Predicting Engagement in a Transition to Parenthood Program for Couples

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Abstract

Fostering participant engagement is a challenging but essential component of effective prevention programs. To better understand which factors influence engagement, this study examines several predictors of couple engagement in Family Foundations (FF), a preventive intervention for first-time parents shown to enhance parent mental health, couple relations, parenting quality, and child adjustment through age three years. FF consists of a series of classes delivered through childbirth education departments at local hospitals. Baseline data on socio-demographics, parent mental health, and couple relationship quality were examined as predictors of participants' level of engagement in FF (n = 89 couples, 178 individuals). Sociodemographic variables such as parent gender, socioeconomic status, and age predicted program engagement to a limited extent. However, findings indicated that marital status was the best predictor of engagement. Discussion focuses on how findings can inform the development of practices that promote engagement, such as the use of targeted outreach efforts for individuals most at risk of disengagement.

Keywords

engagement; prevention; parenting; coparenting; retention

Numerous family-focused prevention and intervention programs have been identified as efficacious in improving parenting and child well-being (e.g. Kumpfer, Molgaard, & Spoth, 1996; Reid, Webster-Stratton, & Baydar, 2004). Engaging families in such programs—especially multi-session interventions—can be a major challenge, as recruitment and retention rates are often problematically low, with 66% to 90% of the target population uninvolved (Cohen & Linton, 1995; Spoth & Redmond, 2000; Weinberger, Tublin, Ford, & Feldman, 1990). Low participation rates can lead program implementors to recruit from outside the target population and bias outcome evaluations. Addressing the challenge of engagement is especially important because poor engagement is likely to compromise intervention impact (Reid et al., 2004).

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The goal of this study is to examine several predictors of engagement in Family Foundations (FF), a preventive intervention designed to help couples manage the transition to parenthood. The identification of factors that predict engagement is important because findings can guide the development of practices that promote engagement, which may enhance program effectiveness. Further, by combining information about predictors of participant engagement with information about who is most likely to benefit from a program (i.e., moderators of program efficacy), insight can be gained into whether individual differences in engagement likely inhibit program effectiveness or reflect appropriate patterns of self-selection into and out of the intervention. This study focuses specifically on characteristics of the target population as predictors of engagement. The identification of target population characteristics that predict engagement can be particularly useful for program implementers, who can use the information to make concerted outreach efforts towards those individuals most at risk of disengagement. We organize target population characteristics into three domains that previous research indicates have predictive value for engagement in family-based programs – socio-demographics, individual mental health, and couple relationship quality (Coatsworth, Duncan, Pantin, & Szapocznik, 2006a; Kazdin, Holland, Crowley, & Breton, 1997).

Family Foundations is a universal preventive intervention for couples expecting a first baby, delivered in the non-stigmatizing context of a hospital's childbirth education department alongside or integrated into standard childbirth education classes. Results from a randomized trial found intervention effects on co-parenting, parenting, parent-child relations, child self-regulation, maternal depression and anxiety (Authorship masked, 2008Authorship masked, 2009Authorship masked, 2010). Couples attend eight interactive, skills-based classes that each last approximately two hours. Four classes occur before childbirth and four afterward. Couples also complete homework assignments between classes. As described further in Authorship masked (2008), Family Foundations is unique in that it combines couple relationship skills and parenting skills in its emphasis on the development of mutually supportive co-parenting strategies, delivered as part of hospital childbirth education classes.

Background/Literature Review

Program engagement is a multifaceted construct representing an individual's level of involvement in an intervention. Appropriate measures of engagement vary across intervention contexts. In multi-session curriculum-based interventions such as Family Foundations, three inter-related engagement indicators have been used in previous research (e.g. Hansen & Warner, 1994; Reid, et al., 2004) and are used in this study: 1) session attendance; 2) homework completion; and 3) group leader ratings of engagement during sessions.

Drawing from social exchange theory (e.g. Homans, 1974), the decision to engage or disengage (i.e., to start or stop social exchanges) depends on whether the benefits of engagement outweigh the costs. Analysis of the costs and benefits of engagement has proven to be a successful strategy in several studies (e.g. Chinman & Wandersman, 1999; Spoth, Redmond, & Shin, 2000). Understanding barriers to participation is another strategy that has been successfully used to understand engagement (Kazdin, Holland, & Crowley, 1997). Although one step removed from costs, barriers capture the same underlying process, as there is an inevitable cost associated with overcoming any barrier to participation.

