

Volume 14, Number 1, 2008

Authors

Brian M. Jobe University of Maryland **Baltimore County**

Laraine Masters Glidden Department of Psychology St. Mary's College of Maryland

Correspondence

Laraine Glidden lmglidden@smcm.edu

Keywords

Transition Daily Rewards and Worries Questionnaire longitudinal prediction maternal personality adaptive behaviour maladaptive behaviour

Predicting Maternal Rewards and Worries for the Transition to Adulthood of Children With **Developmental Disabilities**

Abstract

Transition to adulthood for students with disabilities is of interest both to service providers and families. It is, however, a lengthy and often tortuous journey, and the success with which parents navigate it has implications for them, for their adult children with disabilities, and for providers of services. In this study, we were able to predict maternal responses to the Transition Daily Rewards and Worries *Questionnaire (TDRWQ) from maternal personality,* measures of well-being and depression, and child adaptive and maladaptive behaviour measured 6 years earlier. Most notably, the personality variable of Extraversion, a global measure of well-being, and both adaptive and maladaptive behaviour of the child with disabilities predicted 32.7% of the variance of a general positive orientation to the future. This stability should be useful in targeting those families who may have trouble with the transition to adulthood.

Preparation for transition to adulthood for adolescents with developmental disabilities (DD) is both mandated by federal legislation in the United States (IDEA, 2004) and valued by professional educators (Cooney, 2002; Goupil, Tassé, Garcin, & Doré, 2002; Morgan, Moore, McSweyn, & Salzberg, 1992; Washburn-Moses, 2006), by parents (Hanley-Maxwell, Whitney-Thomas, & Pogoloff, 1995; McIntyre, Kraemer, Blacher, & Simmerman, 2004; Thorin, Yovanoff, & Irvin, 1996), and by the individuals with DD who are making the transition (Cameron & Murphy, 2002; McGrew, Johnson, & Bruininks, 1994; Nuehring & Sitlington, 2003). Indeed, with increased life expectancy for many individuals with DD, a long adulthood is now the expectation rather than the anomaly. Recognizing that their sons and daughters may outlive them, parents are naturally concerned about their future with regard to issues of work, community living, and socialization, especially given that recent evidence

indicates that in the U.S. we are still far from successful in meeting goals in these domains (McPherson, Weissman, Strickland, van Dyck, Blumberg, & Newacheck, 2004). Because families are likely to remain important financial and emotional resources for their adult children even when they are not living together, it is essential that those providing services to adults with DD in the community understand the parental perspective.

In much of the previous research on the transition to adulthood, this parental perspective has been dominated by a focus on parental concerns and worries. For example, Thorin and Irvin (1992) asked mothers, fathers, and siblings of 19 adolescents or young adults with severe disabilities to describe specific concerns within 7 broad transition domains such as school, work life, residential services, and family life. Analyses resulted in 28 different areas of concern, with 50 percent or more of respondents reporting concerns in 13 of the 28 areas. Similarly, Kraemer and Blacher (2001) interviewed a small sample of mothers who reported about their worries with regard to work, social opportunities, and community living. Keogh, Bernheimer, and Guthrie (2004) obtained comparable results with a similar sample and method. In contrast, with the advent of a positive psychology approach (Seligman & Csikszentmihalyi, 2000), some investigators have begun to design studies in which they are asking questions which are more likely to uncover both benefits and problems in family reactions to rearing children with DD (Flaherty & Glidden, 2000; Hastings & Taunt, 2002). Research relating to the transition to adulthood is no exception to this trend. Blacher (2001), for example, proposed a model that included variables relating to the individual with disabilities, attributes of his or her family, and cultural factors as important in predicting family well-being during the transition process.

In our own previous work, we quantified parental rewards and worries developing a psychometrically reliable and valid inventory for measuring these reactions (Glidden & Jobe, 2007). The result was the Transition Daily Rewards and Worries Questionnaire (TDRWQ), a 28-item inventory with good internal and test-retest reliability, as well as established discriminant and convergent validity. Items in the inventory are balanced in their phrasing as a reward or a worry, and four domains are tapped for all families, and a fifth domain of family relations including siblings is tapped in families where there is at least one brother or sister. The TDRWO is described in more detail in the Method section.

