Integrating Preparation for Parenting Into Childbirth Education: Part II—A Study

Ann Corwin, Ph.D., M.Ed., LCCE

ANN CORWIN is the Parent Education Coordinator for the Orange County Child Abuse Prevention Council of the Family Resource Center in Mission Viejo, California, and Post-Partum Consultant for Saddleback Memorial Medical Center in Laguna Hills, California.

Abstract

This study was designed to test the effectiveness of using a broad conceptualization of childbirth education that includes parenting preparation in pregnancy. The goal is to assist in breaking cycles of dysfunction in families. At the core of this expanded model of childbirth education is the concept of prevention. The intervention described in Part I in the *Journal of Perinatal Education* 7(4), 26–33 provided parents with information and coping mechanisms by drawing parallels to traditionally learned coping skills for childbirth with techniques needed to cope in post-partum. This approach also encouraged prenatal parents to learn techniques for promoting attachment to their children before birth. The curriculum was tested by randomizing 48 couples to the expanded or traditional model of childbirth education. A pre- and post-Prenatal Parenting Scale was administered to both groups. Only the experimental group demonstrated improvement at the post-class administration.

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The curriculum and theoretical framework for integrating preparation for parenting into childbirth education are presented in a Part I companion article to this study (Corwin, 1998). The effectiveness of the curriculum was tested and is reported here.

In this study, parents participating in the expanded childbirth education program that includes parenting in pregnancy were hypothesized to show significantly greater increases in parenting knowledge as measured by a Prenatal Parenting Scale than did parents in a tradi-

tional childbirth education program. The content of the integrated childbirth education program was specifically designed to teach information about age-appropriate development in the first year of life through explicating parallels between labor challenges and early parenting challenges, thus giving parents the ability to generalize their labor coping skills with post-partum coping.

Theoretical Framework

On a theoretical level, the underlying assumption of this expanded approach to childbirth education is that parents are already parents in the prenatal period; that is, they should be seen as parents as soon as the child is conceived. An objective of the education then becomes communicating information to them as parents—information that will teach them how to facilitate their child's attachment behaviors.

. . . parents are already parents in the prenatal period.

Procedures

After signing a consent form, participants were randomly assigned to control and experimental groups through telephone registration at a community hospital in southern California. The Health Information Service Office at the hospital screened potential participants by asking whether each mother was a primigravida (first pregnancy). Mothers were encouraged to have a support person/partner participate with her throughout the childbirth education series although this was not mandatory.

Those with children ($n = 7$) selecting full series classes were also randomized into the intervention and control conditions. Participants were not informed of the nature of the study at the time of their random selection.

Exclusion criteria from the evaluation data analysis included the following:

1. non-English-speaking parents,
2. mothers who were on bed rest due to pre-term labor,
3. mothers who delivered early before the intervention,

4. parents who missed significant portions of the class content, and
5. parents taking the refresher or VBAC class options.

There were no exclusion criteria related to psychiatric conditions or psychological factors relevant to the pregnancy. Issues such as having been raped, the presence of personality disorders, adoption, or *in vitro* fertilization were not screened for in the perinatal period and were not disclosed before mothers began their respective classes.

Profile of Participants

A total of 48 parents in expectant parent classes were randomly assigned to either the intervention or the control groups. The intervention group contained slightly more females than the control group did (66.7% and 54.2% respectively). The age profile between the two groups was quite similar. Both groups exhibited a high level of education, with 70.8% of the intervention subjects and 66.7% of the control subjects having attained at least a 4-year college degree. More of the intervention subjects than control subjects (41.7% and 20.8% respectively) fell into the highest income category (over \$60,000 annually). Only a small number of subjects in each group (2 in the intervention group and 5 in the control group) had children prior to the childbirth education intervention. None of the above demographic differences between the groups was statistically significant when tested with the chi-square statistic. (See Table 1.)

