ORIGINAL ARTICLE

Predictors of Premature Match Closure in Youth Mentoring Relationships

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Highlights

- Adolescent mentees are at extremely high risk for premature match closure.
- Family risk factors are strongly associated with early termination of mentoring relationships.
- Engaging in risky health behaviors strongly predicts premature match closure.
- Cumulative mentee risk significantly predicts premature match closure.
- Mentoring program practices can prepare and support mentors to work with high-risk youth.

Abstract Although mentoring is a popular and effective means of intervention with youth, the positive effects of mentoring can be diminished by premature match closure of relationships. Program, mentor, and mentee characteristics were examined as predictors of premature match closure. Secondary data analyses were conducted on a large national database of mentoring programs consisting of match and youth risk information from 170 mentoring programs and 6468 matches from across the U.S. Premature closure was associated with mentee age at match inception and 19 individual mentee characteristics. The set of mentee characteristics were examined as part of a cumulative risk index encompassing seven conceptually combined categories including family background characteristics, school functioning problems, engagement in risky health behaviors, self-regulation difficulties, engagement in illegal or criminal activities, and internalizing and externalizing behavior problems. Both the age of mentees when matched and the cumulative risk index score significantly predicted premature closure. Results are discussed in terms of directions for future research and suggestions for enhancing mentoring program practices.

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Introduction

Youth mentoring programs hold significant promise for promoting positive youth outcomes (Rhodes & Lowe, 2009). However, the benefits of such programs depend, in part, on the duration of the relationships that are forged between mentors and youth (Grossman, Chan, Schwartz & Rhodes, 2012; Grossman & Rhodes, 2002; Parra, DuBois, Neville, Pugh-Lilly & Povinelli, 2002). The current study was designed to identify factors that may place matches at risk for earlier than expected termination.

Youth mentoring programs involve pairing children or adolescents with adults, typically, volunteers, who are trained to provide friendship and support to mentees as well as be a positive role model and nurturer of mentees' interests, skills, and hobbies. Although such programs are widespread, research on their effectiveness has revealed modest effect sizes and considerable room for improvement (DuBois, Portillo, Rhodes, Silverthorn, & Valentine, 2011; Gutman & Schoon, 2015). Match length has been demonstrated to be a key factor accounting for variability in both community-based and school-based mentoring program effects. In fact, because duration tends to imply close relationships and strong programs, match length is considered one of best benchmarks of overall program effectiveness (Grossman & Johnson, 1999). In re-analyses of data from random assignment studies of the Big Brothers Big Sisters (BBBS) mentoring programs, Grossman and colleagues (Grossman & Rhodes, 2002; Grossman et al., 2012) found that the effects of mentoring on youth outcomes become progressively stronger with match length. Recent analyses of community-based mentoring

programs in Canada have highlighted the associations between higher quality matches and greater levels of positive youth development (strengths and skills in youth), a relationship that only emerged for long-lasting matches (Erdem, DuBois, Larose, De Wit & Lipman, 2016). Other investigations have also highlighted the importance of match length and consistency, as well as the negative consequences of early termination (DuBois, Holloway, Valentine & Cooper, 2002; Karcher, 2005; Spencer, 2006). Thus, match length is a universal characteristic endemic to all mentoring relationships that can serve as a litmus test for the effectiveness of the match.

Poorer Youth Outcomes Associated with Premature Closure

Mentoring relationships that end abruptly or where the ending is unexpected and unplanned can do more harm than good (Grossman & Rhodes, 2002; Herrera et al., 2007). For example, premature match closure can result in negative youth outcomes such as mentees feeling abandoned or disappointed (Karcher, 2005; Spencer, 2007). Experiencing premature closure in a mentoring relationship may evoke or reinforce negative feelings about relationships or self-critical thoughts, and decrease optimism for experiencing positive relationships in the future (Spencer & Basualdo-Delmonico, 2014).

Prevalence of Premature Closure

Premature relationship termination is not a rare occurrence; in fact, some studies report that more than half of mentoring relationships end prematurely (Bernstein, Dun Rappaport, Olsho, Hunt & Levin, 2009; Grossman & Rhodes, 2002) with most ending within a few months of starting (Styles & Morrow, 1992). A more recent analysis of 20 Canadian BBBS agencies reported a premature closure rate of 34% (DeWit et al., 2016). Despite the high rates of closure reported in individual studies, rates have not been examined in large samples across a diverse array of mentoring programs. Thus, the first major goal of the present study was to examine the overall rate of premature early match closure.