In Glidden and Jobe (2007), the scores on the TRDWQ correlated significantly with concurrent measures of parental functioning such as depression and subjective well-being, as well as child characteristics, specifically adaptive and maladaptive behaviours. The patterns of correlations, however, were not the same for each of the TDRWQ factors. For example, the correlations with both parental wellbeing and child adaptive and maladaptive behaviour were strongest for the Positive Future Orientation factor and weakest for the Family Relations factor. These patterns led to the primary rationale for the current study, an attempt to predict scores on each of the TDRWQ factors by a combination of earlier reports of maternal and child characteristics. We believed that it was important to predict differentially, because parents are likely to experience different levels of worry or satisfaction with different aspects of the multidimensional transition experience. For example, they might be quite pleased with the residential arrangement while simultaneously voicing many concerns over the employment or recreational dimensions of their young adult child's life.

We selected three sets of maternal characteristics-personality, subjective well-being, and depression-and two characteristics of the individual with DD—adaptive behaviour and maladaptive behaviour-as potential predictors. As described in the previous paragraph, in Glidden and Jobe (2007) we demonstrated the empirical link between these characteristics and parental perceptions of transition. Moreover, there are important theoretical justifications for our selection. For example, Blacher (2001), building on the earlier work of Hill (1949) and McCubbin and colleagues (e.g., McCubbin & Patterson, 1982), formulated a model that predicted transition success and family well-being from individual features of the transitioning person with DD and parental, family, and cultural characteristics. Blacher identified both adaptive and maladaptive behaviour of the transitioning individual as two important characteristics that influence transition success and family well-being. Although she did not specifically include parental personality as a critical variable, she did specify parental coping strategies, and our previous work (Glidden, Billings, & Jobe, 2006) demonstrated that parental personality predicted parental coping.

Certo, Mautz, Smalley, Wade, Luecking, Pumpian et al. (2003) described a model very different from Blacher's, but still relevant with regard to transition to adulthood. Their focus was on improving the employment status of young adults making the transition from school to work. They demonstrated that interagency collaboration was exceptionally successful in securing employment and maintaining it over a three-year period. Parents' perceptions are not addressed in their model, but likely should be. Although employment status is an important outcome criterion, it is not an exclusive criterion. Parental rewards and worries with regard to transition are also ingredients by which successful transitioning should be measured. The results of the current research have the potential to determine what variables other than employment status predict parental rewards and worries.

In sum, we hypothesized that earlier reported personality characteristics, levels of subjective well-being, and depression scores would significantly predict each of the TDRWQ factors. Specifically, based on the findings of Glidden et al., (2006), we predicted that high levels of Neuroticism and depression, and low levels of Extraversion and subjectivewell-being, would significantly predict lower scores on the TDRWQ, indicating more worries in comparison to rewards. Moreover, we predicted that adaptive behaviour and maladaptive behaviour of the transitioning individual would predict TDRWQ scores, such that higher levels of adaptive behaviour and lower levels of maladaptive behaviour would be linked to more positive maternal perceptions of transition outcomes. We expected that some of these variables would be stronger predictors for some of the TDRWQ factors than for others, but we believed that there was neither sufficient theoretical rationale nor empirical evidence to formulate precise hypotheses regarding this differential prediction.

Method

Participants

Participants were a subset of parents in an 18-year longitudinal sample of families rearing children with DD (Flaherty & Glidden, 2000; Glidden & Jobe, 2006; Glidden & Schoolcraft, 2003). Because the father sample was too small to conduct the analyses planned for the current study, only mothers, all of whom were rearing at least one son or daughter with DD, were selected (*n*=97). We collected the data for

the predictor variables when the mothers were, on average, 43.37 years (SD=6.32), and the children were, on average, 11.88 years (SD=3.05). Mothers completed the TDRWQ an average of 6.02 years later, when the children were mostly adolescents or young adults and were, on average, 17.84 years old (range: 12-26 years).

