

Is Nasoalveolar Molding a Help or Burden: A Multi-center Intercultural Evaluation of Parental Stress

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Introduction: Among the several surgical issues of cleft lip and palate (CLP), the functional and aesthetic reconstruction of the deformed cleft nose still poses one of the biggest challenges. Nasoalveolar Molding (NAM) was shown to effectively facilitate reconstruction in several aspects on one hand, but challenging caregivers' compliance and motivation by time-intensive daily care and weekly appointments from their children's first days of life on for months. We present our evaluation of parental perception of the psychological burden of NAM treatment overall compared to conventional treatment and further point out intercultural and gender differences in comparison between our two treatment centres.

Materials and Methods: Questionnaires with 15 NAM independent and 14 NAM specific standardized items were designed in interdisciplinary work involving maxillofacial surgeons, plastic surgeons, psychologists and statisticians. Answers were given in Likert-Scale with five categories from strong disagreement to strong agreement. These questionnaires were sent to parents of patients with complete unilateral CLP born between 2010 and 2014 who were treated with NAM in one of the two treatment centers and the voluntarily returned questionnaires were finally statistically analyzed.

Results: 68 patients were included into the study (18 from Germany vs 50 from Taiwan), and high return rates of approximately 75% were measured. Parental perception was found to significantly differ regarding *prenatal information* (with Taiwanese parents to feel better informed), *feeding* (showing German parents to perceive less feeding problems in general), *3rd party's perception* (resulting in worse despite still well handling of others reactions and questions by Taiwanese parents), *personal effort* (with higher time effort and a higher grade of disturbance of their child in Taiwanese parents). Minor but significant differences were also found for *overall satisfaction by NAM*, nevertheless showing a very high grade of satisfaction by NAM in both groups of parents. Gender comparison in general and in between the two sub-groups revealed no significant differences in parental perception.

Conclusion: NAM shows to be a highly accepted treatment method by the patients' parents with minor intercultural and no significant gender related differences in parental perception. Additionally, NAM seems to be a useful coping strategy for parents of patients with CLP.