Chapter 1

Introduction

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CAUSES AND PREVENTION OF LABOR DYSTOCIA: A SYSTEMATIC APPROACH

Labor dystocia, dysfunctional labor, failure to progress, arrest of labor, arrested descent—all these terms refer to slow or no progress in labor, which is one of the most vexing, complex, and unpredictable complications of labor. Labor dystocia is the most common medical indication for primary cesarean sections.[1] Some have suggested that the use of the term "dystocia" be abandoned in favor of more precise definitions since one clear explanation is lacking.[1] The modern course of labor is very different than in the past, and optimal strategies to reduce unnecessary interventions while providing interventions when needed and appropriate are still under investigation.[2] Dystocia also contributes indirectly to the number of repeat cesareans, especially in countries where rates of vaginal births after previous cesareans (VBAC) are low. Thus, preventing primary cesareans for dystocia decreases the total number of cesareans. The prevention of dystocia also reduces the need for many other costly, time-intensive, and possibly risky interventions, and spares the laboring person from discouragement and disappointment that often accompany a prolonged or complicated birth.[3]

The possible causes of labor dystocia are numerous. Some are *intrinsic*:

- The powers (uterine contractions).
- The passage (size, shape, and joint mobility of the pelvis and the stretch and resilience of the vaginal canal).
- The passenger (size, shape, and flexion of fetal head, fetal presentation, and position).
- The pain (and the laboring person's ability to cope with it).
- The psyche (emotional state of the laboring person).

Others are *extrinsic*:

- Environment (the feelings of physical and emotional safety generated by the setting and the people surrounding the laboring person).
- Ethno-cultural factors (the degree of sensitivity and respect for the person's culture-based needs and preferences).
- Hospital or caregiver policies (how flexible, family- or person-centered, how evidence-based).
- Psycho-emotional care (the priority given to non-medical aspects of the childbirth experience).

The focus of Simkin's Labor Progress Handbook is on prevention, differential diagnosis, and early interventions to use to prevent labor dystocia. We emphasize relatively simple care measures and low technology approaches

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designed to help maintain normal labor progress, and to manage and correct minor deviations before they become serious enough to require technologic interventions. We believe this approach is consistent with worldwide efforts, including those of the World Health Organization, to reserve the use of medical interventions for situations in which they are needed: "The aim of the care [in normal birth] is to achieve a healthy mother [birth parent] and baby with the least possible level of intervention that is compatible with safety."[4]

The suggestions in this book are based on the following premises:

- The timing of dystocia is an important consideration when establishing cause and selecting interventions.
- Sometimes several causal factors can occur simultaneously.
- Clinicians and caregivers are often able to enhance or maintain labor progress with simple non-surgical, non-pharmacological physical, and psychological interventions. Such interventions have the following advantages:
  - Compared to most obstetric interventions for dystocia, they carry less risk of harm or undesirable side effects to laboring person or fetus;
  - The laboring persons is autonomous with the right to accept or refuse interventions. These suggestions treat the laboring person as the key to the solution, not part of the problem;
  - They build or strengthen the cooperation between the laboring person, their support people (loved ones, doula), and their clinicians;
  - they reduce the need for riskier, costlier, more complex interventions;
  - They may increase the person's emotional satisfaction with their experience of birth.
- The choice of solutions depends on the causal factors, if known, but trial and error is sometimes necessary when the cause is unclear. The greatest drawbacks are that the laboring person may not want to try some interventions; they may take time; and/or they may not correct the problem.
- Time is usually an ally, not an enemy. With time, many problems in labor progress are resolved. In the absence of medical or psychological contraindications, patience, reassurance, and low- or no-risk interventions may constitute the most appropriate course of management.
- The clinician may use the following to determine the cause of the problem(s):
  - Objective data: vital signs; fetal heart rate patterns; fetal presentation, position, and size; cervical assessments; assessments of contraction strength, frequency, and duration; membrane status; and time;
  - Subjective data: person's affect, description of pain, level of fatigue, ability to cope using self-calming techniques:
  - Essential components:
    - Attentive listening
    - Informed consent and refusal
    - Shared decision-making with the laboring person

Chart 1.1 illustrates the step-by-step approach followed in this book—from detection of little or no labor progress through graduating levels of interventions (from simple to complex) to correct the problem.

If the primary physiologic interventions are contraindicated or if they are unsuccessful, then secondary—relatively low-technology—interventions are used, and only if those are unsuccessful are tertiary, high-technology obstetrical interventions instituted under the guidance of the physician or midwife. Other similar flow charts appear throughout this book showing how to apply this approach to a variety of specific causes of dysfunctional labor.

