The Behavioral Evidence of Mattering Measure (BEMM), Mattering to Fathers, and Adolescents’ Adjustment over Time

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Abstract
We examined the interplay among fathers’ behavioral evidence of mattering, mattering to fathers, and adolescents’ adjustment. A total of 393 families with a 7th grader participated in the study over three waves of data collection that ended when adolescents were in the 10th grade. First, we examined the psychometric properties of the Behavioral Evidence of Mattering Measure (BEMM), and the results showed that the BEMM demonstrated longitudinal measurement invariance over time. Next, a three-wave cross-lagged path analysis showed that more behavioral evidence of mattering at early waves predicted adolescents’ greater perceived mattering to fathers at later waves and more mattering subsequently predicted less behavior problems over time in the 10th grade. This study highlights the importance of fathering and how adolescents perceive the father-adolescent relationship.

Introduction
Positive parenting behaviors are associated with fewer behavior problems among adolescents (Smetsena et al., 2002), and adolescents’ higher perceived mattering to their parents is related to the adolescents’ higher self-esteem, lower depression, and anxiety (Rosenberg & McCullough, 1981). However, the majority of studies on these topics have focused on dyads and mother-child relationships, and relatively little research has examined fathers’ parental behaviors and how those behaviors might influence children’s adjustment (Bronte-Tinkew et al., 2006).

Scholars have recognized the increasingly important roles of fathers in families and the significance of father-adolescent relational quality (Cabrera et al., 2000). When adolescents feel that they matter to their fathers, they are better off psychologically and behaviorally (Schenck et al., 2009).

The present study examined:
1. The psychometric properties of the Behavioral Evidence of Mattering Measure (BEMM) are assessed for longitudinal measurement invariance.
2. We examined whether more behavioral evidence of mattering behaviors by fathers (fathering behaviors that should lead children to perceive they are important to their fathers) at early waves predicted greater perceived mattering to fathers at later waves, and whether higher levels of perceived mattering predicted fewer adolescent behavior problems at the last time point.

Method
Participants
This study analyzed data from a longitudinal research project, the Parent and Youth Study (PAYS), which was conducted in two southwest states (http://pays.sfu.edu). A total of 393 families with a 7th grader (at the time of Wave 1) were interviewed three times between 7th (M age = 12 years, 10 months; 48% male) and 10th grade (M age = 16 years).

Procedure
All families at Wave 1 and 3 completed in-person interviews, and those at Wave 2 completed phone interviews. Participants were asked to complete three scales to assess fathers’ behavioral evidence of mattering, adolescents’ mattering to fathers, and adolescents’ symptom severity.

Results (Figure 1)

Figure 1. Cross-lag model for fathers’ behavioral evidence of mattering, adolescents’ mattering to fathers, and adolescents’ symptom severity. x²(26) = 16.055, p = .014, CFI = .986, RMSEA = .065, 90% CI [.027 ,.105], SRMR = .028. There was stability over time in all constructs with earlier higher levels predicting later high levels. Additionally, earlier symptom severity predicted less perceived mattering over time, and higher mattering predicted later symptom severity. Finally, there was a trend (p = .068) for an indirect effect from fathers’ behavioral evidence of mattering to adolescents’ symptom severity via adolescents mattering to fathers. Higher levels of positive behavioral evidence of mattering by fathers at W1 predicted more mattering to fathers at W2 after controlling for mattering at W1 (p = .014), and these greater mattering at W2 subsequently predicted adolescents’ less behavior problems at W3, after controlling for problems at W1 (p = .007).

Discussion
This study focuses on paternal parenting behaviors as well as adolescents’ perceived mattering to fathers during their children’s emerging adulthood. Importantly, we found that our measure of behavioral evidence of mattering maintained measurement invariance across two waves of measurement. We also found links between earlier high levels of behavioral evidence of mattering and greater perceived mattering over time, a finding we replicated from W1 to W2 as well as from W2 to W3. Our findings suggest father expressions of behaviors intended to inform adolescents of their important to their father are linked to the very outcome of adolescents feeling they matter to their father.

The results also demonstrated an indirect path from greater positive fathering behaviors to adolescents’ fewer behavior problems via adolescents’ more mattering to fathers, using multiple time points of data collection. This is important because father behaviors appear to be linked to child outcomes through the adolescents’ perception of the father behavior. Subsequent research should focus on why adolescents might perceive the same fathering behaviors differently.

This study also demonstrates the importance of fathering that helps children feel important to fathers in the family relationship context, which ultimately influences children’s outcomes.

It emphasizes the positive aspects of fathering behaviors, while much previous research related to parenting behaviors has focused on negative parenting behaviors such as fathers’ inappropriate behaviors.

It examines the predictions of later constructs through earlier constructs using longitudinal model.

Acknowledgement
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References

Measures
Fathers’ behavioral evidence of mattering. The Behavioral Evidence of Mattering Measure (BEMM) was created to assess how frequently fathers exhibit behaviors with/for the children that are likely to lead the children to believe that they matter to their fathers. Sample items included “How often does he hug you, pat you on the back, or show other signs of physical affection?” and “How often does he take your side?” Cronbach’s alphas were W1 = .83 and W2 = .85, respectively.

Adolescents’ mattering to fathers. The Mattering Scale (Stevenson et al., 2013) was used to measure adolescents’ mattering to fathers. Completed eight items (i.e., “I believe I really matter to my dad,” “I’m not that important to my dad.”) Cronbach’s alphas were W1 = .84, W2 = .88, and W3 = .92, respectively.

Adolescents’ adjustment (Behavior problems). To accommodate the multiple reporters (mother, father, teacher, and child) and address comparability between internalizing (I) and externalizing (E) symptoms, the Symptom Severity score [(I + E)/2] (Suh et al., 2016) was computed from the internalizing and externalizing factor scores. Higher severity scores indicated higher overall severity of symptoms. The factor loadings for both internalizing (I) and externalizing (E) on the first component were above .50 and .60 respectively, and a coefficients exceeded .50 and .60 respectively. Sample items included “In the past month you got mad easily,” “(He/she) was impulsive, or acted without thinking.”

For the invariance test to examine the psychometric properties of the Behavioral Evidence of Mattering Measure (BEMM), we found that item weights, means, and residual variances were equivalent across time at the same level of the factor mean and variances. Thus, the BEMM demonstrated longitudinal measurement invariance over time.

A three-wave cross-lagged path analysis examined the relationships among fathering behaviors of mattering, adolescents’ mattering to fathers, and adolescents’ adjustment across time. The results are depicted in Figure 1, including significant δ values. The model fit was good (χ²(26) = 16.055, p = .014, CFI = .986, RMSEA = .065, 90% CI [.027 ,.105], SRMR = .028). There was stability over time in all constructs with higher levels predicting later high levels. Additionally, earlier symptom severity predicted less perceived mattering over time, and higher mattering predicted later symptom severity. Finally, there was a trend (p = .068) for an indirect effect from fathers’ behavioral evidence of mattering to adolescents’ symptom severity via adolescents mattering to fathers. Higher levels of positive behavioral evidence of mattering by fathers at W1 predicted more mattering to fathers at W2 after controlling for mattering at W1 (p = .014), and these greater mattering at W2 subsequently predicted adolescents’ less behavior problems at W3, after controlling for problems at W1 (p = .007).