of children in cancer treatment obtained higher levels of stress and perceived support than control group; additionally, mothers of children in cancer treatment showed a less positive image of parental self than control group. Negative correlations between levels of perceived stress and parental self and positive correlations between levels of support and parental self were found.

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Keywords: Stress, parental self, support, children in cancer treatment;

1. Introduction

Several empirical evidences suggested that parents of children with cancer reported higher levels of post-traumatic stress and dysfunctional coping strategies than parents of healthy children (see Barakat et al., 1997; Brown, Madan-Swain, & Lambert, 2003; Norberg et al., 2006; Han et al., 2009; Bennett et al., 2013). In fact, using the Impact of Event Scale, the Posttraumatic Stress Disorder Reaction Index, the Assessment of Life Threat Intensity Questionnaire, and the State-Trait Anxiety Inventory, Barakat et al. (1997) noted that mothers and fathers of children cancer survivors showed significantly higher levels of posttraumatic stress symptoms compared to parents of healthy children; in addition, family functioning (measured by Family Adaptability and Cohesion Evaluation Scale) and maternal social support were negatively correlated with posttraumatic stress symptoms.

Brown et al. (2003) found that mothers of adolescents cancer survivors, recruited from the Medical University of South Carolina, endorsed higher frequency of posttraumatic stress symptoms (measured with the Posttraumatic

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Stress Index: Pynoos et al., 1987) and reported greater recent and past stressful life events (valued using the Family Inventory of Life Events and Change: McCubbin, Patterson, & Wilson, 1996) than control group; in addition, the more the mothers of cancer survivors expressed an increased conflict and decreased support in the family functioning (measured with the Family Environment Scale: Moos & Moos, 1981) the more they reported a greater frequency of posttraumatic stress symptoms. Likewise, Norberg and her colleagues (2006) examined the relationships among anxiety, coping strategy of social support, and perceived social support in Swedish parents of children with successfully completed treatment for cancer, revealing that, specifically for mothers, anxiety was negatively related to support-seeking strategy and perceived support: in addition, perceived support appeared to be more important for the regulation of anxiety than support-seeking strategy. Furthermore, Han and her colleagues (2009) analysed the coping strategies (using the Coping Health Inventory for Parents: McCubbin et al., 1979) and the psychosocial adjustment (measured with the subscales of the Psychosocial Adjustment to Illness Scale: Derogatis, 1986) in a total of 200 Korean mothers of children with cancer. The authors found that the most helpful coping strategies were the maintenance of family integration and the optimistic definition of the situation; psychological distress was negatively correlated with family integration, cooperation, optimistic definition, communication with other parents, and consultation with healthcare professionals.

More recently, in a group of parents of children treated for brain tumour at the Nottingham University Hospitals (UK), Bennett and her colleagues (2013) found significant correlations among levels of parenting stress (measured by the Parenting Stress Index-Short Form: Abidin, 1995), type of parental locus of control (examined with the Parental Locus of Control Scale: Campis, Lyman, & Prentice-Dunn, 1986), and coping styles (valued with the Ways of Coping Questionnaire: Folkman & Lazarus, 1988). The results revealed that the more the parents of these children used external locus of control, the more they experienced high levels of parenting stress; furthermore, the more they applied the emotion-focused coping strategies (specifically, the strategies of the distancing, accepting responsibility, escape-avoidance, and self-controlling), the more they reported high levels of stress.

Few studies carried out in relation to the impact of parental self on levels of perceived stress and social support was found. In Italian context, De Caroli and Sagone (2013) found that, in relation to the experience of partum as possible stressful factor, the more the primiparous mothers perceived themselves to be supported (specifically, by their friends) and expressed a positive representation of Parental Self (measured by The Semantic Differential Technique: Osgood et al., 1957), the less they obtained high levels of stress (valued with the Perceived Stress Scale: Cohen et al., 1983). In another study, De Caroli and Sagone (2011) showed that the more the parents of disabled children (particularly, with autism syndrome) perceived themselves to be stressed, the more they expressed a negative representation of Parental Self (analysed with the Semantic Differential Technique); in addition, these parents expressed a low perceived support provided by rehabilitation centres and a more negative image of their disabled children. In line with this research interest, the current study investigated the impact of parental self-representation on perceived stress and support in a group of Italian mothers of children in cancer treatment compared to mothers of healthy children. We hypothesized that: 1) mothers of children with cancer will report higher levels of perceived stress and of support than mothers of healthy children, as noted in the abovementioned findings; 2) mothers of children with cancer will show a more negative image of Parental Self compared to mothers of healthy children; 3) finally, the more the mothers (particularly, those of children in cancer treatment) will express a positive representation of self as mothers, the more they will perceive themselves to be supported and the less they will feel themselves to be stressed.