Many of the interventions described here are derived from the medical, midwifery, nursing, and childbirth education literature. Some of the strategies described in this book lend themselves to randomized controlled trials, others do not. Others come from the psychology, sociology, and anthropology literature. Suggestions also come from the extensive wisdom and experience of nurses, midwives, physicians, and doulas and other labor support providers. Many are applications of physical therapy principles and practices. The fields of therapeutic massage and chiropractic provide methods to assess and correct soft tissue tension and imbalance that can impair labor progress. We have provided references for these, when available. Some items fall into the category of "shared wisdom," where the original sources are unknown.

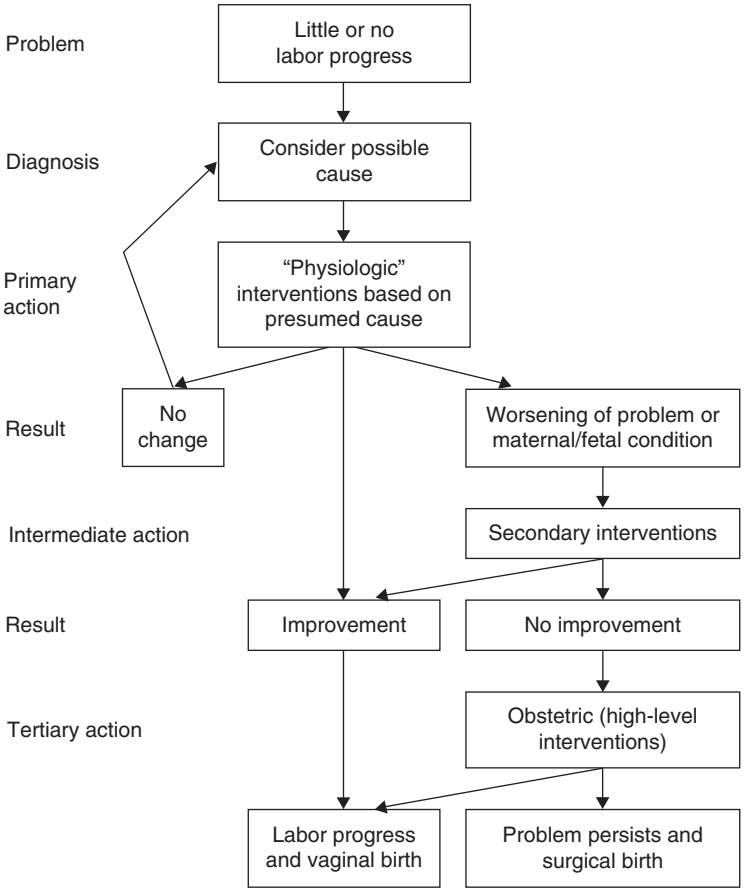

Chart 1.1. Care plan for the problem of "little or no labor progress."

During the past half-century, extensive scientific evaluation of numerous entrenched medical customs, policies, and practices, intended to improve birth outcomes, has determined that many are ineffective or even harmful. Routine practices, such as enemas, pubic shaving, routine continuous electronic fetal monitoring, maternal supine and lithotomy positions in the second stage of labor, routine episiotomy, immediate clamping of the umbilical cord, routine suctioning of the newborn's airway after birth, and separation of the newborn from parent/s are examples of care practices that became widespread before they were scientifically evaluated. Scientific study now shows that these common practices were not only ineffective, they increased the risks for the birthing person and neonate.[5]

Other valid considerations, such as the laboring person's needs, preferences, and values, also play a large role in the selection of approaches to their care. Our paradigm is one of respectful maternity care, although we recognize that throughout history and around the world, laboring people have been subject to racism, sexism, gender discrimination, disrespect, and other abusive and harmful behaviors. It is our expectation that laboring people are treated using a respectful maternity care and human rights model.

Racism and white supremacy are pervasive in obstetric care. Scholars have identified that many of the people identified as early founders of obstetrics and gynecology learned their skills through experimentation, coercion, and abuse of black, brown, and poor birthing people.[6] Therefore, in this book, we will avoid using the names of

those early experimenters in favor of descriptive terminology, for example, left side lying, or runner's lunge for the position formerly called by a gynecologist's name. Additionally, for one hundred years, nurses, midwives, and physicians were taught a system of pelvic classification with the aim of predicting difficult births that was overtly racist, and based only on pseudoscience.[7] Therefore, in this book, we recognize that humans and pelvises are dynamic, and there is not one perfect pelvis. Rather, our goal is to help birthing people and birth workers take advantage of the mobility of the pelvis. The interventions and positions shown throughout this book are offered to provide many options in one place, rather than a "one size fits all" approach.