Predictors of Premature Closure

Despite the importance of the longevity of mentoring relationships, few empirical studies have explored a comprehensive set of factors that predict premature closure. A second goal of this study was to examine broad sets of predictors of premature closure related to the characteristics of the mentoring program, the mentor, and the mentee.

Program Characteristics and Premature Closure

Mentoring relationships occur in a wide array of locations such as workplaces, schools, and neighborhoods (MENTOR/National Mentoring Partnership, 2015). These settings also attract different types of mentors and mentees. For example, mentors in school-based mentoring programs tend to be more demographically diverse than mentors in community-based mentoring programs (Herrera, Sipe & McClanahan, 2000). School-based mentoring programs may attract a broader population of volunteers due to requiring shorter time commitments both in terms of match length (e.g., a school vs. calendar year) and match meetings (e.g., 1 hour during the school day or afterschool vs. longer meetings at night or on the weekends), compared to community-based mentoring programs. These reduced requirements may limit some of the positive effects of mentoring (Bernstein et al., 2009); however, by providing greater specifications to match members about the match location, activities, and timeframe, more structured mentoring programs may have relatively fewer unanticipated closures than less structured programs (Anderson et al., 2006; Cavell & Hughes, 2000).

Formal mentoring relationships can also take shape in many forms, including traditional one-to-one mentoring, group mentoring, and e-mentoring (a relatively new style of mentoring that allows mentors and mentees to communicate virtually instead of or supplementing in-person meetings) (MENTOR/National Mentoring Partnership, 2015). Within each format, the effect of the format of mentoring on relationship quality, efficacy, longevity, and personal and cultural preferences differ. For example, one-to-one mentoring relationships may differ from group mentoring in ways that affect relationship quality (Hansen, Romens & LaFleur, 2011), the number of youth participants (Kuperminc & Thomason, 2014) and the experiences of youth (Herrera, Vang & Gale, 2002). Mentoring programs also vary in their expectations regarding the minimum length of mentoring relationships, however, purposefully time-limited (i.e., 10–20 weeks) programs have reported relatively fewer premature closures (Anderson et al., 2006; Cavell & Hughes, 2000) than longer lasting programs.

Mentor Characteristics and Premature Closure

Rates of closure may vary as a function of mentor sex, age, occupation, race, and ethnicity; all of which influence the mentoring relationship. Mentor volunteers who feel overwhelmed, burnt out, or unappreciated, have matches that close at a more frequent rate (Styles & Morrow, 1992). These feelings have been cited for younger mentors (18–25 years old), newly married mentors in the 26–30-year-old

age range, and mentors who have a lower income (Grossman & Rhodes, 2002).

Mentee Characteristics and Premature Closure

Mentee characteristics may be associated with increased risk for premature closure. DeWit et al. (2016) reported that youth who were extrinsically motivated to join a mentoring relationship experienced higher rates of early match closures than youth who were intrinsically motivated. In addition, they reported that girls and youth with behavior problems experienced more premature closures, but youth with strong parental emotional support, social support, and high-quality relationships were less likely to close early. Grossman and Rhodes (2002) examined several predictors of early termination and found early closure for adolescents, female mentees, and youth in racial or ethnic minority groups. Also, mentees who engaged in risky health behaviors, such as substance abuse or sexual behavior resulting in adolescent pregnancy, had educational problems such as low grades and more school absences, or had a history of complex mental health problems or abuse exposure had increased premature closure rates. Consistent with these findings, mentee risk factors have been found to be associated with relationship dysfunction in mentoring relationships (Johnson & Huwe, 2002).

In addition, youth in special populations such as immigrant youth, children of prisoners, youth in foster care, youth involved in the juvenile justice system, and youth who have dropped out of school have special needs which may pose challenges to relationship development (Madia & Lutz, 2004; Spencer, 2006). Poorly attached youth, or youth with significant disruptions in their attachments to primary caregivers (e.g., children of prisoners, children in foster care) may find it difficult to engage in mentoring relationships; consequently, these relationships are at higher risk than relationships with youth who are not a member of one of these populations (Spencer & Basualdo-Delmonico, 2014). In addition, negative outcomes associated with premature termination are expected to be exceptionally damaging for immigrant youth, since they face unique challenges such as stress related to poverty, discrimination, and family separation (MENTOR/National Mentoring Partnership, 2009). In fact, those who are already struggling with losses of family members during the migration process are particularly at risk (Suarez-Orozco & Suarez-Orozco, 2001).