The target population characteristics of interest in this study serve to make engagement in Family Foundations more or less attractive from a cost/benefit perspective. We reason that, in general, the same population characteristics that can interfere with effective parenting can also serve as a barrier to engagement in a parenting intervention. This premise is supported

by research indicating that at-risk families are generally more difficult to engage (Gross, Julion, & Fogg, 2001; Staudt, 2007). To further understand why risks for poor parenting may operate as risk factors for poor engagement, we examine the risk factors of interest, which fall into the following three categories: (1) socio-demographics, (2) individual mental health, and (3) couple relationship quality. As is further discussed in the following sections, each of these predictor categories is justified from a conceptual and empirical standpoint based on existing literature. Specific predictors within each category were selected for study because they represent important aspects of the predictor categories.

Socio-demographics—Several socio-demographic characteristics may influence both parenting and engagement, including socioeconomic status (as represented by educational attainment and income), marital status, and age. Low socioeconomic status may create stressors in the lives of families that distract from both parenting and engagement in a parenting intervention. Jobs available to individuals of low socioeconomic status may have erratic and unforgiving work schedules that can impede both parenting and engagement (Lareau, 2003). Furthermore, transportation is more likely to be a barrier among low income couples. Perhaps as a result of these factors, lower socioeconomic status predicts lower rates of engagement in family-focused interventions (Coatsworth, Duncan, Pantin, & Szapocznik, 2006b; Hansen & Warner, 1994).

Marital status may influence both parenting and engagement because married couples may be more committed to developing a family and therefore ready to engage in a parenting intervention intended to strengthen their family. Married couples are likely to have stronger relationships than unmarried cohabiting couples, with less conflict, more communication, more commitment, more relationship security, and less infidelity (Nock, 1995; Waite & Gallagher, 2000). Furthermore, married couples with children are less likely to separate than unmarried cohabiting couples with children (Bumpass & Lu, 2000). A lack of relationship commitment may serve as a barrier to engagement in a program aiming to strengthen the co-parenting relationship.

Older parents may exhibit more social-cognitive maturity (Bauer & McAdams, 2004) and be financially ready for pregnancy. Such maturity and parenting readiness may lead to higher quality parenting and enhance parenting program engagement (Hubbs-Tait et al., 2006). Previous research suggests being married and older predicts improved engagement in parenting interventions (Coatsworth et al., 2006b; Kazdin, Holland, & Crowley, 1997).

Gender may also influence engagement in parenting interventions because mothers have traditionally undertaken greater responsibility for the caretaking of children. In general, researchers have found engagement of men in family-focused interventions to be more difficult than engagement of women (Martin, 2007; Walters, Tasker, & Bichard, 2001), which may result from fathers being less invested in childrearing (Fabiano, 2007). Men may also prefer other means of help-seeking than family-focused interventions. The influence of various individual and couple characteristics on engagement may also be different for mothers and fathers.

Individual mental health—Low levels of individual mental health, as indicated by depression and anxiety can create or reflect difficulties in meeting task demands and thereby compromise effective parenting (Young, Karraker, & Cottrell, 2006). Difficulties meeting task demands may undermine the behavioral self-organization and planning needed to attend classes and complete homework. Emotional negativity and emotional dysregulation associated with depression and anxiety may also undermine motivation and positive engagement within sessions. Supporting this premise is previous research indicating that

parental depression is associated with higher levels of perceived barriers to engagement (Kazdin, Holland, Crowley, et al., 1997).

Couple relationship quality—Collaborative parenting efforts are likely to be more difficult when a couple's relationship quality is low. Considerable research on couple conflict suggests that it is associated with compromised parenting (Krishnakumar & Buehler, 2004). Furthermore, high levels of couple conflict and ineffective arguing may lead one or both partners to resist engagement in a program that involves discussion of potentially uncomfortable issues, despite the fact that the program aims to improve parenting by enhancing couple and co-parenting relationship quality. Our emphasis on couple relationship quality is supported by Perrino et al. (2001), who found that family cohesion, order/organization, and communication/shared views all predicted increased engagement in a family-based preventive intervention. The aspects of couple relationship quality that we examine – couple love and couple conflict – have not been examined as predictors of engagement in previous research to our knowledge. Thus, this study will broaden our understanding of the different aspects of couple relationships that can influence couple engagement in a parenting intervention.