2. Methodology

2.1. Participants

The sample of this research was composed by 100 Italian mothers, divided in 50 mothers of children in cancer treatment and 50 mothers of healthy children as control group. The age of mothers with children in cancer treatment ranged from 24 to 53 years (M=37,9, sd=5,7) and the age of mothers with healthy children from 21 to

42 years (M=31,1, sd=5,9). Mothers without depressive symptomatology or psychiatric treatment were selected from Public Hospitals of Catania, Divisions of Oncology and of Paediatrics (Sicily, Italy).

2.2. Measures and procedure

All mothers completed the Perceived Support Scale (De Caroli & Sagone, 2013), Perceived Stress Scale (Cohen, Kamarak, & Mermelstein, 1983), and Semantic Differential Technique (Osgood, Suci, & Tannenbaum, 1957).

The Perceived Support Scale (De Caroli & Sagone, 2011) was used to investigate the levels of perceived support respectively received by partners, friends, and specialized doctors (specifically, oncologists and paediatricians). It included three items, each valued on a 5-point frequency scale, ranging from zero (corresponding to "never") to 4 intervals (corresponding to "always"): for example, how often have you felt supported by your friends?. High mean scores expressed high levels of perceived support.

The Perceived Stress Scale (see Cohen et al., 1983), applied to measure the levels of stress during the last 12 months, was translated for Italian context and adapted to the specificity of circumstance (that is, the presence or the absence of children with cancer diagnosis). It consisted of 14 items, each valuable on 5-point frequency scale, ranging from zero (corresponding to "never") to 4 intervals (corresponding to "always"): for example, how often have you felt that you were unable to control the important things in your life?; how often have you felt that you were effectively coping with important changes that were occurring in your life? (Item reverse); how often have you felt nervous and stressed?. High mean scores indicated high levels of perceived stress.

The Semantic Differential Technique was used for the analysis of representation of Parental Self (see De Caroli & Sagone, 2011). This measure included 36 pairs of opposite adjectives (e.g., secure-unsecure, desirable-undesirable, stable-unstable, fragile-resistant), each valuable on 7-point Likert scale.

The examination of data was carried out by means of SPSS 15 for Windows, using t Student and Pearson's linear correlations.

3. Results

Data analysis demonstrated that in general the mothers of children in cancer treatment reported higher levels of perceived support than the mothers of healthy children (M=2,96, sd=,62 vs. M=2,71, sd=,51; $t_{(98)}$=2.18, p=.031). Specifically, the mothers of children in cancer treatment expressed higher levels of support by specialized doctors than the mothers of healthy children (M=3,12, sd=1,04 vs. M=2,40, sd=,99; $t_{(98)}$=3.54, p=.001), without significant differences in relation to the other situations (support by partner and by friends).

In relation to perceived stress, results showed that the levels of perceived stress were higher in mothers of children in cancer treatment compared to the mothers of healthy children (M=2,97, sd=,38 vs. M=1,74, sd=,42; $t_{(98)}$=15.27, p<.001).

Analysing the representation of Parental Self, results indicated that the mothers of children in cancer treatment showed a less positive image of self as mothers than that expressed by the mothers of healthy children (M=5,16, sd=,64 vs. M=5,70, sd=,37; $t_{(98)}$=-5.20, p<.001).