Models of Risk

The stress and coping literature suggests several causal models that can be applied to understanding how risk may negatively affect outcomes (Johnson, 1988; Lin & Ensel, 1989). One model suggests that a single experience of a specific stressor will lead to a later negative consequence. This individual risk factor model has already been established within the mentoring literature for prediction of premature closure in that several studies cited above have reported that a wide array of individual risk factors are significant predictors of match length.

A second model suggests that the presence of co-occurring risk factors (e.g., behavioral problems, social stressors, family background characteristics) is related to a range of negative behavioral, emotional, and academic outcomes in youth (Appleyard, Egeland, Dulmen & Alan Sroufe, 2005; Kupersmidt, Burchinal & Patterson, 1995). According to this cumulative risk model, as each risk factor accumulates, relationship longevity may become increasingly difficult to sustain. In other words, risk would accumulate additively in a linear fashion such that low risk exposure would be associated with the most positive outcomes and high risk exposure would be associated with the worst outcomes. For example, in a study of 1310 youth, Herrera, DuBois and Grossman (2013), noted that mentors who were paired with more risk-exposed youth reported more challenges within the match, such as more frequent cancellations by the youth, difficulty managing youth behavioral problems, and greater needs for program staff support. Also, qualitative interviews with mentors who ended their relationships prematurely suggested that they felt overwhelmed by the stressful home lives of mentees (Spencer, 2007).

A third model suggests a curvilinear relationship between risk and outcomes. For example, both low and high levels of risk would be associated with negative outcomes, whereas moderate levels of risk would be least problematic. Consistent with the curvilinear model, Schwartz et al. (2011) found that youth who, at baseline, exhibited both lower and higher interpersonal risk, tended to have shorter matches, whereas youth with moderate levels of relationship risk had the most positive outcomes. Similarly, DuBois et al. (2011) reported in a meta-analysis of youth mentoring programs that the effects of mentoring were weaker for programs who served youth who had low levels of individual and environmental risk as well as youth who had high levels of both types of risk. Findings from these two studies suggest that moderate risk exposure may be optimal for producing positive mentoring outcomes. Thus, the final goal of the study is to examine the individual and linear and quadratic cumulative risk models as predictors of premature closure in youth mentoring relationships.

Method

Participants

Information related to match closure was available from 8953 matches in the MentorPro national database from

Programs reported only the presence of a risk indicator and not the absence of one; therefore, absence of a risk indicator was coded by default for participants in the 170 programs.

Procedure

The MentorPRO archival database, containing data from approximately 17,500 matches was transferred through a secure file transfer protocol for data analysis purposes. The database was anonymized and prepared for data analysis, focusing on matches that included information on premature match closure and mentor, mentee, and program characteristics.

Results

Overall Prevalence of Premature Closure

The average rate of premature closure in this large national sample was 38.07%. Matches that prematurely closed were significantly shorter than matches that did not (mean length of prematurely closing matches = 8.05 months; mean length of non-prematurely closing matches = 19.39 months, $t_{(6466.1)} = 33.78$, $p < .0001$).

Individual Predictors of Premature Mentoring Relationship Closure

Logistic regressions for program, mentor demographic, and mentee demographic variables were corrected for the nestedness of data within program using PROC GLIM-MIX (SAS Institute Inc., Cary, NC, USA). Due to limited variability in many of the individual risk characteristics,

these analyses could not be corrected for nestedness and the analyses were conducted using PROC LOGISTIC (SAS Institute Inc., Cary, NC, USA).

Program characteristics

Program location and format were not significant predictors of premature closure; although the effect for location was trending significant. Although the model chi-square was not significant, compared to community-based matches, matches occurring in workplace settings may have a lower rate of premature closure.

Mentor characteristics

In Table 1, mentors' sex was significantly associated with premature closure, with males significantly less likely to have a match that closed early compared to females. Mentors' race was significantly associated with premature closure with Asian mentors being significantly more likely to have a match close early, compared to White mentors. Mentors' age was not significant associated with premature closure, although the effect was trending significant. Although the model chi-square was not significant, closer inspection reveals that, compared to mentors who were between the ages of 25 and 34.9 when the match began, young adult mentors (18–24.9) may be more likely to experience premature closure.