The Current Study

In this study, we analyze the degree to which socio-demographics, individual well-being, and couple relationship quality predict engagement in Family Foundations. We hypothesize that the socio-demographics of older age, being married, and female gender will be positively associated with engagement. Socioeconomic indicators, such as income and educational attainment, are also hypothesized to be positively associated with engagement. Individual mental health characteristics such as anxiety and depression are hypothesized to be negative predictors of engagement. Finally, with respect to couple relationship quality, we predict that couple conflict will be negatively, and couple love will be positively associated with engagement.

Method

Participants

Participants in this study were 89 couples (178 individuals) assigned to the treatment condition in a randomized trial of Family Foundations. We analyzed participant data regardless of the extent to which parents in the treatment condition chose to engage in Family Foundations. We did not examine participants in the control condition because they did not have the opportunity to engage in Family Foundations. To be included in the study and have the opportunity to enroll in Family Foundations, couples had to be expecting their first child, living together, heterosexual, and 18 or older at the time of recruitment. We limited the randomized trial to couples living together in order to require a high level of couple commitment to one another and to co-parenting. We thought the increased commitment would make the target population more similar, more likely to fully engage in the classes, and more stable and available for posttest.

Childbirth education centers in two hospitals located in small cities recruited 81% of the participants. Childbirth education centers recruited couples by first mailing a letter and then calling couples on the phone. Twenty-three percent of the couples called agreed to participate in the randomized trial. Reasons for not participating include a lack of time, scheduling conflicts, and a lack of perceived need for the intervention. Other participants were recruited from doctor's offices (8%), newspaper advertising or flyers (7%), word of mouth (3%), or other means (1%). Recruitment through these means was self-initiated by participants, who either returned a postcard or called a phone number to enroll in the study.

The majority of participants (82%) were married. With respect to race and ethnicity, 91% of participants were White, 6% were Black, 1% were Hispanic, and 2% were mixed race/ethnicity or other. Annual family income ranged from $2,500 to $162,500, with a median of $67,500. Educational attainment ranged from the completion of 9th grade to beyond college, with a mean of 2.7 years of post-secondary education. The average participant was 29 years old, with a range from 18 to 41. The sample demographics are generally representative of the local population served by the hospitals who recruited participants.

Procedure

Baseline data on the predictors of engagement were collected during home visits from couples before random assignment occurred. Data on session attendance, group leader ratings of engagement, and homework completion were collected during implementation of the Family Foundations classes. Family Foundations is a manualized intervention. Each group has a male and a female leader. Each female group leader was a childbirth educator and nurse. Male group leaders were experienced in working with families and leading groups, and included mental health and community service professionals. All group leaders underwent three days of training and received ongoing feedback from supervisors who observed some of the sessions. Observer ratings from supervisors indicated that the intervention was implemented as intended, with an average of 95% of the curriculum content covered (Authorship masked, 2008). Classes contained only study participants, with an average group size of nine couples. Couples participated in the prenatal sessions while mothers were in their second or third trimester. Couples participated in the postnatal sessions when the baby was an average of 5 months old. Couples were offered free childcare during all postnatal sessions. If couples missed a session, group leaders typically called the family to check-in and problem-solve any barriers.

Measures

Table 1 lists the mean and standard deviation of study variables, and Table 2 lists the correlations between all variables separately for males and females. The amount of missing data was low, ranging from 0% to 3%. Demographic predictor variables, including gender, marital status, age, income, and educational attainment were measured with a single question capturing each variable.

We measured depression using an abbreviated version of the Center for Epidemiological Studies Depression Scale (CES-D), which was developed to measure depression in the general population (Radloff, 1977). The 7 items selected for use in this study were based on previous research indicating that they had the highest item-to-total score correlations and accounted for over 90% of the variance in the total score (Howe, Levy, & Caplan, 1999; alpha for this sample was .81). Anxiety was measured using the 20-item short form of the Taylor Manifest Anxiety Scale, which measures chronic anxiety (Bendig, 1956; alpha for this sample was .73).

