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Services use by children and parents in multiproblem families

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ABSTRACT

Background: Multiproblem families are multi-users of psychosocial and health care services, but little is known about factors associated with their care utilization in the general population. The aim of this study was to assess which factors were associated with the overall and psychosocial care use of two members—i.e., child and parent—of each multiproblem family.

Methods: During well-child visits or psychosocial care, we identified 354 children and their parents who had problems in several life domains (response 69.1%). We used multivariate stepwise backward logistic regression analyses to identify the factors related to their use of overall and psychosocial care.

Results: A child's overall care use was associated with greater social support from family and friends (odds ratio, OR, 95% confidence interval, CI; OR = 1.05, CI = 1.01–1.08) compared to less perceived social support; and with more psychosocial problems in the child (OR = 1.84, CI = 1.04–3.24). Child's psychosocial care use was more likely among older children (OR = 1.94, CI = 1.20–3.15); greater social support by family and friend (OR = 1.03, CI = 1.00–1.06); more psychosocial problems (OR = 1.75, CI = 1.04–2.97); and when there were more parenting concerns (OR = 1.19, CI = 1.06–1.33). Parental overall and psychosocial care use was more likely when the family experienced a higher number of life events (OR = 1.27, CI = 1.17–1.38, and OR = 1.39, CI = 1.25–1.55).

Conclusions: Care use in multiproblem families is related to family factors as well as psychosocial problems. It may be possible to use these family risk factors to identify such families early, whose intensive care use is possibly explained by the relationship with inadequate use of social support.

1. Introduction

Multiproblem families have problems in several areas of life, including poverty and psychosocial problems (Tausendfreund, Knot-Dickscheit, Post, Knorth, & Grietens, 2014). Children raised in such families run a high risk of poor mother-child attachment and of developing behavior and emotional problems (Denholm, Power, Li, & Thomas, 2013; Lucas, McIntosh, Petticrew, Roberts, & Shiell, 2008; Stith et al., 2009). Typically, these children and parents are multi-users of psychosocial care, such as social and mental healthcare. Research shows that these services spend up to 86% of their budgets on multiproblem families (Goerge, Smithgall, Seshadri, & Ballard, 2010; Sacco, Twemlow, & Fonagy, 2008).

Several western countries have developed policies and programmes dealing with families with multiple problems, e.g. the 'Troubled families' programme in the United Kingdom (Hayden & Jenkins, 2014), the 'One family, one plan, one care coordinator' programme in The Netherlands (NJI, 2011) and 'Wrap around care' in the Unites States of America (Bruns, Burchard, & Yoe, 1995). These initiatives aim to develop more efficient pathways to care for multiproblem families. Less focus lies on understanding the mechanisms behind the help seeking behavior of families (Morris, 2013). Insight into the reasons behind care use of multiproblem families will improve our understanding of their care seeking behavior which may help to break the intergenerational cycle of intensive care use.

A framework for understanding the factors associated with care use of multiproblem families is provided by Andersen and Newman's behavioral-health model of access to care (Andersen & Newman, 1973). The Andersen framework determines access to care on the basis of 1. predisposing factors or an individual's characteristics or abilities to use a specific service (such as, gender, age and cultural identity); 2. enabling factors or means whereby a family accesses care (for example,

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social support or practical barriers to care); and 3. healthcare needs (for example, a child's emotional or behavioral problems). We chose for this framework because it addresses multiple domains from a services user point of view. Goldberg and Huxley's framework pathways to care is another well used framework for understanding care use (Goldberg & Huxley, 1980). The pathways to care of multiproblem families from a provision of services point of view has already been mapped according to this framework (Hayden & Jenkins, 2014; Hayden & Jenkins, 2015). We feel that Andersen and Newman's dual emphasis on individual and family factors is a better starting point for understanding the complex and often intergenerational problems of multiproblem families.

This study aims to understand the mechanisms underlying care use by multiproblem families, which may lead to better support for children raised in these families. This requires research into a broad range of parents' and children's use of services such as mental health and social care services, debt counseling, general practitioners, and medical specialists (Wölfle et al., 2014). The research question was: which factors of the Andersen and Newman's model are associated with overall and psychosocial care use of two members – i.e. child and parent- of each multiproblem family? For this explorative study, we selected factors based on the literature on care use by children with psychosocial problems (Nanninga, Jansen, Knorth, & Reijneveld, 2015; Verhulst & Van Der Ende, 1997) and multiproblem families (Goerge et al., 2010; Tausendfreund, Knot-Dickscheit, Schulze, Knorth, & Grietens, 2016). We expected that the factors associated with care use reflected the multiple domains of problems of these families and include not only need but also predisposing and enabling factors.

2. Methods

This study is part of a cohort study on service use and its determinants among multi-problem families in an urban setting in the Netherlands. We used a cross-sectional design to study correlates of children and parents' care use. The study was conducted according to the Helsinki regulation. The Medical Ethics Committee of Leiden University assessed our study proposal and concluded that approval was not required under Dutch Law (C12.041).