Mentee characteristics

Table 2 shows that mentees' sex and race were not significantly associated with premature closure, although male mentees were marginally less likely to be in a matches that closed prematurely than female mentees. Mentees'

Table 1 Effect sizes for the associations between individual mentor characteristics and premature match closure

Mentor characteristic	$\chi^2(df)$	% of sample	% premature closure	Odds ratios	
				Estimate	95% confidence limits
Gender					
Female[a]	$\chi^2(1) = 6.54^*$	63.8	40.2		
Male		36.2	37.3	0.87[*]	0.78–0.97
Race and ethnicity					
White[a]	$\chi^2(5) = 21.24^{***}$	64.5	38.0		
African American		26.3	36.9	1.01	0.86–1.19
Asian		3.1	52.1	1.93[***]	1.41–2.66
Hispanic		3.9	46.8	1.28[+]	0.97–1.69
Native American		0.4	48.3	1.80	0.81–4.00
Multiracial		1.8	36.8	0.87	0.57–1.32
Age at match start					
18–24.9 years old	$\chi^2(3) = 6.83^+$	28.4	42.9	1.18[*]	1.01–1.38
25–34.9 years old[a]		27.3	40.2		
35–49.9 years old		25.2	39.8	1.04	0.89–1.22
50–65 years old		19.0	38.5	0.95	0.80–1.13

$^+p < .10$, $^*p < .05$, $^{**}p < .01$, $^{***}p < .001$, [a]Reference Group.

age was significantly associated with premature closure. Compared to youth who were of elementary school age when the match began (6–10.9), those of middle school age (11–14) and high school age (14.1–19) were more likely to experience early match closure.

All the variables in the criminality category including delinquency, court involvement, and being gang-involved or at-risk for gang involvement were significant risk factors for premature match closure. For the family background category, being in foster care, being an immigrant, and having an incarcerated parent were significantly related to premature closure. Being in a low-income home, having a parent in the military, and being homeless were not related to premature closure. Although homelessness was marginally associated with premature closure, upon closer examination of the estimates, the confidence interval for the odds ratio effect size covered 1.0. For mentees' school functioning, having academic problems, poor grades, and attendance problems significantly increased risk for premature closure, whereas special education status was not related to premature closure. Both risky health behaviors in this database, including substance use and adolescent pregnancy, increased risk for premature closure. Internalizing problems such as anxiety, depression, and low self-esteem increased risk for premature closure, whereas feelings of isolation and problems with confidence were unrelated to premature closure. Although feelings of isolation was marginally significant, upon closer examination of the estimates, the confidence interval for the odds ratio covered 1.0. Behavior regulation difficulties such as ADHD and self-control problems were significantly associated with premature closure. Finally, both externalizing problems of aggression and having anger management problems significantly increased risk for premature closure. Mental health problems and having a physical disability were unrelated to premature match termination. Although having a physical disability was marginally significant, upon closer examination of the estimates, the confidence interval for the odds ratio covered 1.0.

Cumulative Risk Index (CRI) Predicting Premature Mentoring Relationship Closure

Overview of the cumulative risk analyses

The CRI was calculated by summing the total number of youth risk factors and was constructed using a four-step procedure. First, target risk indicators were identified; any risk indicator that was significantly associated with premature closure and had an odds ratio estimate above 1.0 with a confidence interval that did not cover 1.0 was identified as a risk indicator for premature closure. Second,

dichotomous risk factor category scores were calculated such that 0 represented the absence of any target risk indicators and 1 represented the presence of one or more target risk indicators within each factor. Third, each of the seven risk factor categories was examined as individual predictors of premature closure in a simultaneous logistic regression model in order to assess which categories best predicted match outcomes. Finally, the seven risk factors were summed together to create the CRI with individual scores ranging from 0 to 7. Youth who had five or more risk categories were combined into one group, due to the small number of youth with summed risk factor scores greater than five.

Risk category results

As can be seen in Table 3, only the family risk and risky health behaviors categories, and adolescent age were significant predictors of premature closure, when all risk categories were simultaneously included in the model.

Risk model results

The quadratic and linear factors for the CRI were tested in the model, and the linear CRI factor was significant ($b = 0.07$, $p < .05$); however, the quadratic CRI factor was not. Table 4 contains the odds ratio estimates of the independent variables. Both the CRI and age were significant predictors of premature closure. Figure 1 illustrates the relationship between the CRI and age group as predictors of premature closure. Both age and the CRI significantly positively predicted the probability of premature closure such that the more risk factors and the older the mentee, the greater the likelihood of premature closure.

