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Level of parenting stress in mothers of singletons and mothers of twins until one year postpartum: A cross-sectional study

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ABSTRACT

Problem: To date, it is unclear which factors are associated with parenting stress.
Background: There are no studies investigating the association between parenting stress and coping strategies such as coparenting and social support, while simultaneously considering demographic and obstetric factors, in mothers of singletons and twins.
Aim: To investigate if parenting stress is associated with personal, and obstetric characteristics, the level of coparenting, and the availability of and satisfaction with social support in mothers of singletons and twins until one year postpartum.
Methods: A cross-sectional study was conducted. A total of 151 singleton mothers and 101 twin mothers were included.
Results: Both singleton and twin mothers experiencing lower parenting stress levels indicated a better coparenting relationship quality ($\beta = -0.253$, $p < 0.01$; $\beta = -0.341$, $p = 0.001$). Elevated parenting stress levels positively influenced the level of satisfaction with social support in only mothers of twins ($\beta = 0.273$, $p < 0.01$). The availability of social support, personal, and obstetric characteristics were not associated with the level of parenting stress in neither singleton nor twin mothers.
Conclusion: Coparenting seems to be a significant coping strategy reducing the level of parenting stress in singleton and twin mothers, irrespective of their personal and obstetric characteristics. Large-scale longitudinal research is needed to identify predictors of parenting stress, which may help to develop parenting stress reducing interventions. The acknowledgement and support of an adequate coparenting relationship quality by health care professionals might be an important factor to include in such interventions.

Statement of significance

Problem or issue

To date, it is unclear which factors are associated with parenting stress.

What is already known

Social support and coparenting have been identified as two coping strategies to prevent or mitigate the level of parenting stress and its adverse consequences. Besides these coping strategies, there is limited research suggesting that there might be other factors influencing the level of parenting stress, including demographic, prenatal, obstetric, and postpartum factors. However, it still remains unclear which of these factors are associated with parenting stress.

What this paper adds

This study is the first examining if parenting stress is associated with personal, and obstetric characteristics, the level of coparenting, the availability of and satisfaction with social support in mothers of singletons and mothers of twins until one year postpartum.

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1. Introduction

There is a growing body of knowledge recognising the considerable adverse effects of parenting stress on the mother, her partner, and the child. Parenting stress is defined as "an imbalance between the perceived demands of parenting and the perceived available resources".[1] Higher parenting stress levels are associated with a higher risk for developing postpartum depression, lower levels of marital satisfaction, negative parent-child interactions, and even the development of behavioural problems and psychopathology in children.[2] Previous research established that some parents are at higher risk for developing parenting stress, including mothers who gave birth to twins.[3,4] These higher parenting stress levels can be explained by greater functional, financial and/or medical demands faced by mothers of twins during pregnancy and postpartum.[3]

Social support and coparenting have been identified as two considerable coping strategies to prevent or mitigate the level of parenting stress and its adverse consequences.[4,5] Social support is defined as "having one's need met through the presence of and interaction with others, such as spouses or partners, family members, or friends".[6] Social support can be emotional, informational, and instrumental.[6] In general, literature indicates that women perceive their partner and own mother as the most important sources of support.[4,7] In addition, a higher perception of own mother's support has found to be associated with better well-being and mental health in mothers,[4,7] and a better marital relationship.[4,7] In contrast, lack of support from family members, friends, and colleagues might contribute to the development of postpartum stress and depression.[8]

In addition to social support, several studies identified coparenting as another significant element in coping with parenting stress.[4,8] Coparenting is defined as "the way parents support and coordinate with each other in their roles as parents".[9] The definition refers to two people who are collectively raising a child, regardless of whether or not they are both biological parents or have ever been romantically involved.[10] Literature indicates that good coparenting leads to less parenting stress, while insufficient coparenting causes more parenting stress.[11] Better coparenting has also been linked with higher relationship quality between parents.[12]

Besides these coping strategies, there is limited research suggesting that there might be other factors influencing the level of parenting stress, including prenatal, obstetric, and postpartum factors.[13] However, it remains unclear which of these factors are associated with parenting stress. Also the association between demographic factors and parenting stress show inconsistencies in literature.[13] A search of the literature revealed no studies investigating the association between parenting stress and both the coping strategies coparenting and social support, while simultaneously considering demographic and obstetric factors. Moreover, there are no studies examining the associated factors of parenting stress in mothers of singletons and mothers of twins.

The objective of this study is to investigate if parenting stress is associated with personal, and obstetric characteristics, the level of coparenting, the availability of social support, and the level of satisfaction with social support in mothers of singletons and mothers of twins until one year postpartum.

2. Methods

2.1. Design and setting

A cross-sectional study was conducted in one university hospital, and one regional, none-university hospital in Flanders (Northern region of Belgium). In addition, the Flemish agency 'Kind en Gezin' [Child and Family] being active in the 'Public Health, Welfare and Family' policy area, and organizing and delivering primary health care, distributed the questionnaires among eligible participants in their caseload.

2.2. Sample

Participants were included if they had given birth to a singleton or twins after 33 weeks of pregnancy, and if they spoke and understood Dutch. Participants were excluded if their last born child(ren) was/were (1) older than one year, and/or (2) admitted to neonatology at the moment of data collection. Since the population was difficult to reach due to the specificity of the inclusion criteria, a mix of convenience and snowball sampling was used to recruit mothers. The final sample consisted of 252 participants, including 151 mothers of singletons and 101 mothers of twins.

2.3. Data collection

Participants were recruited between January and May, 2016. Participants had to complete a questionnaire, which included an informed consent explaining both the context and the aim of the study.

2.4. Instruments

The questionnaire was based on three existing validated instruments (Parental Stress Scale, Coparenting Relationship Scale, and Social Support Questionnaire) for measuring respectively the level of parenting stress, the level of coparenting, the availability of and the level of satisfaction with social support. Two professional translators having no background knowledge about the topic independently translated each original instrument to Dutch. The translated instruments were compared, discussed, and the most adequate translation was selected. The translated instrument was reviewed by a panel of four experts (with expertise in mother and child care or methodology) and six non-professionals (mothers who met the inclusion criteria) during individual face-to-face discussions. The panel evaluated the translated instruments in terms of clarity and face validity, involving two rounds. Several alterations were made to adapt the questionnaire to the Flemish context. The same translators assessed the linguistic conformity of each item in the Dutch-language questionnaire compared with the original English instrument. The feedback was integrated in the final version of the questionnaire.

The Parental Stress Scale (PSS)[14] was developed to measure the level of parenting stress experienced by parents taking into account the positive and negative aspects of parenting. The original questionnaire consists of 18 items rated on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). A higher total score is indicative of higher parenting stress levels.[14] The original PSS demonstrated satisfactory levels of internal consistency (0.83), and test-retest reliability (0.81), as well as good convergent and discriminant validity.[15] The final scale in our study comprised of 19 items rated on a 6-point Likert scale from 1 (*strongly disagree*) to 6 (*strongly agree*). To become specific answers, the panel decided to omit the original rating option '*undecided*' and to replace it by two new rating options being '*rather disagree*' and '*rather agree*'. One item of the original PSS was extracted, and included as a separate question. The panel added two items to the final PSS. Cronbach's alpha for this final scale was 0.87.

The Coparenting Relationship Scale (CRS)[5] is a 35-item self-report scale measuring the quality of coparenting in a family, which is in this article referred to as 'the level of coparenting'. The higher the total score, the higher the level of coparenting and thus the better the coparenting relationship quality. The first part of the

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