The mothers were predominantly Caucasian (85.6%), married for more than 13 years (69%), with a median family income of \$50,000 at the time of the earlier data collection. Their sons and daughters were also predominantly Caucasian (59.8%), with other races and ethnicities represented as follows: African American, 15.5%; Hispanic, 6.2%; Asian, 4.1%; mixed race/ethnicity, 14.4%. The children were majority male (58%) and although the sample contained individuals with DD of varying etiology, the most frequent diagnoses were Down syndrome (43%) and cerebral palsy (13%). The remainder of the sample included individuals with other genetic and chromosomal conditions, fetal alcohol syndrome, other causes of brain damage, and DD of unknown origin Their adaptive behaviour functioning was substantially below their chronological age. Mean scores on the Adaptive Behavior Scale (ABS) in age equivalencies were 11.20 years on Personal Self-Sufficiency, 6.42 years on Community Self-Sufficiency, and 7.47 years on Personal Responsibility. Most (88%) of these sons and daughters still lived with their parents, with 7% living alone or with a friend, and 5% living in a group home or other type of residential facility for persons with DD.

Materials

Maternal personality, subjective wellbeing, depression, and child functioning were used as predictors in the present study and were all measured at the same time. The TDRWQ factors were used as outcome measures and were measured an average of 6.02 years after the predictor measures.

Personality. Personality was assessed by the self-report version of the NEO Five-Factor Inventory (NEO-FFI, Costa & McCrae, 1992). The NEO-FFI measures five major domains of personality: Neuroticism, Extraversion, Openness, Agreeableness, Conscientiousness. Neuroticism assesses general mental stability/instability and includes items about anxiety, hostility, depression, and vulnerability. Extraversion encompasses warmth, gregariousness, and positive emotions. Openness consists of fantasy, aesthetics, and the valuing of ideas, whereas Agreeableness consists of trust, altruism, compliance, and tendermindedness. Conscientiousness includes items relating to competence, order, dutifulness, achievement striving, and self-discipline. Each domain on the NEO-FFI has 12 items, for a total of 60 items. Participants rated themselves on each of the items/statements on a 1-5 point scale, ranging from "strongly disagree" to "strongly agree." The possible score range for each domain was from 12 to 60. Because none of the bivariate correlations of Agreeableness and Conscientiousness with any of the five TDRWQ factors were significant, only Neuroticism, Extraversion, and Openness were selected as predictor variables in this study.

well-being. Respondents Subjective completed three different subjective wellbeing (SWB) ratings: Global (G), Current (C), and Child-Related (CR). In our earlier research we had found that these three ratings, although moderately correlated with each other, had different patterns of correlation with other variables. For example, SWB-G and SWB-C were highly correlated with depression, but SWB-CR was not (Glidden et al., 2006). Therefore, we believed that it was essential to include all three measures in our prediction of each of the TDRWQ factors. Each of

these measures was completed using two different 7-point Likert scales twice during the earlier time of measurement. One scale was based on seven faces ranging from broadly smiling to broadly frowning and the other was based on word descriptors from Delighted to Terrible (Andrews & Withey, 1976). Based on the established comparability of these measures (Glidden & Jobe, 2005), the four ratings for each of the three types of subjective well-being were combined and the data presented and analyzed are the means for SWB-G, SWB-C, and SWB-CR.

Depression. All mothers completed the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) which consists of 21 items that are symptoms of depression. The BDI requires the respondent to choose among ordered statements scaled from 0 to 3 in terms of level of severity of symptoms of depression, such as sadness, guilt, self-dislike, crying, and insomnia. Total scores, therefore, could range from 0-63.

Child functioning. The ABS-S:2 (Lambert, Nihira, & Leland, 1993), which measures personal and social skills in Part 1 and maladaptive behaviour in Part 2, was completed by a teacher or another adult who knew the child well. Raw scores were standardized to a mean of 100 and a SD of 15. ABS Part 1 (ABS-1) assesses adaptive behaviour of the child, such as the ability to cope with the natural and social demands of the environment, whereas ABS Part 2 (ABS-2) assesses maladaptive behaviour of the child, such as self-abuse, stereotypy, and hyperactivity. High scores on each of the parts are desirable and indicative of high levels of adaptive behaviour (Part 1) and low levels of maladaptive behaviour (Part 2).