Discussion

A wide range of program, mentor, and mentee risk factors were examined as predictors of premature match closure in the present study. This study was the first to establish that premature closure was significantly impacted by cumulative mentee risk factors in an additive linear risk model. In addition, the study replicated findings reported by Grossman and Rhodes (2002) that the age of mentees when matched strongly predicts premature closure, even in the context of other mentee risk factors. A second important contribution of this study is that family risk and engaging in risky health behaviors are most strongly associated with the early termination of mentoring relationships. This set of findings is important, because it addresses the mentee from a person-centered approach suggesting that the study of individual risk factors, while

Table 2 Effect sizes for the associations between individual youth characteristics and premature match closure

Youth characteristic	$\chi^2(df)$	% of sample	% premature closure	Odds ratios	
				Estimate	95% confidence limits
Gender					
Female[a]	$\chi^2(1) = 2.76^+$	56.0	39.6		
Male		44.0	36.2	0.92^+	0.83–1.02
Race and ethnicity					
White[a]	$\chi^2(5) = 2.93$	40.4	38.1		
African American		39.5	38.4	1.04	0.89–1.21
Asian		1.0	28.6	0.69	0.39–1.22
Hispanic		11.2	39.9	0.97	0.80–1.18
Native American		1.6	36.0	0.83	0.55–1.27
Multiracial		6.3	42.7	1.02	0.82–1.27
Age at match start					
Elementary school (6–10.9 years old)[a]	$\chi^2(2) = 18.00^{***}$	45.8	31.0		
Middle school (11–14 years old)		30.9	38.9	1.28^{***}	1.12–1.46
High school (14.1–19 years old)		23.3	50.9	1.39^{***}	1.16–1.66
Criminality					
Court involvement	$\chi^2(1) = 35.37^{***}$	3.4	59.0	2.24^{***}	1.72–2.91
Gang involvement	$\chi^2(1) = 30.49^{***}$	0.8	80.7	6.41^{***}	3.32–12.40
Gang at-risk	$\chi^2(1) = 11.55^{***}$	1.8	54.8	1.86^{***}	1.30–2.65
Delinquent	$\chi^2(1) = 18.92^{***}$	2.2	57.2	2.06^{***}	1.49–2.85
Family background stressors					
Foster care	$\chi^2(1) = 9.15^{**}$	4.2	48.3	1.44^{**}	1.14–1.81
Immigrant	$\chi^2(1) = 4.25^{*}$	1.8	48.8	1.45^{*}	1.02–2.07
Incarcerated parent	$\chi^2(1) = 8.65^{**}$	9.5	45.2	1.27^{*}	1.08–1.50
Low income	$\chi^2(1) = 0.28$	16.0	40.5	1.04	0.91–1.18
Parent in military	$\chi^2(1) = 0.37$	0.3	33.3	0.76	0.30–1.87
Homeless	$\chi^2(1) = 2.99^+$	0.5	54.3	1.80^+	0.93–3.51
School functioning					
Academic problems	$\chi^2(1) = 14.80^{***}$	18.2	44.6	1.27^{***}	1.13–1.44
School attendance	$\chi^2(1) = 27.33^{***}$	5.1	53.3	1.78^{***}	1.43–2.20
Poor grades	$\chi^2(1) = 18.53^{***}$	15.9	45.6	1.33^{***}	1.17–1.51
Special education	$\chi^2(1) = 1.63$	2.2	34.8	0.81	0.58–1.12
Risky health behaviors					
Pregnant	$\chi^2(1) = 5.63^{*}$	0.4	63.0	2.58^{*}	1.18–5.64
Substance use	$\chi^2(1) = 38.15^{***}$	1.7	69.6	3.53^{***}	2.37–5.27
Internalizing problems					
Anxiety	$\chi^2(1) = 14.34^{***}$	3.1	52.3	1.69^{***}	1.29–2.21
Depression	$\chi^2(1) = 11.32^{***}$	4.9	48.5	1.45^{***}	1.17–1.81
Self-esteem	$\chi^2(1) = 5.58^{*}$	14.0	43.3	1.18^{*}	1.03–1.35
Isolation	$\chi^2(1) = 3.40^+$	6.3	44.0	1.20^+	0.99–1.46
Confidence	$\chi^2(1) = 0.44$	10.2	41.0	1.06	0.90–1.24
Behavior regulation problems					
Self-control	$\chi^2(1) = 5.53^{*}$	7.3	44.8	1.25^{*}	1.04–1.49
ADHD	$\chi^2(1) = 8.63^{**}$	6.0	46.7	1.35^{**}	1.10–1.64
Externalizing problems					
Anger	$\chi^2(1) = 17.21^{***}$	8.2	48.0	1.44^{***}	1.21–1.71
Aggression	$\chi^2(1) = 19.76^{***}$	5.3	51.0	1.61^{***}	1.31–1.99
Mental health	$\chi^2(1) = 1.39$	1.2	46.3	1.31	0.84–2.03
Physical disability	$\chi^2(1) = 3.55^+$	0.5	24.3	0.49^+	0.23–1.03