Positive correlations between perceived support and Parental Self were found only in the group of mothers with children in cancer treatment ($r_{(50)}$=.30, p=.036), in the sense that the more the mothers perceived themselves supported (specifically, by specialized doctors: $r_{(50)}$=.30, p=.033) the more they expressed a positive representation of Parental Self, and vice versa. Negative correlations between levels of stress and Parental Self were found, also in this case only in the group of mothers with children in cancer treatment ($r_{(50)}$= -.37, p=.008): the more the mothers perceived high levels of stress, the less they expressed a positive image of self as mothers, and vice versa.

Negative correlations were found between perceived support and levels of stress: the more the mothers of children in cancer treatment perceived to be supported by specialized doctors (that is, the oncologists), the less

they felt to be stressed ($r_{(50)}$= -.33, p=.02) and vice versa. Finally, the more the mothers of healthy children felt to be supported (specifically, by their partners: $r_{(50)}$= -.28, p=.05), the more they reported low levels of stress.

4. Conclusions

The current paper was focused on the comparison between the mothers of children in cancer treatment and control group in relation to perceived stress, support, and the representation of self-image as mothers. As in the first hypothesis, the mothers of children with cancer expressed higher levels of stress than the mothers of healthy children; this result meant that this group of mothers felt themselves unable to control the critical circumstances of their own everyday life, perceived the personal inadequacy to cope with paranormative or unexpected events that threaten the sense of self-efficacy (see Carter & McGoldrick, 1989), and believed to be unable to overcome the difficulties and to solve the problems of their children. These findings were consistent with the results provided by Fuemmeler, Mullins, and Marx (2001), Hung, Wu, and Yeh (2004), and Bennett et al. (2013). In fact, as noted by Fuemmeler et al. (2001), parents of children brain tumour survivors who experienced elevated levels of stress used denial and avoidance coping strategies. In addition, as found by Hung et al. (2004) in relation to the differences on parental stress (measured with the Parenting Stress Index: see Abidin, 1983) between parents of children with physical disabilities and parents of children with cancer, the results demonstrated that the parents of children with cancer experienced higher levels of stress than those of children with physical disabilities.

In addition, as in the first hypothesis, the mothers of children in cancer treatment experienced higher levels of support, especially by specialized doctors, than the mothers of healthy children. This last result provided a further confirmation of the importance of this type of support in terms of adequate source of information and assistance in malignancy condition. This feeling of support, deriving from this specific source, could be a protective or risk factor for the reduction or the increase of stress levels, as demonstrated in the current study: in fact, the mothers of children in cancer treatment were less stressed if they perceived themselves to be supported by specialized doctors; on the contrary, they were more stressed if they perceived themselves poorly supported in this condition. These findings were in line with the results provided by Lee, Chen, Wand, and Chen's study (2007) on parenting stress and social support in mothers and fathers of children with Tourette syndrome, Van der Veek, Kraaij and Garnefski's study on parents of disabled children (2009), and El Malla et al.'s research carried out on parents of children with tumour (2013). Thus, Lee et al. (2007) found that the main stressors for parents of children with Tourette syndrome were related to the difficulties of child care, the severity of disease, and the low social support. Furthermore, Van der Veek and her colleagues (2009) revealed that parents of children with Down syndrome who applied the strategies of acceptance and catastrophizing were more stressed than those who used the positive reappraisal strategy. Finally, El Malla et al. (2013) found that parents being met with care by the children's physicians at the beginning of chemotherapy treatment increased their trust in medical care.

In relation to the representation of Parental Self, the mothers of children in cancer treatment expressed a less positive image of self as mothers than control group. Additionally, the more they expressed a positive representation of Parental Self, the more the mothers perceived themselves to be widely supported (particularly, by specialized doctors); finally, the more they expressed a positive image of self as mothers, the less they felt able to cope with unexpected events in critical circumstances. These results constituted a confirmation of the initial hypotheses and could represent a further evidence of the effects of a positive image of self-concept on the quality of life in terms of coping strategy, resilience, and psychological wellbeing. This appears to be particularly important for the situations characterized by high levels of anxiety and stress related to a malignancy condition for their own children.

Future research could deepen the effects of treatment period and relapse (see Manne, DuHamel, & Redd, 2000; Jurbergs, Long, Ticona, & Phipps, 2009) on parental self and other psychological dimensions.

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