

## Family Resilience of Children with Cancer: A Latent Profile Analysis

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**Abstract :** Background: Every year, approximately 429,000 adolescents aged 0-19 are diagnosed with cancer worldwide. The diagnosis brings about substantial psychological pressure and caregiving responsibilities for family members and impacts the families significantly. Family resilience has been found to reduce caregiver distress and can also foster post-traumatic growth in cancer survivors. However, current research on family resilience in childhood cancer mainly focuses on individual caregiver resilience and child adaptation, with less attention given to categorizing family resilience among caregivers of children with cancer. Method: A total of 292 caregivers of children with cancer were recruited from four tertiary hospitals in central China from July 2022 to March 2024. This study was approved by the ethics committee, and participants provided informed consent, with the option to withdraw at any time. The Family Resilience Assessment Scale was used to measure family resilience among caregivers of children with cancer. The Quality of Life scale-family, The Perceived Social Support Scale, and The Connor-Davidson Resilience Scale were used to measure potential influencing factors. This study used latent profile analysis (LPA) to identify latent categories of family resilience among caregivers of children with cancer. Binary logistic regression was used to analyze the influencing factors of family resilience. Results: The results reveal two distinct categories: "high family resilience" and "low family resilience." "Low family resilience" group accounts for 85.96% of the total while "high family resilience" group is 14.04%. "High family resilience" scores higher across all dimensions compared to "low family resilience". Within-group comparisons reveals that "family communication and problem-solving" and "empowering the meaning of adversity" received the highest scores, while "utilizing social and economic resources" scores the lowest. "Maintaining a positive attitude" scores similarly high to "family communication and problem-solving" in the high family resilience group, whereas it scores similarly low to "utilizing social and economic resources" in the low family resilience group. In single-factor analysis, residence, number of siblings, caregiver's education level, resilience, social support, quality of life, physical well-being and psychological well-being showed significant difference between two categories. In binary logistic regression analysis, households with only one child are more likely to exhibit low family resilience, whereas high personal resilience is associated with a high level of family resilience. Conclusion: Most families with children suffering from cancer require strengthened family resilience. Support for utilizing socio-economic resources is important for both high and low family resilience families. Single-child families and caregivers with lower resilience require more attention. These findings imply the development of targeted interventions to enhance family resilience among families with children of cancer. Future studies could involve children and other family members for a comprehensive understanding of family resilience. Longitudinal studies are necessary to explore the dynamic changes in family resilience throughout the cancer journey.

**Keywords :** cancer children, caregivers, family resilience, latent profile analysis

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