$^+p < .10$, $^*p < .05$, $^{**}p < .01$, $^{***}p < .001$, [a]Reference Group.

informative, presents an incomplete and potentially misleading picture of the magnitude of risk. Youth who experience more vulnerabilities in multiple domains are even more at risk for early termination of their relationships than mentees with vulnerabilities in fewer domains. Furthermore, this study provides us with some initial insights into the domains producing the greatest mentoring relationship strain.

Family risk factors were strongly associated with premature closure. Youth in foster care, immigrant youth, or youth who have an incarcerated parent were at particularly high risk. All three groups experience many stressors associated with their backgrounds including high rates of residential mobility and financial instability. Youth in foster care or who have an incarcerated parent may have experienced upheaval in their home lives, and be resistant

Table 3 Maximum likelihood estimates of risk categories as simultaneous predictors of premature closure

Risk category predictor	df	Estimate	Standard error	Wald chi-square	Pr > ChiSq
Intercept	1	−0.43	0.03	175.40	<0.001
Criminality	1	0.22	0.12	3.17	0.075
Family background	1	0.22	0.07	9.20	0.002
School functioning	1	0.10	0.07	1.95	0.163
Risky health behaviors	1	0.53	0.21	6.49	0.011
Internalizing problems	1	0.02	0.08	0.06	0.811
Behavior regulation problems	1	−0.01	0.09	0.02	0.902
Externalizing problems	1	0.18	0.10	3.28	0.070
Middle school age	1	−0.12	0.04	10.23	0.001
High school age	1	0.51	0.04	152.98	0.001

Table 4 Effect sizes for the associations between individual youth characteristics and premature match closure

Characteristic	Odds ratios	
	Estimate	95% confidence limits
Cumulative risk index	1.07*	1.02–1.13
Middle school versus elementary school	1.24**	1.08–1.43
High school versus elementary school	1.35**	1.11–1.64

*p < .05, **p < .01, ***p < .001.
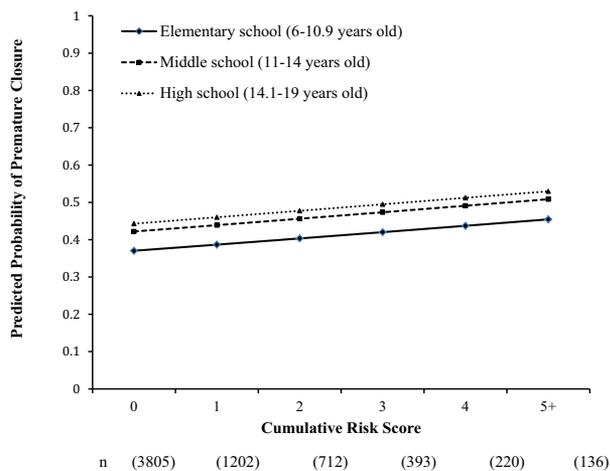
Fig. 1 Predicted probabilities of premature closure based upon mentee age group and cumulative risk index score [Color figure can be viewed at wileyonlinelibrary.com]

or hesitant to engage with new adults (Ahrens et al., 2011; Shlafer, Poehlmann, Coffino & Hanneman, 2009). Immigrant youth may experience difficulty transitioning to a new culture and the addition of a mentor may result in a cultural mismatch between the mentor and family

(Roffman, Suarez-Orozco & Rhodes, 2003), posing a challenge to establishing a strong relationship. In general, mentors may be uncomfortable or unfamiliar with how to develop a relationship with youth who come from these types of stressful family backgrounds.