TDRWQ. Transition rewards and worries of mothers were assessed by the 28-item TDRWQ (Glidden & Jobe, 2007), focusing

on the various components of the son or daughter with DD transitioning out of the home. Seven items on siblings were answered only by mothers with at least two children (n=87). Respondents were instructed to circle their level of agreement for each item on a 5-point Likert scale. The response options were anchored by strongly disagree (1) and strongly agree (5), with a neutral response of neither agree nor disagree (3). The items were either a reward (positive) or a worry (negative), and the worries were reverse scored when the factors were computed. Thus, higher scores are indicative of more rewards and fewer worries. The five factors included: (1) Positive Future Orientation (6 items; Cronbach α =.83), measuring the mother's general feeling regarding the child's future. Sample items are: "I am excited by the prospects for my child's future" and "I am optimistic about my child's adjustment to living outside the home." (2) Community Resources (7 items; Cronbach α =.83) , centering on job preparation and independent living, with items such as "I believe that there are a lot of resources available in my child's community" and "I feel that school programs have not adequately prepared my child for independent living." (3) Financial Independence (5 items; Cronbach α=.85), concerning the child's likelihood of becoming self-supporting, with items such as "I am afraid that my child will depend on me forever" and "I am concerned about my child's financial stability in the future." (4) Family Relations (3 items; Cronbach α =.51), with items that relate to the family generally such as "I am sad that my child is missing out on important family interactions"; and (5) Family Relations with Siblings (Cronbach α =.76) which includes the 3 general family items and 7 additional items that are sibling related such as "I am glad that my children look out for one another."

Results

The standardized mean TDRWQ factor scores are displayed in Table 1 along with the means of the nine earlier measured predictor variables. Pearson correlations among these 14 variables are displayed in Table 2 [see page 79]. Of the possible 45 correlations between the 9 predictor variables and the 5 TDRWQ factors, 17 were significant at an alpha of .05 or less. Four of the five TDRWQ factors were significantly correlated with at least two predictor variables, and Positive Future Orientation was significantly correlated with six of the nine predictor variables, including three earlier maternal functioning characteristics-SWB-G, SWB-C and depression; the personality variable of extraversion; and both adaptive and maladaptive scores of the transitioning son or daughter. Although the Family Relations factor of the TDRWQ was not significantly correlated with any of the nine predictor variables, when the sibling items were included, five of the nine correlations were significant. All of the correlations of Family Relations and the predictor variables were in the same direction as those with the Family Relations with Siblings factor, but were lower.

Because each of the nine predictor variables was significantly correlated with at least one of the TDRWQ factors, they were all retained and entered hierarchically into five regression analyses, one for each of the five TDRWQ factors. The maternal personality characteristics of Neuroticism, Extraversion, and Openness were entered as the first level, as they were considered to be foundational, influencing the levels of depression and well-being which were entered next, including SWB-G, SWB-C, and SWB-CR, and BDI. The final level of predictors included the two measures of child functioning, ABS-1 and ABS-2. At each level, the stepwise regression

Table 1. Mean and Standard Deviation Values of TDWRQ Factors and Earlier Measured Variables

	invics		
Variables	Mean Score	SD	Number of Items
TDRWQ, Positive Future Orientation	3.22	0.92	6
TDRWQ, Community Resources	2.81	0.91	7
TDRWQ, Financial Independence	2.87	1.14	5
TDRWQ, Family Relations	4.14	0.84	3
TDRWQ, Family Relations with Sibling Items	4.04	0.68	7
SWB - Global	2.60	0.90	
SWB - Current	2.77	0.94	
SWB - Child-Related	2.65	0.95	
BDI	7.30	6.75	
NEO-N	20.53	8.60	
NEO-E	29.50	6.29	
NEO-O	27.00	6.01	
ABS, Part 1	85.57	26.85	
ABS, Part 2	91.33	12.80	

Note. N = 97, except for TDRWQ, Family Relations with Sibling Items (n = 86). Transition Daily Rewards and Worries Questionnaire (TDRWQ) items measured on a 5-point Likert scale, with higher scores indicating more rewards. Factor scores have been standardized. Subjective well-being (SWB) is measured on a 7point Likert scale, with lower scores indicating better functioning. With the Beck Depression Inventory (BDI), higher scores indicate higher levels of depression. NEO-N (Neuroticism), NEO-E (Extraversion), and NEO-O (Openness) are measured on a 1-5 scale, with scores ranging from 12-60. Higher scores represent greater endorsement of the personality factor. The Adaptive Behavior Scale-School Version (ABS), measures personal and social skills in Part 1 and maladaptive behaviour in Part 2. For both ABS measures, higher scores indicate better functioning.