2.1. Sample and procedure

The aim of our study was to better understand the mechanism underlying care use by multiproblem families. To reach this aim, we wanted to include multiproblem families among which the use of services varied. Therefore we took two samples:1. a community sample of multiproblem families who did and did not use care and 2. an added sample of high care use multiproblem families to ensure that care users were sufficiently represented. For the sample of the general population children aged between 18 months and 12 years had been identified during well-child visits. In the Netherlands these well-child visits are provided by preventive youth health care services and have a attendance rate of 95% for children in our age-sample (CBS, 2014). The sample with a high risk of care use consisted of families enrolled in child and family focused specialist psychosocial care services.

Families were included if they met one of the following criteria: 1. the presence in children aged 3–12 years of psychosocial problems as indicated by elevated scores on the routinely collected parent-reported Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997) or, in younger children, the psychosocial problems indicated by the professional who made the assessment; 2. the identification by the preventive child healthcare worker of persistent parenting concerns; 3. the occurrence of one or more major life event during the past year; and 4. the use of care due to any of the previous criteria.

A total of 512 parents received a digital questionnaire or were interviewed by telephone in the language of their preference, 354 of whom (69.1%) participated. Of these 354 parents, 45 parents were part of the extra sample of users of psychosocial care services. Two or more of the inclusion criteria were met by 96% of the parents, these parents are part of the final sample, from hereon called the multiproblem family. Four out of five respondents met three or more inclusion criteria. In only 7% of the respondents care use was combined with one other inclusion criterion. In 93% combinations of the other criteria, in addition to care use, were decisive for inclusion.

We do not know the reasons of non-respondents for not answering the invitation to fill in the questionnaire, despite their initial consent to participate. In the non-response group, compared to the response group, children were slightly younger (4.8 vs. 5.9 years, $p < 0.001$) and more parents had a low socioeconomic position based on their neighborhood (73.4% vs. 37.9%, $p < 0.001$) (SCP, 2015).

2.2. Measures

Service use was measured as overall and psychosocial care use of a child from a multiproblem family in the previous six months. We also measured the overall and psychosocial care use of the child's parent. Overall care use involved any use of care and service delivered in the psychosocial or medical domain in the previous six months, e.g. by the general practitioner, paramedical services (e.g., physiotherapist), medical specialist, mental healthcare services, social care services, school care services or family services. The latter four types of care were also the components of psychosocial care use, which was defined as care use due to psychosocial problems. Overall care use was dichotomized as care or no care use, and psychosocial care as using psychosocial care versus using no care or using other types of care. All four dependent variables were measured using a framework adapted from the Trimbos/Imta questionnaire for costs associated with psychiatric illnesses (also known as TIC-P) (Hakkaart-Van Roijen, Van Straten, Donker, & Tiemens, 2002).

Predisposing factors involved a child's gender and age, parents' educational level, household composition, ethnic identity as perceived by the parent, and the adverse life events they had experienced. Life events such as unemployment or loss of a loved one in the past 12 months were measured on the life-events scale of the Brief Instrument Psychological and Pedagogical Problem Inventory or KIPPPI (*Cronbach's* $\alpha = 0.79$) (De Wolff, Theunissen, Vogels, & Reijneveld, 2013).

Enabling factors included social support and care use by another family member. To measure social support, we used two subscales of the Dutch Family questionnaire (Van der Ploeg & Scholte, 2008): 1. “social functioning of the family” (*Cronbach's* $\alpha = 0.91$) and 2. “relationship with partner” (Cronbach's $\alpha = 0.83$). A child's care use was the enabling variable of the parent's dependent variables, and a parent's care use was the enabling variable of the child's dependent variables.

Need factors included a child's health, emotional and behavioral problems, and the parent's mental health and parenting concerns. A child's chronic health conditions involved the parent's response to the following question “Does your child suffer from one or more chronic health conditions—such as asthma, diabetes, ADHD or autism—for which treatment is or was needed?”. A child's behavioral and emotional problems were measured using the Brief Infant-Toddler Social and Emotional Assessment (BITSEA) for children aged between 18 months and 3 years (Briggs-Gowan, Carter, Irwin, Wachtel, & Cicchetti, 2004) and the Strengths and Difficulties Questionnaire (SDQ) for children aged between 3 and 12 years (Goodman, 1997); the validated Dutch versions of both were found to be reliable (*Cronbach's α's of the subscales SDQ ranging from 0.57 to 0.82 and Cronbach's α's of the subscales BITSAE are 0.79 and 0.62*) (Kruizinga et al., 2012; Theunissen, Vogels, De Wolff, & Reijneveld, 2013). Parental mental health status was measured using the 12-item version of the General Health Questionnaire (GHQ12) (*Cronbach's* $\alpha = 0.87$) (Koeter & Ormel, 1991). Finally, parenting concerns were assessed using the following question “Did you have concerns about your parenting in the past 12 months?” (Zeijl, Crone, Wiefferink, Keuzenkamp, & Reijneveld, 2005).