The most important risk categories associated with premature closure was engaging in risky health behaviors. Mentors may feel overwhelmed by mentoring a youth who engages in behaviors such as substance use or who is pregnant at the time of match initiation. Although youth in long-term mentoring matches engage in less frequent alcohol use (Rhodes, Reddy & Grossman, 2005), nearly 70% of matches in the current sample that included a mentee who engaged in substance use ended early. Preventing the early match closures of substance-using youth and fostering a healthy mentoring relationship may result in positive youth outcomes and less use later. In addition, youth who were pregnant at the start of the match, although they represented a small proportion of the current sample, were significantly more likely to end early. Pregnant mentees may place less of a priority on their mentoring relationships, unless these relationships are specifically related to providing them with support around being an adolescent mother. In one study of mentoring pregnant or parent adolescents, matches tended to close due to mentee avoidance and distraction, fear of intimacy, and mentees' demands overwhelming mentors (Bogat, Liang & Rigol-dahn, 2008).

Youth with behavioral or emotional problems may be more likely to challenge the boundaries in a mentoring relationship, resulting in mentors feeling burned out or violated. Specifically, youth involved in criminality may leave their mentoring programs and end their mentoring relationships prematurely, if they are involved in antisocial behavior, are affiliating with antisocial peers, and not valuing the time they spend with an adult mentor. Mentees with a history of externalizing behavior problems may not want to be a part of prosocial relationships with helping adults, and their antisocial behavior may extend to their relationships with their mentors including stealing from them, threatening them, or making them feel unsafe. Mentors may quit prematurely, if they feel threatened or unsafe, or unprepared to address challenges involved in mentoring high-risk youth. Likewise, mentors may have difficulty establishing a relationship with an angry or aggressive mentee, or a behaviorally dysregulated youth.

Educational risk factors were also associated with risk. Mentees who are disengaged in school and from their teachers may also be disengaged and uninterested in their mentoring relationships. Likewise, mentors may feel frustrated if they are not having an impact on their mentees' academic performance, particularly if the program is school-based and school-focused. Mentors may spend too

much time acting as a tutor instead of a trusted adult friend and youth may lose interest in the relationship and end the match early.

Internalizing behavior problems also served as a risk factor for early termination. Previous work has shown that healthy and consistent mentoring relationships can result in increases in self-esteem (King, Vidourek, Davis & McClellan, 2002), but low self-esteem is associated with premature match termination in the current study, suggesting that efforts should be taken to maintain those relationships, as mentoring has been shown to have a positive effect on self-esteem. Anxiety and depression were also associated with premature closure, possibly because depressed and anxious youth are hesitant to engage with a trusted adult and feel uncomfortable in a new relationship. Mentors may not know how to engage a youth who closes himself or herself off or avoids relationship-building.

In addition to these risk factors, age at match was independently and additively related to premature closure. Adolescence is a time when youth take on new roles and become more autonomous and peer-focused. As they transition to adulthood, they also may be less communicative and responsive to caring adults. Although mentors may offer friendship, advice, and connections during this time of transition, they are also likely competing with mentees' other commitments, including increased extracurricular activities, focus on friendships, and potentially, involvement in romantic relationships, and entry into the workforce (Darling, 2005). For these reasons, initiating mentoring with an adolescent may be more challenging than initiating a mentoring relationship with children. Despite these cautionary findings, in a meta-analysis of the impact of mentoring on youth outcomes, there were no differences in outcomes as a function of the age of mentees (DuBois et al., 2002) suggesting that strong program practices may mitigate against the difficulties associated with mentors trying to establish positive, close mentoring relationships with adolescent mentees.

Although the overall model for program setting was not significant, workplace mentoring programs may have significantly fewer premature closures than community-based programs. Workplace mentoring programs may be more structured and time-limited, thus resulting in reduced rates of premature closure (Spencer & Basualdo-Delmonico, 2014).

Several mentor characteristics were associated with risk including being a female, Asian, and young adult at match. Consistent with these findings, Grossman and Rhodes (2002) reported that matches with female mentors were more marginally more likely to terminate early than matches with male mentors. Asian mentors, while relatively rare, may be matched with youth from very different cultural or ethnic backgrounds, presenting challenges in relationship development. Cultural competency training may be helpful in sustaining these matches.