Couple love and conflict were measured using the relationships questionnaire, which consists of 14 items designed to measure these two constructs (Braiker & Kelley, 1979). The love scale consists of nine items that inquire about the extent to which respondents have a loving, giving, committed, intimate, and cohesive relationship with their partner (alpha for this sample was .84). The conflict scale consists of five items which asks respondents to report on the degree to which they experience different aspects of conflict in their relationship (alpha for this sample was .74). Measurement validity of the relationships questionnaire is supported by previous research indicating the scales are sensitive across the transition to parenthood, a time when couple relationships are widely reported to decline in quality (Belsky, Lang, & Rovine, 1985).

Engagement in Family Foundations was measured with three separate indicators – session attendance, group leader ratings of engagement, and homework completion. Group leaders took attendance at each of the eight classes and the attendance variable represents the number of classes attended. Group leaders also rated participants on the degree to which they were actively engaged in the classes using a four-item measure. The items were (1) The participant appeared interested in the material; (2) The participant was actively engaged with his/her partner during the couple exercises; (3) The participant spoke up during group discussions; and (4) The participant was resistant to you or the material (that is, did he/she challenge or disagree with what group leaders said). The last item was reverse scored. Group leaders rated each participant after the first four sessions and again after the last four sessions. Homework completion was measured using self-report from participants, who answered yes/no questions about whether they completed each of the 14 homework assignments.

Analyses

To account for the nesting of individuals within couples, multilevel regression models were used to examine the relation between predictor variables and engagement in Family Foundations. The relation between each of the nine predictor variables and the three indicators of engagement were examined separately, leading to 27 separate regression analyses, which are reported in Table 3. In order to explore differences in engagement during the four prenatal sessions and the four postnatal sessions without an overwhelming number of analyses, we created a composite term representing overall engagement, which is the average standardized value of attendance, homework completion, and group leader ratings of engagement (alpha = .94). We then regressed overall engagement, prenatal engagement, and postnatal engagement on predictors that had a significant main effect on one or more of the individual indicators of engagement.

Participant gender was used as a control variable in all regression models. We also tested gender by predictor interactions to determine whether predictor variables relate to engagement differently for mothers and fathers. These interaction terms were dropped from the regression model if they were not significant (Aiken & West, 1991). To provide standardized estimates that ease interpretation of the regression models, all continuous predictor variables were standardized. Group leader ratings of engagement and overall engagement were also standardized.

Results

As is further detailed in Table 1, Family Foundations participants attended an average of 5.4 classes (out of 8), completed an average of 7.5 homework assignments (out of 14), and received an average rating of 3.6 from group leaders for their level of engagement, with 3 representing sometimes and 4 representing usually engaged. Multilevel regression models predicting difference scores between prenatal and postnatal engagement identified significantly higher levels of prenatal engagement. Specifically, in comparison with postnatal engagement, parents attended .98 more prenatal classes, scored .70 higher on the prenatal group leader rating of engagement, and completed 28% more of the assigned homework prenatally. The following four sections report findings from the multilevel regression models used to predict each of the four outcomes of interest: attendance, group leader ratings of engagement, homework completion, and overall engagement (prenatal and postnatal).

Predicting Class Attendance

As illustrated by Table 3, most predictor variables were not significantly related to attendance. Parent gender was significant, with mothers estimated to attend 0.16 more classes than fathers. Marital status was the best predictor of attendance, with married couples estimated to attend 3.1 more classes than unmarried couples. There was also a significant gender by marital status interaction, indicating that married men were approximately as likely as married women to attend classes, whereas unmarried men were likely to attend 0.50 fewer classes than unmarried women. Anxiety had a small but significant negative influence on attendance. A one standard deviation increase in anxiety predicted attendance in 0.13 fewer classes.

Predicting Group Leader Ratings of Engagement

Table 3 presents the results of multilevel models predicting standardized group leader ratings of engagement. The following results were significant: Being a woman predicted a .10 standard deviation increase in group leader rating of engagement. Indicators of socioeconomic status also predicted higher ratings of engagement. A one standard deviation increase in educational attainment (2 additional years of education) predicted a .09 standard deviation increase in engagement ratings and a one standard deviation increase in income ($35,028) predicted a .26 standard deviation increase in engagement ratings. There was also a significant income by gender interaction; the effect of income was .09 standard deviation units smaller for women.