TABLE 1 Comparison of Intervention and Control Groups on Demographic Variables

	Intervention Group N = 24	Control Group N = 24	χ^2 p Value
Female Gender	66.7%	54.2%	.555
Ethnicity—Caucasian	91.7%	83.3%	.662
College Degree	70.8%	66.7%	1.000
Income Over \$60,000	41.7%	20.8%	.120
Have Other Children	8.3%	20.8%	.413
Average Age	33.21	32.5	.35 ^(a)

(a) t-test

Prenatal Parenting Scale

Parents in both groups were given the Prenatal Parenting Scale both before and after their class series. This researcher-developed instrument was based on an in-depth review of the literature and the researcher's extensive experience in childbirth education. Initially, the researcher developed a total of 30 items. Experts reviewed items, and appropriate revisions based on their feedback were made. Subsequently, the instrument was pilot tested on a small group of parents. Their responses were used in final revisions of the instrument.

These procedures led to the creation of a questionnaire/scale with 20 items. Each item was responded to in a true/false format. (See Box 1.)

Data Processing

All data, including the pre- and post-test scores, were analyzed using the Statistical Program for the Social Sciences (SPSS). The tests involved a comparison of the two study groups. A paired comparison t-test statistic was used to assess the difference from pre-intervention to post-intervention scores for each of the study groups. The significance of each hypothesis test was evaluated against the criterion value $p < 0.05$.

Limitations

Administration of the Prenatal Parenting Scale at the beginning of the course may have sensitized both groups of parents to their need to learn about parenting. Thus, the potential for bias existed in that the test itself may be an intervention. However, this study limitation was offset to some degree by the use of random selection to the intervention and control groups, both of which completed both pre-intervention and post-intervention instruments. A limitation to generalizing the study results is that due to the small size of the group, the responsiveness of the experimental group may not have been representative of the broader population. A third possible limitation is that the parents in the intervention group might have reacted favorably to the presence of the research and the knowledge that they were receiving a "special" intervention. This would limit generalization of the findings to non-experimental conditions. A fourth limitation is the unexplored connection between the perceptions called for on the scale and the unknown context

of each parent's situation. This calls into question the ability to specify a right or wrong answer to each question.

Results

The parents in both groups did reasonably well on the pre-test, averaging 75% of the items answered correctly. The parents in the intervention group scored higher on the post-test than on the pre-test, whereas, the control group remained the same or slightly lower. Using the paired t-test, the increased scores for the members of the intervention group were shown to be statistically significant on the Prenatal Parenting Scale ($p = .01$). Thus, the study hypothesis was supported. The intervention appears to show an effect in terms of enhancing the knowledge of perinatal issues and child development. (See Table 2.)

Post-intervention responses to all 20 items were also compared between the study groups, with each difference being tested using the chi-square statistic. While responses were similar and any slight differences were non-significant on most of the 20 items, there were two items on which the intervention group showed a significantly higher correct response rate. The first of these (in the context of post-partum) was "If the coach is the only support that will be enough." While 66.7% of the intervention group subjects answered this with the correct "False" response, only 29.2 % of the control group participants answered correctly. This difference was significant ($X^2 = 5.35, p < 0.05$). The second item on which a difference was observed was "There are stages and phases that my child will go through after birth that I must be able to identify in order to be an effective parent." While 91.7% of the intervention group subjects answered this with the correct "True" response, only 58.3% of the control group participants answered correctly ($x^2 = 5.44, p < 0.05$).

TABLE 2 Change in Parenting Knowledge Scores From Pre-intervention to Post-intervention

	Pre-Intervention			Post-Intervention		
<i>Study Group</i>	<i>N</i>	<i>Mean</i>	<i>S.D.</i>	<i>Mean</i>	<i>S.D.</i>	<i>t-test</i>
Intervention	24	15.04	2.09	16.83	1.66	3.377*
Control	24	15.33	2.18	15.21	2.28	0.23

* $p < 0.01$

Box 1 Prenatal Parenting Scale

Please answer the following questions, circling a “T” for true and an “F” for false.

