An evaluation was made of PACE (Parent and Child Education), a family literacy program initiated in Kentucky in 1986. PACE was created because of the widespread belief that the state has a serious problem with undereducation of its adult population and the belief also that this problem is the result of persistent patterns of educational failure within particular families across generations. The PACE program was geared to providing remedial educational services to the entire family, rather than just to the children or to the adults. Services are intended to address parents' attitudes and behaviors and their effect on children's educational performance. Program services include adult basic education and parenting skills training for parents, early childhood education for children, and joint parent-child interaction and learning. The program has won an award for its innovative approach and has been replicated by an outside funding agency. Despite this success, neither the theoretical basis for the program nor the efficacy of its service model have been proven. There are outstanding questions about the effectiveness of PACE and other family literacy programs that need to be resolved before widespread replication is justified. Issues to be addressed include the following: (1) is there a causal relationship between family background and children's educational and social outcomes?; (2) will changes in family attitudes and behaviors be effective in changing children's outcomes?; and (3) can the programs be replicated in different environments? (KC)
AN EXPLANATORY MODEL
FOR
FAMILY LITERACY PROGRAMS

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This paper is the result of an evaluation of PACE (Parent and Child Education), a family literacy program initiated by the Kentucky General Assembly in 1986. PACE was created because of the widespread belief among Kentucky legislators and others that the state has a serious problem with undereducation of its adult population, and the belief that this problem is the result of persistent patterns of educational failure within particular families across generations. This set of beliefs proposes that there is a relatively large subpopulation among Kentucky adults who come from family backgrounds where educational attainment is undervalued and that this devaluation of education is a major cause of school dropout and other negative educational results (Heberle, 1988, 1989; Weiss, 1989). The implications of this view are that children in these families are at greater than average risk for eventual school failure and that remedial educational services will be most effective when they are provided to the entire family rather than just to the children or to the adults.

The PACE program was designed and implemented by the Kentucky Department of Education’s Division of Adult and Community Education as an effort to remediate these presumed causes of undereducation. Since the assumptions presuppose that the problem to be addressed is the intergenerational transmission of attitudes and behaviors, services are intended to address parents' attitudes and behaviors and their effect on children's educational performance. Program services include adult basic education and parenting skills training for parents, early childhood education for children, and joint parent-child interaction and learning (Heberle, 1988).

An extensive literature documents relationships among family educational history, family attitudes about education, childrearing practices, and the expected educational and social outcomes of children whose parents are poorly educated (Hibpshman, 1989). The PACE program’s approach is appealing because it responds to known problems on the basis of known relationships with services of known efficacy. The program has won an award for its innovative approach, and has been replicated by an outside funding agency.

Despite this appeal neither the theoretical basis for the program nor the efficacy of its service model have been proven. Family background factors known to be related to children's educational outcomes have never been demonstrated to be the cause of the outcomes (Hayes, 1989). It is conceivable that both the family factors and the children's outcomes are the result of some third factor that has not been the object of investigation. Since the presumed cause of the problem has not been proven, the services based on this presumption may not be effective even if targeted family behavior patterns are remediated. Acceptance of the PACE service model as having a priori validity requires that these causal relationships be demonstrated.

Early childhood education is a major component of PACE's service-delivery model. Early childhood services have been demonstrated to be cost-effective with disadvantaged children (Schweinhart et al., 1985). This presents a further problem for programs such as PACE that use these services as a component. Family literacy
programs of this type are too new to have collected the longitudinal data necessary for a demonstration of cost-effectiveness in their own right, and it can be argued that whatever effectiveness they might have would be due to their use of early childhood services. In the long term, such programs must demonstrate that they are more effective than simpler and less costly models that might be applied to the same problem.

Social and educational programs are often proposed and implemented based on common-sense beliefs about the causes of social problems, and these programs generally employ attractive service-delivery models. In education this sometimes results in what Robert E. Slavin has described as a “pendulum” effect where the program is implemented and rapidly expands amid high hopes for its efficacy, until disillusionment arises as evaluation studies fail to confirm the program’s assumptions (Slavin, 1989).