Marital status was the strongest predictor of group leader rating of engagement. Being married predicted a 1.5 standard deviation increase in ratings of engagement. A significant marital status by gender interaction indicated that this effect was 0.27 standard deviation units weaker for married women. A one standard deviation unit increase in age (5 years) predicted a 0.12 standard deviation unit increase in group leader ratings of engagement. There was a significant age by gender interaction indicating this effect was .08 standard deviation units smaller for women.

In the domain of couple relationship quality, the main effects for couple love and couple conflict were not significant. However, there was a significant gender by conflict interaction indicating that for women, a one standard deviation increase in conflict predicted a .09 standard deviation increase in group leader ratings of engagement. No indicators of individual mental health predicted group leader ratings of engagement.

Predicting Homework Completion

Of the three engagement indicators, homework completion was the most poorly predicted, as is illustrated in Table 3. Parent gender, socioeconomic status, individual mental health and couple relationship quality were not significant. Marital status was the only variable predictive of homework completion. Married couples were predicted to complete 4.8 more homework assignments than unmarried couples.

Predicting Overall, Prenatal and Postnatal Engagement

Depression, couple love, and couple conflict were excluded from analyses predicting overall engagement because they did not have a significant main effect on attendance, homework completion or group leader ratings of engagement. Table 4 presents the results of multilevel models predicting overall engagement across all sessions. Gender and marital status were the only predictor variables with significant main effects. Being a woman predicted a .08 standard deviation increase in overall engagement. Being married predicted a 1.3 standard deviation increase in overall engagement. A significant marital status by gender interaction indicated that the effect of marital status was 0.18 standard deviation units weaker for

married women as compared to married men. Gender interactions indicate that age and income are better predictors of engagement for men than they are for women.

Table 4 also presents findings from models predicting overall engagement separately for the first half of FF, which occurred before the child's birth and the second half, which occurred after birth. Marital status is the only variable that is a significant predictor of both prenatal and postnatal engagement. Being married predicted a 1.4 standard deviation unit increase in prenatal engagement and a 1.1 standard deviation unit increase in postnatal engagement. Age is only significant prenatally, with a 5 year increase in age predicting a .09 standard deviation unit increase in prenatal engagement. Socioeconomic status, as measured by education and income, predicts significantly more postnatal engagement, with beta weights of .10 and .20 respectively. Gender interactions with marital status, age, and income are significant postnatally but not prenatally, indicating the influence of marital status, age, and income are stronger for men than women. Anxiety did not significantly predict prenatal or postnatal engagement.

Predictive Power of Marital Status

To examine the predictive power of marital status as a proxy for high or low engagement, we first classified participants with below average overall engagement scores into a low engagement group and participants with above average overall engagement scores into a high engagement group. Among unmarried individuals, 75% were in the low engagement group and 25% were in the high engagement group. Among married individuals, 31% were in the low engagement group and 69% were in the high engagement group.

Discussion

This study examined predictors of participant engagement in a transition to parenthood health promotion program, both replicating some findings and generating new insight into how individual and couple characteristics relate to engagement in family-focused programs. Marital status was the strongest predictor of engagement, with married couples attending 3.1 more classes, completing 4.8 more homework assignments, and receiving group leader ratings of engagement that are 1.5 standard deviations higher than their unmarried counterparts. There are several potential explanations for why being married is a powerful predictor of engagement in Family Foundations. First, marital status may be a marker for individual characteristics that influence participation and engagement. Cohabitating couples with children tend to be younger, less educated, have lower incomes, and poorer health than married couples (Osborne, McLanahan, & Brooks-Gunn, 2004). Although we included several individual characteristics in this study, there may be unmeasured individual characteristics that mediate the effect of marital status on engagement.

Second, Family Foundations focuses on improving parenting by enhancing couple and co-parenting relationship quality. Being married is an important indicator of commitment to maintaining a strong relationship (Nock, 1995). Committed couples who are family oriented may be more interested in an intervention intended to help them work together as a team to build a strong family. Just as Family Foundations' emphasis on co-parenting may entice committed couples, it may deter the investment of couples who are unsure of the extent to which they want to collaboratively co-parent in the future.