* *p*<.05. ** *p*<.01.

```
Table 2. Correlations between TDRWQ Factors and Earlier Measured Variables
        PFO
               CR
                                    FRwSI SWB-G SWB-C SWB-
                                                                  BDI NEO-N NEO-NEO-ABS-1 ABS-
                                                           CR
                                                                                 Е
                                                                                       0
PFO
       0.49**
CR
       0.25*
              0.30**
FΙ
FR
       0.20
             -0.06
                     0.38**
                     0.48** 0.73**
FRwSI 0.28** 0.17
SWB
      -0.41** -0.28** -0.21* -0.08
                                   -0.24*
- G
      -0.27** -0.16 -0.26** -0.02
SWB
                                   -0.21
                                           0.77**
- C
SWB
      -0.16
              0.04
                    -0.26* -0.16
                                   -0.26*
                                           0.41** 0.51**
- CR
                    -0.06
                                           0.51** 0.51** 0.21*
BDI
      -0.24* -0.16
                           -0.12
                                   -0.15
NEO
      -0.18
              0.02
                     -0.09
                            -0.15
                                   -0.31** 0.50** 0.50** 0.19
                                                                 0.60**
- N
NEO
              0.03
                     0.01
                            0.18
                                    0.21* -0.32** -0.22* -0.14 -0.42** -0.40**
       0.22*
- E
                     0.00
                            0.09
                                           0.01
                                                  -0.01
                                                          0.11
NEO
       0.15
             -0.17
                                    0.26*
                                                                 0.04
                                                                        -0.14
                                                                                0.26*
- O
ABS
       0.39** 0.25*
                     0.21*
                            0.01
                                    0.06
                                           -0.10
                                                  -0.07
                                                          0.04
                                                                -0.15
                                                                        -0.18
                                                                                0.18 0.12
- 1
ABS
       0.30** 0.14
                     0.11 - 0.03
                                    0.13
                                           -0.10
                                                  -0.11 -0.09
                                                                -0.09
                                                                        -0.13
                                                                                0.09 0.03 0.22*
- 2
```

Note. Transition Daily Rewards and Worries Questionnaire factors include: Positive Future Orientation (PFO), Community Resources (CR), Financial Independence (FI), Family Relations (FR), and Family Relations with Sibling Items (FRwSI). Other variables included are: Subjective Well-being: Global (G), Current (C), Child-Related (CR); Beck Depression Inventory (BDI); NEO-N (Neuroticism), NEO-E (Extraversion), NEO-O (Openness); and Adaptive Behavior Scale (ABS), Part 1 (Adaptive) and Part 2 (Maladaptive).

* *p*<.05. ** *p*<.01.

method was used to assess the relations between the variables measured six years earlier and the TDRWQ factor scores for 97 mothers. Only 86 mothers were used in the regression of TDRWQ, Family Relations with Siblings Items, as only these were mothers of more than one child. The results of these five regressions are displayed in Table 3 with β , R2, and R2 changes included [see page 80]. As can be seen in Table 3, there was at least one variable that predicted each TDRWQ factor, although the percentage of variance

that was accounted for varied from 32.7% for Positive Future Orientation to 6.7% for Family Relations.