Maternity care practices, providers, and outcomes differ around the world. Many counties have recognized the importance of improving maternal and neonatal care, although progress has been slow.[8,9] During the past decade, increasing evidence has pointed to the importance of midwives to improve outcomes. In 2014 the *Lancet* published a series on midwifery in four papers.[10–13] The goal of the series was to correct misunderstandings about the midwifery profession. An important conclusion of the series was that better utilization of midwives could prevent a significant portion of perinatal morbidity, including stillbirth. Many countries are working toward a goal of strengthening their midwifery workforce and increasing access to midwifery care to decrease maternal morbidity and mortality.[14] Midwifery care is associated with more spontaneous vaginal birth, less preterm birth, less epidural use, less episiotomy use, fewer instrumental births.[15] Currently, we must find the balance between intervention and non-intervention. There is a time and place for both, but around the world more labor interventions are occurring without an improvement in outcomes for pregnant and birthing people and their newborns.

Depending on healthcare setting, midwifery training and availability, the World Health Organization makes a recommendation for Midwifery Led Continuity of Care models (MLCC).[16] MLCC involves care by a midwife or team of midwives during the antenatal, intrapartum, and postpartum period.[16] MLCC does not exclude other caregivers from providing care, but rather starts most pregnant people with the midwifery model, and those who need care by other professionals are referred based on their specific needs or conditions. While high-risk pregnant people benefit from the care of an obstetrician, low-risk pregnant people generally benefit from less invasive approaches to care provided by a midwife or family/general physician. Midwifery care is rooted in evidence-based care—a combination of research evidence, clinical experience, and the needs and wishes of the pregnant, laboring, or birthing person.[17]

May 5 is the International Day of the Midwife; in 2021 the theme of the day was "follow the data and invest in midwives."[14] Midwifery care varies widely by country. In the UK midwives and general practice providers deliver 80% of maternity care while in the United States midwives deliver approximately 10% of maternity care.[18,19] In some countries, such as Germany and Japan, there are many more midwives than obstetricians.[20] Many countries are working to increase their midwifery workforce, such as India, which has developed the Nurse Practitioner in Midwifery credential and Mexico which started an Initiative to Promote Professional Midwifery in 2015.[21,22]

The intention of this book is to be widely applicable in many different settings and to many different clinicians and support people, including nurses, midwives, physicians, doulas, and others. The differences in clinicians and their differing approaches to childbirth are reflected in the varying rates of interventions and cesarean births when labor is considered low risk. We hope that this book will offer tools for use in many different settings and situations.

NOTES ON THIS BOOK

This book is directed toward caregivers—midwives, nurses, doulas, and physicians—who want to support and protect the physiological process of labor, with the objective of avoiding complex, costly, and more risky interventions. It will also be helpful for students in midwifery, maternity nursing, and obstetrics; for childbirth educators (who can teach many of these techniques to expectant parents); and for doulas (trained labor support providers whose scope of practice includes use of many of the non-clinical techniques). The chapters are arranged chronologically according to the phases and stages of labor.

NOTE FROM THE AUTHORS ON THE USE OF GENDER-INCLUSIVE LANGUAGE

We acknowledge that pregnant and birthing people may or may not identify with the gendered terms woman/women/she/her/hers. Therefore, in this edition we include the use of gender-inclusive language and use the terms pregnant, laboring, or birthing person. This is to avoid making assumptions about those who give birth. There remain references to women and/or mothers when citing scientific literature where participants described themselves as female or the researchers identified the person as a woman or mother.

CONCLUSION

The fifth edition of this book is named to honor Penny Simkin, the original author of this book. She is a world-famous doula, childbirth educator, and author of numerous articles and books. Simkin's Labor Progress Handbook welcomes many new chapter authors and contributors who are expert midwifery clinicians, doulas, childbirth educators and/or scientists. This book focuses on prevention of labor dystocia, and a stepwise progression of interventions aimed at using the least invasive approaches that will result in safe delivery. To our knowledge, this is the first book that compiles labor progress strategies that can be used by a variety of clinicians and support people in a variety of locations. Most of the strategies described can be used for births occurring in hospitals, at home, and in free-standing birth centers.

Knowledge of appropriate early interventions may spare pregnant people from long, discouraging, or exhausting labors, reduce the need for major interventions, and contribute to safer and more satisfying outcomes. The laboring person may not even recognize the intervention done for them, but they will appreciate and always remember your attentiveness, expertise, respect, and support as they brought their child into the world. This will contribute so much to their satisfaction and positive long-term memories of their childbirths.[23] We wish you much success and fulfilment in your important work.

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