Results for other demographic predictors, including parent gender, age, educational attainment, and income were partially consistent with study hypotheses. The effect sizes for gender are small but significant, suggesting that mothers are generally more motivated to engage in Family Foundations, which may be due to the traditional female emphasis on parenting. It is interesting to note that older age predicted increases in prenatal but not

postnatal engagement. It may be that older expecting parents feel more ready to take on the parenting role, and thus (ironically) more willing to engage in efforts to prepare for this role. Younger parents may still have a greater sense of personal invincibility that some have noted in adolescents, which leads to greater risk taking and perhaps less concern with preparing for challenges (Wickman, Greenberg, & Boren, 2010). In any case, it would appear that enhanced efforts to engage younger couples may be worthwhile. Age is no longer a factor during the postnatal classes, which may be due to the leveling experiencing of being a parent. That is, both younger and older parents are exposed to the challenges of parenting and coparenting for several months before the postnatal sessions begin, and this experience may overcome any sense of invincibility among younger participants.

In the postnatal classes, higher levels of income and education both predict higher levels of overall engagement. It may be that the resources among higher income and educated parents allow for a greater engagement in the program, whereas the greater degree of daily stress experienced by those with fewer resources serves as an obstacle and distraction to greater engagement. At a concrete level, for example, lower income families likely experience greater economic pressures, may have a less stable housing situation, and may have less control over work hours—all contributing to difficulties in simply attending sessions. It may be that these higher levels of stress, in combination with the strains of early parenthood, combine to reduce engagement among such couples in the postnatal period. In any case, findings indicate that lower educated and lower income couples may need additional support to engage in parenting programs after birth at a high level.

Results also indicated that age, income, and marriage were stronger predictors of engagement for men than for women, suggesting that men's program engagement may be more sensitive to fluctuations in status than women. Women's engagement, which is higher than men's, may be also be more stable because it reflects a typically high level of concern about childrearing. Men, on the other hand, have a less scripted parental role with a greater likelihood of seeing themselves as playing a supporting role; thus lower levels of commitment among younger, less well off, and unmarried men may play a role in determining program engagement (Authorship masked, 2003). However, younger, less well off, and unmarried women may have a similarly high level of commitment to parenting and family life as their older, more well off, and married counterparts.

Counter to study hypotheses, individual mental health and couple relationship quality were generally not predictive of engagement. Anxiety was a significant predictor of attendance but its effect size was small and it did not significantly predict homework completion, group leader ratings of engagement, or overall engagement. The utility of individual mental health and couple relationship quality as predictors of engagement in couple-oriented parenting interventions may be limited. However, such predictors may be more important in other programs or with different populations. Future research efforts should further clarify if and when mental health and couple relationship quality are important predictors of engagement.

Strengths, Limitations, and Future Research

This study is the first to examine engagement in Family Foundations, a unique universal preventive intervention that has demonstrated a positive impact on co-parenting, parenting, couple relationship quality, maternal depression and anxiety, and child self-regulation (Authorship masked, 2008Authorship masked, 2009Authorship masked, 2010). Methodological strengths include the measurement of predictor variables before the intervention started and the use of multiple indicators of engagement as reported by both participants and group leaders. This study is also the first to investigate the utility of couple love and couple conflict in predicting engagement.

One limitation is that a self-selection bias may have reduced the influence of individual and couple level factors because recruited participants were initially willing to participate both in a class series and home-based research visits. Another limitation of this study is that we do not have a direct measure of relationship commitment and instead rely on marital status as a proxy for commitment. Marital status may reflect not only psychological commitment but also social, behavioral, financial, and legal commitments. Future research should examine how different aspects of relationship commitment relate to intervention engagement.

Although our use of multiple measures of engagement is a methodological strength, there remains substantial room for improvement in the measurement of engagement. Our use of self-reported homework completion may be unreliable. Having group facilitators keep track of homework completion may improve measurement. Further, more fine-grained distinctions about the quality of the couple's efforts in completing the homework may provide a more sensitive measure of homework completion.

The large number of analyses and relatively small magnitude of several engagement predictors prevents us from ruling out the possibility that some of the findings are false positives reflective of Type I error. Aside from marital status, most significant findings are close to the $p < .05$ significance level and may be spurious. The small effect size of findings that are close to the $p = .05$ significance level cutoff further limits their utility in guiding practice.