For Positive Future Orientation, the significant predictors were Extraversion, SWB-G, ABS-1, and ABS-2, explaining 32.7% of the variance, F(4,92)=11.21, p<.001. Extraversion explained 4.7% of the variance, with SWB-G (12.7%), ABS-1 (11.8%) and ABS-2 (3.5%) uniquely explaining the remaining variance accounted for by the predictors. For Community Resources,

the significant predictors were SWB-G (7.7%) and ABS-1 (5.1%), explaining 12.8% of the variance, F(2,94)=6.90, p<.01. For Financial Independence, the significant predictors were SWB-C (7.0%) and ABS-1 (3.8%), explaining 10.8% of the variance, F(2,94)=5.65, p<.01. For Family Relations, the significant predictor was NEO Openness, explaining 6.7% of the F(1,95)=6.80,variance, p<.05. For Family Relations with Siblings Items, the significant predictors were NEO Neuroticism (9.3%), NEO Openness (4.3%), and SWB-C (5.4%), explaining 19.0% of the variance, F(3,82)=6.41, p < .01.

Discussion

Each of the five factors of the TDRWQ was predicted by one or more of the predictor variables. The variance accounted for was substantial (32.7%) in the case of Positive Future Orientation, a domain

that tapped a general positive feeling toward the future of the son or daughter with DD. The Family Relations factor was predicted most weakly with only one predictor, the personality variable of Openness, significantly predicting only 6.7% of the variance. We believe that this relatively poor prediction is an artifact of the factor's consisting of only three items and therefore not much variation in scores. For the 10-item Family Relations with Siblings factor, we accounted for almost triple (19%) the variance.

Table 3. Predicting Maternal Transition Rewards and Worries From Maternal Earlier Personality, Well-being, and Child Functioning Variables

Functioning variables			
TDRWQ Factors and Predictor Variables	β	R ²	R^2
variables		change	
Positive Future Orientation			32.70%
NEO-Extraversion	0.04	4.70%	
SWB-Global	-0.35**	12.70%	
ABS, Part 1	0.31**	11.80%	
ABS, Part 2	0.19*	3.50%	
Community Resources			12.80%
SWB-Global	-0.26**	7.70%	
ABS, Part 1	0.23*	5.10%	
Financial Independence			10.80%
SWB-Current	-0.25*	7.00%	
ABS, Part 1	0.20*	3.80%	
Family Relations			6.70%
NEO-Openness	0.26*	6.70%	
Family Relations with Sibling			19.00%
Items			
NEO-Neuroticism	-0.20	9.30%	
NEO-Openness	0.25*	4.30%	
SWB-Child-Related	-0.24*	5.40%	

Note. N=97, except for TDRWQ—Family Relations With Sibling Items (n=86). For all regressions, maternal personality variables (NEO factors of Neuroticism, Extraversion, and Openness) were entered stepwise as the first level. In the second level, the maternal outcome variables of Subjective well-being (Global, Current, Child-Related) and depression (BDI) were entered stepwise. The final step included child functioning variables (ABS, Part 1 [Adaptive] and ABS, Part 2 [Maladaptive]). β are Standardized Betas.

*p < .05. **p < .01.

All but one of the nine predictor variables (i.e., maternal depression) significantly predicted at least one of the five TDRWQ factors. The transitioning child's adaptive behaviour as measured by the ABS-1, predicted three of the five factors and maladaptive behaviour as measured by the ABS-2, significantly predicted only one factor. It was not surprising that the mothers of children with higher levels of adaptive behaviour would have more positive perceptions of their son or daughter's likely success in the transition

to adulthood. Higher performing individuals have more skills that should translate into more success in work and residential domains (White & Dodder, 2000). Moreover, it is possible that students with more skills received more transition-related programming in their schools, thereby building on and enhancing the skills that they already possessed.

In contrast, the weak predictive power of maladaptive behaviour was unexpected, because investigators of many previous studies have come to the conclusion that an individual's maladaptive behaviour is a more salient characteristic than his or her adaptive behaviour in determining parental adaptation and coping in many life phases (Floyd & Gallagher, 1997; Glidden & Schoolcraft, 2007; Hastings, 2003; Maes, Broekman, Došen, & Nauts, 2003; Ricci & Hodapp, 2003). In addition, high levels of maladaptive behaviours are frequent causes of difficulties in residential and job adjustment and success (Allen, 1999, 2000; Crocker, Mercier, Lachapelle, Brunet, Morin, & Roy, 2006; Schwartz & Rabinovitz, 2003), although not all studies have reported this finding (White & Dodder, 2000). In the current study, maladaptive behaviour predicted only the Positive Future Orientation scores, but neither Financial Independence nor Community Resources. We think, however, that it is premature to conclude that maladaptive behaviour is not related to these factors of the TDRWQ. As we noted in Glidden and Jobe (2007), the current sample did not include individuals with severe maladaptive behaviour problems. For example, the lowest score on the ABS-2 was attained by a 21-year old with an adaptive behaviour age equivalency of approximately 8 years. Her standard score was less than one standard deviation below the mean norms for the ABS-2, and although she engaged in problematic stereotyped behaviours she showed strengths in conformity and social