There are outstanding questions about the effectiveness of PACE and other family literacy programs that need to be resolved before widespread replication is justified. The current popularity of family literacy and other family support programs demands that some effort be made to justify the use of these programs in preference to other interventions. This paper is presented as an effort to describe some issues that need to be addressed if these programs are not to eventually cause the type of disillusionment that Slavin describes.

These issues can be stated as follows:

1. Is there a causal relationship between family background and children’s educational and social outcomes?

2. Regardless of the causality involved, will changes in family attitudes and behaviors be effective in changing children’s outcomes?

3. Even if services that change family factors can be shown to cause changes in children’s outcomes, can replication of particular family literacy programs in different environments by different providers result in the same effects?
An Explanatory Model of Family Influence

The first four hypotheses of the model relate to the presumed causal relationship between family factors and children’s educational achievement.

1. Negative parental attitudes and expectations about education cause children to perform poorly in school.

The general idea with this hypothesis is that a) some parents view education in a negative light; b) they communicate this viewpoint in some (not necessarily verbal or explicit) fashion to their children; c) as a result, the children adopt similar attitudes about the importance of schooling and/or fail to develop skills/behaviors necessary to good school performance; and d) this results in less than acceptable chances of success on measures of educational outcome such as graduation from high school, academic skills, etc.

From the above it is clear that a test of this hypothesis must demonstrate the following:

a) That one or more mechanisms transmit parents’ attitudes about education to their children

b) That parental attitudes about education precede and are related to children’s attitudes about education and/or educationally-related skills/behaviors when socioeconomic status and other non-education-related family factors are controlled

c) That children’s attitudes and behaviors related to education:
   1) Are relatively enduring over the school lifetime of the child
   2) Affect school performance

2. Poor parental educational role modeling causes children to perform poorly in school.

This amounts to an hypothesis about the transmission of parental attitudes to children, i.e., an element under 1.a). It presupposes that a) parental nonverbal behaviors relating to education can be identified; b) these behaviors can have an effect on children’s attitudes and behaviors; c) the children’s attitudes/behaviors precede and are related to their educational outcomes. Note that even though this hypothesis represents a mechanism for transmission of parental attitudes about education, it is not necessary for parents to verbalize negative attitudes about education.
A test of this hypothesis requires the following:

a) Identification of parental behaviors that model attitudes about education

b) A demonstration of an effect of these behaviors on children's educationally-related attitudes and behaviors such that parents who have negative behaviors are more likely to produce children who have negative educational outcomes

3. Some parental styles are more likely to produce children who perform poorly in school than are others.

PACE staff believe that in addition to parental attitudes and behaviors related to education there is a relationship between child-rearing practices generally and children's educational outcomes. A test of this hypothesis requires:

a) Identification and measurement of parental styles

b) Demonstration that the styles are related to children's educational outcomes and that:

1) The parental style preceded the child's educational performance

2) The relationship exists when socioeconomic and other irrelevant factors have been controlled

4. Children whose parents present poor educational role models will have deficiencies in learning skills in the preschool years related to later deficiencies in educational and social performance.

PACE's provision of early childhood services implies that the effect of family factors should be identifiable at age 3 or 4. This requires a demonstration that children whose parents have negative attitudes about education and/or present poor educational role models and/or have parenting styles related to children's school failure, have deficiencies at age 3 and 4 that are related to later deficiencies in educational and social performance.
A Prevention/Remediation Model

The next five hypotheses assume that the causality of H1-H4 has been demonstrated. They relate to program beliefs about the remediability of the problems resulting from family factors.