Lessons Learned for Practice

Practitioners interested in maximizing engagement can use the predictors of engagement to target their engagement efforts towards individuals most at risk of disengagement. Marital status stands out as the best predictor of engagement. Practitioners interested in increasing engagement among unmarried couples can employ several different strategies. Motivational interviewing is one popular evidence-based strategy for enhancing treatment engagement that practitioners can use before the intervention begins (Lundahl & Burke, 2009). Targeted outreach efforts by group leaders can also help to improve engagement by enhancing the group leader-parent relationship. Phone calls, mail, and email reminders about upcoming meetings can help to improve attendance by communicating concern for parents' attendance and helping to update parents on what they missed. Follow-up phone calls after missed sessions can also serve as an opportunity for group leaders to figure out why parents are missing classes and what they may be able to do to help parents overcome participation difficulties (Snell-Johns, Mendez, & Smith, 2004).

Although these engagement strategies require substantial time and effort, they may be more practical to implement when targeted towards unmarried couples who are at high risk of disengagement. Results indicate marital status serves as a reasonable proxy for low engagement, as 75% of unmarried individuals had below average levels of engagement. However, 31% of married individuals also had below average levels of engagement. Thus, engagement efforts that only target unmarried individuals will not reach a substantial portion of the population with low engagement.

Given that unmarried, younger, low SES couples (especially males) were less likely to engage in the parenting program under study, the question arises as to whether actions should be taken to encourage participation by these couples. Self-selection towards disengagement may be appropriate if an intervention is less helpful for the subpopulation that does not engage. However, in this case, previous research indicates that Family Foundations is more effective for less educated parents and equally effective for high and low income couples (Authorship masked, 2008). Thus, efforts to promote engagement among low SES couples appear warranted. To engage low-SES parents into interventions, it

may help to have group leaders who have low-SES backgrounds or live in the same community as participants (Dumas et al., 2008). Revisions in program material and delivery may also be helpful. For example, emphasizing the benefits of effective co-parenting for the child may be an effective strategy for engaging unwed mothers and fathers, who may be less committed to their partner but nevertheless committed to their children (Dion & Strong, 2004).

At some point along a continuum of age and relationship commitment, quite different program designs may be needed. Home-based and self-directed interventions may be more effective for parents unwilling to attend group sessions (Snell-Johns, et al., 2004). Further research is needed to better understand which parenting programs and delivery mechanisms are best suited for engaging different parents.

Acknowledgments

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Highlights

- This study examines several predictors of couple engagement in a parenting program called Family Foundations.

- Martial status was the best predictor of engagement.

- Parent gender, socioeconomic status, and age predicted program engagement to a limited extent.

- Practitioners may want to target time-intensive engagement efforts towards individuals most at risk of disengagement.

Table 1

Means and standard deviations of study variables for mothers and fathers.

	Mother		Father	
Variable	**Mean**	**SD**	**Mean**	**SD**
Demographics:				
Marital status	82% married		82% married	
Age	28.71	4.61	29.96	5.20
Education[1]	14.98	1.75	14.43	2.17
Income[2]	$67,500	$36,152	$72,500	$34,012
Individual well-being:				
Behavior problems	0.43	0.82	1.15	1.44
Anxiety	7.35	3.45	5.86	3.82
Depression	0.47	0.50	0.26	0.34
Couple relationship quality:				
Love	74.25	5.51	72.25	6.96
Conflict	18.70	7.27	16.75	6.51
Ineffective arguing	17.66	5.81	18.20	5.78
Engagement				
Attendance[3]	5.52	2.44	5.36	2.49
Leader ratings of engagement	3.64	1.09	3.53	1.11
Homework completion[4]	7.61	4.99	7.34	5.00

[1] Years of school completed, starting with the 1st grade.

[2] Median family income, as report by males and females separately.

[3] There were a total of eight sessions.

[4] There were 14 homework assignments.

Table 2

Correlations between all variables studied for fathers (below diagonal) and mothers (above diagonal), with mother-father correlations on the diagonal.