engagement. It is likely that only samples that show a wider range of performance on personal and social adjustment will find that maladaptive behaviour is strongly predictive of transition rewards and worries.

As hypothesized, both Neuroticism and Extraversion predicted transition rewards and worries in the expected directions. However, neither Community Resources nor Financial Independence was predicted by the personality variables. These two factors are likely more objective indicants of the community context and the level of functioning of the transitioning son or daughter than the more subjective perceptions that were tapped in the Positive Future Orientation and two Family Relations factors, each of which was significantly predicted by Openness. In addition, Family Relations with Siblings was also predicted by Neuroticism, but in the direction opposite of Openness. Thus, the mothers with the highest level of Openness and the lowest level of Neuroticism had or anticipated the fewest worries and most rewards in the domain of Family Relations with Siblings. Open individuals tend to be flexible and innovative in their thinking and actions and, therefore, are likely to be more tolerant of nontraditional and nonnormative outcomes as might be the case in families with a son or daughter with DD transitioning into adulthood.

Four of the five TDRWQ factors were significantly predicted by one of the earlier SWB outcomes. We had expected that SWB-CR would have more predictive power than either SWB-G or SWB-C, because it directly pertains to the child with DD, as does the TDRWQ. However, SWB-CR predicted only the Family Relations with Siblings factor. It is possible that it did not have more predictive power because of the six-year interval between the measurement of SWB-CR and the TDRWQ factors. On

average, the children were 11-12 years old at the time of SWB data collection, and 17-18 years old at the time of TDRWQ data collection. Changes in child behaviour would likely be substantial and dramatic during this six-year period, thus reducing the predictability of the earlier measure for the later ones. In contrast, SWB-G, which significantly predicted two of the TDRWQ factors, is likely to be much more stable over time. Future investigators might want to manipulate the specific time period over which predictions are to be made. We believe that either shorter intervals than the six years used, or ones in which child functioning is likely to be more stable, would result in better predictability for SWB-CR.

The only hypothesized predictor variable that did not significantly predict any of the five TDRWQ factors was earlier maternal depression as measured by the Beck Depression Inventory. Its bivariate correlation of -.24 with Positive Future Orientation was significant, but because depression scores were also correlated significantly with Extraversion (-.42), their shared variance resulted in a significant effect for Extraversion which was entered into the hierarchical regression first, and not for depression, entered subsequently. Our choice of entry was dictated by our conceptual thinking that personality is predisposing to specific mental health symptoms or conditions. However, in the community, depression might be more easily recognized by service providers and others who are likely to be familiar with its symptoms, so our recommendation would be to apply the results of the significant correlation rather than the more complex regression analysis.

Despite the significant predictions we obtained with earlier characteristics of both the mother and her transitioning son or daughter, most of the variance in each of the factors was unexplained.

Reasonably, concurrent factors are likely responsible for some of this variance, and future research should examine them in combination with variables from earlier points in time. Nonetheless, the value of predicting from past variables should not be underestimated, since it allows the possibility of change in a positive direction.

In sum, in the current study we have demonstrated that maternal perceptions of the transition process can be predicted from earlier maternal personality and well-being, and from child characteristics. This predictability could be quite useful for service provision. Transition planning should begin many years prior to the actual time when students with disabilities move from school to employment, from parental home to a different residential environment. Providers may typically focus primarily on the child's characteristics in developing the transition plan, and ignore parental variables. The current results suggest that this would be a mistake, given that maternal variables alone accounted for most of the predicted variance in each of the five factors of the TDRWQ.