1. After my baby is born, I will need support.	T	F
2. If the coach is the only support, that will be enough.	T	F
3. There will be changes in my life after the child is born that I cannot anticipate.	T	F
4. There are coping techniques that I can learn in the prenatal period that will help me after the baby is born.	T	F
5. The stages and phases of labor and delivery are different for every woman.	T	F
6. There are stages and phases that my child will go through after birth that I must be able to identify in order to be an effective parent.	T	F
7. My child must separate from me in order to grow and develop.	T	F
8. The first separation from my child at birth is just as necessary as the separation from the infant at around three months.	T	F
9. The pregnancy and labor process is painful for both parents and infant, but it is pain with a purpose.	T	F
10. There are things I can do to learn about and recognize the “cues” my baby gives to me about what he/she wants.	T	F
11. If my baby gives me the “cue” of crying during the first six months and I pick him/her up, I am taking the risk of spoiling the child.	T	F
12. If my child needs to be comforted during the first few months of life, the only appropriate way is through my own individual efforts.	T	F
13. Not every child needs to have an object (other than a person) to comfort him/herself.	T	F
14. It is important for every child to grow from being dependent to being independent and eventually interdependent.	T	F
15. I should begin disciplining my baby from the time of birth.	T	F
16. My baby will be born with a certain personality, and there is nothing I can do to change that.	T	F
17. After my baby is born, my sex life with my partner will remain basically the same as it was before pregnancy.	T	F
18. After the baby is born, it is normal to be depressed.	T	F
19. I will know on my own how to recognize whether I need to help in coping with my new baby.	T	F
20. Continuing education will be needed in order to become an effective parent.	T	F

The second item on which a difference was observed was “There are stages and phases that my child will go through after birth that I must be able to identify in order to be an effective parent.”

Discussion

After the delivery of the infant, the mother must create a new or modified attachment or bond with her child. Winnicott (1965, 1986, 1987) has asserted that the process the mother goes through begins from the moment of the shock of anatomical separation from the infant. Pregnancy brings with it both conscious and unconscious fantasies of completeness and a literal fusion with the infant. These fantasies are abruptly ended with the birth; the new being, now physically detached, may produce feelings of strangeness and unfamiliarity in the mother. She may actually mourn the loss of her imaginary “perfect” infant. At the same time, she must make the adaptation to the personality of the actual infant. This adaptation may bring fears of inadequacy and concerns that in her care giving, she is somehow harming the infant (Brazelton, 1992).

At the same time, the mother must adjust to the change in her life. She wants to react appropriately to the infant—both physically and emotionally. The total dependency of the infant creates tremendous demands on the primary caregiver, generally the mother. Prenatally, the mother, already accustomed to the physical dependence of the fetus, is likely to understand intuitively that her newborn child will continue to be physically dependent. After birth, however, she discovers that the infant is dependent at all levels—emotional, psychological, and physical. When she was pregnant, she could go somewhere whenever she pleased; now, she must first attend to the needs of her child. Although the same sort of demands had existed when the infant was still *in utero*, the mother did not have to make a constant conscious effort to respond to these needs; her body did so automatically.

The intervention specifically sought to inform the parents about the many rather unsettling behaviors they might expect from their newborn infants. For example,

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newborns do not always have predictable sleeping patterns, just as labor is unpredictable, and the parents need to be prepared for this—and for the sacrifices they will necessarily have to make if they are to be nurturing and “good-enough” parents. Mothers in particular need to be prepared for the fact that they may feel exhausted, just as in transition, and that they will probably feel like the first 3 months are interminable, especially if they experience sleep deprivation. But they also need to understand that such sleep loss is associated with the infant’s normal behaviors, that the infant is not consciously causing the mother to lose sleep, and that this is a finite period that will soon end. Thus, one of the emphases of the parenthood preparation intervention is that this phase of life parallels the process of labor and childbirth. The father’s understanding of this phase may influence his willingness to provide support. It may also influence both parents’ decisions about if and when the mother should return to work.

Mothers may feel as exhausted as they did in transition, and they will probably feel as if the first 3 months are interminable.

The childbirth and prenatal parenting education intervention also taught participants the importance of reattaching with the infant in the post-partum in a manner that supports the child’s need to develop trust and security. Preparing for the psychological demands of parenting during the early days of life is one of the most important tasks for the expectant mother and her partner.