Variable name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) Marital status	1.00*	.52*	.50*	.48*	-.36*	.01	-.24*	.24*	-.16	-.09	.43*	.48*	.36*	.45*
(2) Age	.45*	.82*	.41*	.55*	-.35*	-.01	-.06	.03	-.18†	-.20†	.10	.22*	.05	.13
(3) Education	.55*	.39*	.70*	.59*	-.46*	-.20†	-.26*	.06	-.12	-.14	.23*	.27*	.14	.23*
(4) Income	.46*	.51*	.60*	.98*	-.27*	-.06	-.17	.03	-.06	-.10	.15	.23*	.10	.17
(5) Behavior problems	-.42*	-.19†	-.37*	-.27*	.31*	.07	.27*	.02	.20†	.10	-.24*	-.23*	-.29*	-.27*
(6) Anxiety	-.18†	-.16	-.31*	-.17	.21†	-.03	.50*	-.32*	.38*	.39*	-.11	-.04	-.09	-.08
(7) Depression	-.19†	-.19†	-.28*	-.24*	.39*	.53*	.07	-.16	.44*	.40*	-.13	-.09	-.15	-.13
(8) Love	.13	.09	.01	-.09	.11	-.17	-.20†	.53*	-.45*	-.41*	.22*	.13	.23*	.20†
(9) Conflict	-.22*	-.13	-.15	-.13	.11	.21*	.26*	-.37*	.49*	.63*	-.04	.01	-.07	-.04
(10) Ineffective arguing	-.14	-.22*	-.16	-.14	.16	.10	.28*	-.38*	.58*	.62*	-.03	-.02	-.01	-.02
(11) Attendance	.48*	.11	.31*	.14	-.33*	-.18†	-.15	.05	-.14	-.04	.96*	.90*	.86*	.98*
(12) Leader ratings of engagement	.58*	.24*	.40*	.29*	-.37*	-.16	-.12	-.01	-.17	-.06	.96*	.95*	.74*	.93*
(13) Homework	.39*	.13	.30*	.14	-.30*	-.17	-.16	.04	-.09	-.02	.85*	.76*	.86*	.92*
(14) Overall Engagement	.51*	.17	.35*	.20†	-.36*	-.18†	-.15	.03	-.14	-.04	.97*	.94*	.92*	.95*

Note:

† $p < .10$;

* $p < .05$;

Table 3

Results from multilevel models predicting number of classes attended, group leader ratings of engagement, and number of homework assignments completed.

Predictor variable	Attendance		Group leader ratings		Homework completion	
	Est.	S.E.	Est.	S.E.	Est.	S.E.
Parent gender only	.157*	.076	.104**	.034	.295	.283
Demographics:						
Marital status	3.11***	.609	1.50***	.214	4.81***	1.23
Gender interaction	−.418*	.195	−.274***	.083	.307	.354
Age	.092	.116	.119*	.049		
Gender interaction			−.081*	.035		
Education	.162	.092	.086*	.040	.481	.303
Income	.342	.210	.260**	.089	.342	.483
Gender interaction			−.086*	.035		
Individual well-being:						
Anxiety	−.132*	.053	−.032	.024	−.212	.198
Depression	−.002	.058	.023	.025	−.051	.206
Couple relationship quality:						
Love	.059	.077	.034	.034	.473	.261
Conflict	−.022	.076	−.015	.040	−.079	.260
Gender interaction			.091*	.039		

Note: Father = 0; Mother = 1; Unmarried = 0; Married = 1; All models include both gender and the listed predictor. Gender interactions are only kept in the model if they are significant.

*
p < .05;

**
p < .01;

***
p < .001

Table 4

Results from multilevel models predicting overall engagement across all sessions, during prenatal sessions only, and during postnatal sessions only.

Predictor variable	Pre & Post Natal		Pre-Natal		Post-Natal	
	Est.	S.E.	Est.	S.E.	Est.	S.E.
Parent gender only	0.078*	0.033	0.031	0.023	0.090*	0.041
Demographics:						
Marital status	1.336***	0.244	1.361***	0.235	1.075***	0.259
Gender interaction	−0.183*	0.084			−0.256*	0.104
Age	0.082	0.048	0.092*	0.035	0.060	0.058
Gender interaction	−0.085*	0.034			−0.098*	0.043
Education	0.070	0.040	0.010	0.028	0.097*	0.048
Income	0.164	0.091	0.098	0.074	0.202*	0.097
Gender interaction	−0.074*	0.035			−0.094*	0.043
Individual well-being:						
Anxiety	−0.040	0.023	−0.020	0.016	−0.047	0.029

Note: Father = 0; Mother = 1; Unmarried = 0; Married = 1; All models include both gender and the listed predictor. Gender interactions are only kept in the model if they are significant.

*
p < .05;

**
p < .01;

***
p < .001