

Preface

The dramatic and continuous increase of survival of infants prematurely born over the last decade is very much due to the development of medical care and technological equipment that “inadvertently” led to separation of infants from their mothers. Despite this improvement in medical outcomes, vulnerable preterm infants remain at risk of altered neurodevelopment and it appears now essential to promote early, prolonged and as continuous as possible, contact between the infant and his/her parents. There is a growing consensus that the outcome of neonatal intensive care can be enhanced even further by not only perform needed tasks *upon* the infant but to do them in a collaborative manner *together* with infants and parents – moving from primarily task-oriented care to relationship based care. Subsequently, there is an increasing acceptance to invite parents to the nurseries and involve them in the caregiving and decision-making – empowering parents. It promotes continuity in the practical handling of the infant and, more importantly, it ensures the benefits of deep emotional contact with the infant that only parents can provide. This includes of course, skin-to-skin contact, breastfeeding and, early vocal contact to which this book is dedicated.

The main goal of this manual is to enlighten knowledge gained in the last decades on early vocal interactions with preterm babies. It aims first to clarify the multiple biological processes underlying the effects of early vocal contact in the normal development of fetuses, newborns, and in infants prematurely born. Second, it addresses the question of the efficiency of this intervention in preterm infants - in the Neonatal Intensive Care environment and according to preterm infants auditory, social and communicative development.

This book has to be considered in the broad context of developmentally supportive and family centered care. It is on maternal voice. However, with some exceptions, readers can substitute maternal voice, or maternal vocal contact, with parental voice, or vocal contact. The exceptions are linked to the specific role that the maternal voice has for fetuses during gestation. The father’s and other caregiver’s voice, in fact, are much less present than the mother’s voice during pregnancy and gradually increase their role during infant development. However, the progressive increase in paternal presence can ensure the fundamental role of both parents.

This book is a multidisciplinary work with crossed views from different horizons. It navigates from theoretical perspectives to careful evaluation of specific implementations of early interventions, from neuroscientific data on cortical integration to behavioral analyses of social communication and interaction. This collaborative approach is a source of enrichment which lead also to constructive discussions and maybe partial controversies on some aspects between chapters. However, taken together all the chapters share a humane approach supporting close contact between infants and parents.

Obviously, the future health and development of prematurely born infants are depending both on sophisticated medical/technical care and also on parental involvement in the caregiving. As editors, we would like to draw the attention of the readers to one important point to keep in mind when considering the collaboration between professionals and parents to support early vocal contact. This intervention should be tailored to the physiological maturation and development of the infant, the infant's current medical condition as well as to the mental state of the parents. There is an enormous difference between a two-week-old infant born after 32 weeks of gestation without any technical support and a four-day-old infant born after 23 weeks on mechanical ventilation. Most of the reports in this book are based on studies of the more mature and stable infants. Hence, to guarantee the safety of the infant, parental vocalization in the NICU, as all interventions, must be adjusted to the need of the individual infant and family. This can only be ensured if the nursery can provide care according to infant-and family-centered developmentally supportive care principles, e.g., having staff trained in and providing guidelines based on Newborn Individualized Care and Assessment Program.

As editors, it has been very rewarding to reflect and interact with all authors. However, we should also bear in mind the other specialists, whose expertise in the field would have placed them as legitimate authors, but for different reasons were not able to contribute to the book. We hope that also the readers will enjoy reading about the various topics of the chapters, gaining new insights and that the book will contribute to support the future preterm infant's brain development and the strength and resilience of their families.

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