BACKGROUND: Potocki-Lupski syndrome (PTLS) or duplication 17p11.2 syndrome is a newly characterized condition found to cause a variety of health problems including failure to thrive in infancy and childhood, low muscle tone, structural heart anomalies, cognitive impairments, speech and learning difficulties, and autism. Because PTLS has been recently reported (April 2007) and there are only a few confirmed diagnoses (approximately 60), little is understood about the long-term consequences for children affected with PTLS and the impact of this diagnosis on patients and their families. For this reason, this study was conducted comparing parents of children with PTLS to determine if levels of functioning and strategies for coping differ based on disease severity. METHODS: Mail-out questionnaires were provided to 58 parents listed in the PTLS database maintained by Baylor College of Medicine (BCM) at Texas Children’s Hospital (TCH). Participants were contacted because they had a child with a confirmed diagnosis of PTLS. Parental stress, anxiety, quality of life, and coping techniques was analyzed using the PedsQL Family Impact Module and Coping Health Inventory for Parents (CHIP). A disease severity scale consisting of five common clinical features was also used to classify the affected children as severely or mildly affected. Statistical comparisons were made for parental functioning and coping between the groups based on the severity of the condition. RESULTS: Significant differences were not observed in the quality of life, family functioning, or coping techniques between parents of children with low and high disease severity. When analysis was further stratified by clinical feature, significant statistical findings were present in the comparison of the impact of feeding difficulties and cardiovascular defects with parental functioning and health-related quality of life. CONCLUSIONS: After comparison of the data, it appears that functioning and coping is similar in parents of children with low and high severity. Comparisons made within each feature indicate that parental level of functioning worsens as the severity of feeding difficulties increases. In contrast, parental functioning improves as the severity of a cardiovascular defect increases. Results from this study aim to provide important information about the needs of parents of children affected by PTLS, highlighting areas in which medical practice may be changed in order to meet these needs, and leading to better care and education for family members.