Pregnancy, childbirth, and parenting are all unknowns in that each experience is unique. As a consequence of an educational program, the parents can be much better

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prepared to cope with the stress of actual labor, delivery, and post-partum issues.

The intervention tested here also stressed “soothing” interventions to alleviate the prenatal stress of both parents and their unborn children. Participants learn to continue to use soothing techniques to calm their infants in the post-partum period. It is crucial for parents to understand that there is no guarantee such techniques alone will be effective or will achieve the goal of calming every infant. Parents need to be prepared to give the infant seemingly unending patience while being patient with themselves.

The content of the “knowledge” components of the parenting in pregnancy childbirth education intervention was heavily slanted towards basic information about child development. Many expectant parents have a woefully inadequate knowledge of normal child development and may believe many outdated and even dangerous myths. For example, parents in the class learn that infants’ behaviors are survival based and are never manipulative in the immediate post-partum phase of development. If the infant is crying, there is a reason, and the parent should respond appropriately. Parents learn the fundamental lesson that there is no fear of spoiling a child during the first 6 months of life; during this earliest phase of development, the child is driven by needs rather than by wants.

The continuity of use of the practical skills for childbirth is stressed. Relaxation exercises learned in the context of class to deal with the stress of delivery should also prove useful to the parents following birth. Parents also learn to use music as a tool for relaxation; during the pregnancy, soothing rhythms can calm both the mother and the fetus. The same methods for relaxation can be fruitfully applied during the post-partum period. For example, when a mother or her partner experiences sleep deprivation, relaxation techniques can facilitate the adult’s ability to return to sleep.

There were several specific items reflecting information that participants in the parenting in pregnancy childbirth education intervention were better able to absorb. One of these was Item #2, which stated “If the coach* is the only support, that will be enough.” (*In the context of the classes, the father or other primary support person was referred to as the “coach.”) The participants in the intervention group learned that more than one caretaker must be involved in raising a healthy child and that social support extending far beyond that of one primary support person *per se* is required. One of the goals of the childbirth education intervention was to educate participants about the dangers associated with social isolation. Human beings are not isolationists by nature, and a new parent who is socially isolated runs the risk of not being able to assess the quality of his/his own parenting. Significant others should assist new parents with caretaking, as well as providing a point of reference for the new parent seeking to self-monitor the quality of parenting and nurturing.

The second item reflecting information parents were better able to absorb was Item #6, which stated “There are stages and phases that my child will go through after birth that I must be able to identify in order to be an effective parent.” The basic premise of a traditional childbirth education curriculum is that knowledge about stages and phases of labor is necessary if the woman is to cope effectively with birth. Although the same content is taught through the integrated childbirth education curriculum, the approach is more holistic and draws a parallel between the phases and stages of labor and the subsequent post-partum experience. When the parent understands the phases and stages of development, anticipated change can be dealt with through preparation and enhanced self-efficacy. The responses suggest that prenatal parents can retain information about childbirth and early child development at least to the end of the class series. The results of this study appear to affirm that the parenting in pregnancy intervention was effective in teaching selected parenting concepts within the integrated curriculum. However, the current study did not assess any longer-term impact.

Recommendations for Implementation

Childbirth education programs should consider using a parenting in pregnancy approach in preparing expectant

parents for parenthood, together with preparing expectant parents for childbirth. Using a model that integrates both areas of perinatal education should reinforce and thus strengthen the response of both areas of instruction. If parallels between parenting and labor are taught by the childbirth educator using this integrated approach, ideally, additional class time is not necessary. Since childbirth education classes are an audience driven by the immediate necessity of an impending birth, for many, this approach may be the most effective way to disseminate parenting information. Given the importance of appropriate parenting skills in launching new families, it seems appropriate to begin in the prenatal period.

Recommendations for Research

Ideally, a longitudinal study design would be recommended. Such research should track the parents for at

least 6 months post-partum in order to observe the effectiveness of materials being taught.

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