5. Positive changes in parental basic skills will improve children's school performance.

The PACE program includes an adult basic education component because of the belief that undereducation is a family phenomenon. This is derived from H2, because parental undereducation is seen as role-modeling of devaluation of education. Even if limited parental basic skills influence children's educational outcomes, there is no guarantee that remediation of the parental undereducation will result in better performance by the child. It is necessary then to test whether improvement in parental basic skills will result in improvement in children's educational outcomes. A test of this hypothesis requires demonstration of the following:

a) Improvement in children's educational outcomes related to and following improvement in parental basic skills

b) Improvement in children's educational outcomes incrementally related to the amount of parental basic skills improvement

6. Parental modeling of positive attitudes and behaviors about education will improve children's school performance.

As with H5 it is possible that demonstration of a causal relationship between parental attitudes and behaviors would not guarantee that improvements in children's performance would follow from successful treatment. Since this is an essential element of PACE rhetoric, it is necessary to demonstrate this relationship. Support for this hypothesis requires:

a) Evidence that parental attitudes and behaviors can be improved through participation in the program.

b) Evidence of an incremental relationship between the amount of change in parental attitudes/behaviors and children's outcomes

7. Positive changes in parenting skills will improve children's school performance.

This is similar conceptually to H5 and H6. It requires demonstration of the following:

a) That program services are effective in changing parenting skills
b) That there is an incremental relationship between improvement in parenting skills and children's educational outcomes

8. Services delivered to families during a critical preschool time period will have a significant long-term effect on children's school performance.

Services are delivered by the PACE program only to children aged 3 and 4 and their parents. This is as much a matter of inertia in the educational system as anything else (i.e., the public schooling process traditionally begins when children are five or six years old, and priority is given to the traditional school process once children age into it). This is no guarantee that services similar to PACE would not have desirable effects for children in other age groups. There is some evidence that family factors are related to children's outcomes well into the schooling process (Alwin & Thornton, 1984). This is particularly important given the PACE assumptions about the causal importance of family factors. This hypothesis is essential only when family literacy services are limited to preschool children and their families.

9. A combination of services provided simultaneously to parents and children will be more effective than presentation of the same services by different providers on different occasions.

This hypothesis is essential to the justification for family literacy programs like PACE that combine components widely used in other sorts of interventions. Each of the components of the PACE program is known to have some utility for the population it addresses. An essential feature of PACE is its assumption that a combination of traditional services in the adult education and early childhood service areas will produce an effect that the services could not produce separately. PACE attempts to change the effect of family patterns of undereducation by providing services to both parents and children. This requires the demonstration of an interaction effect among program services beyond the effects of specific services.

10. The model is robust.

As noted above the efficacy of early childhood intervention has been established by such programs as the Perry Preschool and Early Training projects (Achenbach, 1978; Barnett, 1985; Hoegl, 1985). Application of these services as a part of a much broader program with a different population at many sites under the sponsorship of a state educational bureaucracy adds numerous factors that could affect the outcome. For this reason it is necessary to test whether improvements in preschool learning skills on such a broad scale can result in the same type of improvement in later school and social functioning as was seen in these limited programs. This requires a demonstration that program services have the desired effect at more than chance rates across a variety of program providers and settings.
Conclusions

The rhetoric of family literacy programs predicts that certain remedial and preventive services will result in improvement in the educational and social outcomes of the children of undereducated families. These beliefs are based on a literature that shows relationships between certain family patterns and children’s social and educational outcomes. The implicit assumption is made that the relationships imply that family factors are the cause of the outcomes. Services are provided in an attempt to change the outcomes by changing the family patterns.

A detailed and intensive study of the assumptions of the PACE program produced the present paper. Detailed study of other family literacy programs might well produce additional assumptions that would generate additional hypotheses. Hence the results are not entirely generic to all family literacy programs.

The author believes however that most of the hypotheses in the above model need to be proven before family literacy programs generally can be said to have an adequate research basis, since most such programs make the assumption that family factors are the cause of children’s educational and social outcomes and that remedial services that address these factors should therefore reduce the incidence of problem outcomes.
REFERENCES