Implications for Mentoring Program Policy and Practice

Mentoring programs and mentors should be prepared to identify and serve all mentees, especially high-risk mentees. Given that mentor characteristics, such as self-efficacy and previous experience with youth, can ameliorate some of the negative effects associated with mentoring youth who experience high levels of environmental and behavioral risk (Raposa, Rhodes & Herrera, 2016), there are several ways that programs can be prepared and competent to serve them. First, effective pre-match mentor training can bolster feelings of self-efficacy in mentors (Kupersmidt, Stelter, Rhodes & Stump, Unpublished). More broadly, delivery of the pre-match mentor-training topics outlined in the Training and Closure standards in the Elements of Effective Practice for Mentoring (MENTOR/National Mentoring Partnership, 2015) can help decrease unnecessary and early termination from occurring that may stem from factors such as unrealistic expectations or poor communication skills. Mentoring a youth with multiple vulnerabilities can result in the mentor losing interest or motivation to sustain the mentoring relationship, or feeling overwhelmed or ineffective. Proper training can help mentors prepare for the inevitable challenges that are faced in all relationships, and especially those with youth in need (MENTOR/National Mentoring Partnership, 2015). Ongoing post-match training and support can also contribute to more effective, more enduring, and higher quality mentoring relationships (DuBois et al., 2002; Herrera et al., 2007, 2013).

Mentees and parents or guardians also have a role to play in building and sustaining the match. Unfulfilled expectations, pragmatic concerns, and common frustrations often emerge in the early, vulnerable stages of relationship development (Spencer, 2006). Mentees and families who are not trained on the realities of mentoring may experience disappointment and in turn, may sabotage or even terminate the relationship. Training of mentees and their parents or guardians with the skills and knowledge needed to develop a strong relationship with mentors and the mentoring program staff may contribute to relationship success.

A key enhancement to program practices is to reduce the staff to match ratio for high-risk matches, so that staff can provide stronger, more frequent match support services. In order to support high-risk matches, match support staff will need more intense, more focused, and ongoing professional development and supervision. In fact, research suggests that match monitoring and mentor support are associated with stronger and more enduring mentoring relationships (DuBois et al., 2002; Herrera, Kauh, Cooney, Grossman & McMaken, 2008; Herrera et al., 2007).

Regardless of the reason for closure, it is important for mentors to try to end the mentoring relationship in a positive manner (Miller, 2007). Recommended procedures include training that prepares mentors and mentees for anticipating the closure of the mentoring relationship and how to terminate in a positive manner (Skinner & Fleming, 1999); discussions between mentors and mentees about the memories of fun times they have shared; mentors and mentees participating in a special activity during their final meeting (Jucovy, 2001); mentors and mentees celebrating with a graduation night that will provide mentees with a sense of closure with their mentors and the mentoring program (Miller, 2007); and recognizing specific contributions of the mentors and mentees (Tarling, Burrows & Clarke, 2001).

Limitations and Future Directions

The MentorPRO database is an archival dataset in which users input their own data. The user-controlled nature of the dataset may diminish the validity of the data as little information is available about how mentoring programs used the MentorPRO system or how risk variables were explained or defined to respondents. In addition, the reliance on an absence of risk assumption likely resulted in an overestimation of the absence of risk. Future research is needed on reasons for closure, including who initiated the closure and the circumstances that led to the decision to close, which could aid in creating targeted training designed to prevent match closure, foster patience, and persistence in both the mentor and mentee, and increase mentor efficacy to build relationships with youth who may have significant vulnerabilities.

Finally, this study examined mentoring programs that exclusively used a formal, traditional, one-to-one mentoring relationship model. Schwartz and Rhodes (2016) have recently described some new mentoring frameworks that involve the development of natural mentoring relationships and the strengthening of informal support systems. These emerging models for youth mentoring relationships may be associated with additional or different sets of risk factors that predict relationship termination. Future research on natural or youth-initiated mentoring relationships might explore risk for premature closure, which may reveal a need for additional or modified program practices to support and sustain these more informal types of mentoring relationships.

Conclusion

This study has made significant contributions to our understanding of premature match closure as a function of risk. Mentoring relationships are difficult to sustain in the best of circumstances; however, as individual children's vulnerabilities accumulate, relationships face significant challenges. Mentoring programs and their funders have the opportunity to mitigate these risks through implementing enhanced program practices.

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