References

- Allen, D. (1999). Success and failure in community placements for people with learning disabilities and challenging behaviour: An analysis of key variables. *Journal of Mental Health*, 8, 307-320.
- Allen, D. (2000). Recent research on physical aggression in persons with intellectual disability: An overview. *Journal of Intellectual & Developmental Disability*, 25, 41-57.
- Andrews, F. M., & Withey, S. B. (1976). Social indicators of well-being: Americans' perceptions of life quality. New York, NY: Plenum Press.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. Archives of General Psychiatry, 4, 561-571.

- Blacher, J. (2001). Transition to adulthood: Mental retardation, families, and culture. *American Journal on Mental Retardation*, 106, 173-188.
- Cameron, L., & Murphy, J. (2002). Enabling young people with a learning disability to make choices at a time of transition. *British Journal of Learning Disabilities*, 30, 105-112.
- Certo, N. J., Mautz, D., Smalley, K., Wade, H. A., Luecking, R., Pumpian, I., et al. (2003). Review and discussion of a model for seamless transition to adulthood. *Education and Training in Developmental Disabilities*, 38, 3-17.
- Cooney, B. F. (2002). Exploring perspectives on transition of youth with disabilities: Voices of young adults, parents, and professionals. *Mental Retardation*, 40, 425-435.
- Costa, P. T., & McCrae, R. (1992). Revised NEO Personality Inventory (NEO-PI-R) and NEO Five Factor Inventory (NEO-FFI) professional manual. Odessa, FL: Psychological Assessment Resources.
- Crocker, A. G., Mercier, C., Lachapelle, Y., Brunet, A., Morin, D., & Roy, M. E. (2006). Prevalence and types of aggressive behavior among adults with intellectual disabilities. *Journal of Intellectual Disability Research*, 30, 652-661.
- Flaherty, E. M., & Glidden, L. M. (2000). Positive adjustment in parents rearing children with Down syndrome. *Early Education and Development*, 11, 407-422.
- Floyd, F. J., & Gallagher, E. M. (1997). Parental stress, care demands, and use of support services for school-age children with disabilities and behavior problems. *Family Relations*, 46, 359-371.
- Glidden, L. M., Billings, F. J., & Jobe, B. M. (2006). Personality, coping style and well-being of parents rearing children with developmental disabilities. *Journal of Intellectual Disability Research*, 50, 949-962.
- Glidden, L.M., & Jobe, B.M. (2005). [Comparability of subjective well-being Faces and Delighted-to-Terrible scales.] Unpublished raw data.

- Glidden, L. M., & Jobe, B. M. (2006). The longitudinal course of depression in adoptive and birth mothers of children with intellectual disabilities. *Journal of Policy and Practice in Intellectual Disabilities*, 3, 139-142.
- Glidden, L. M., & Jobe, B. M. (2007). Measuring daily parental rewards and worries in the transition to adulthood. *American Journal on Mental Retardation*, 112, 275-288.
- Glidden, L. M., & Schoolcraft, S. A. (2003). Depression: Its trajectory and correlates in mothers rearing children with intellectual disability. *Journal of Intellectual Disability Research*, 47, 250-263.
- Glidden, L. M., & Schoolcraft, S. A. (2007). Family assessment and social support. In J.W. Jacobson, J. A. Mulick, & J. Rojahn (Eds.), Handbook of intellectual and developmental disabilities (pp. 391-422). New York: Kluwer Academic/Plenum.
- Goupil, G., Tassé, M. J., Garcin, N., & Doré, C. (2002). Parent and teacher perceptions of individualised transition planning. *British Journal of Special Education*, 29, 127-136.
- Hanley-Maxwell, C., Whitney-Thomas, J., & Pogoloff, S. (1995). The second shock: A qualitative study of parents' perspectives and needs during their child's transition from school to adult life. *The Journal of the Association for Persons with Severe Handicaps*, 20, 3-15.
- Hastings, R. P. (2003). Child behavior problems and partner mental health as correlates of stress in mothers and fathers of children with autism. *Journal of Intellectual Disability Research*, 47, 231-237.
- Hastings, R. P., & Taunt, H. M. (2002). Positive perceptions in families of children with developmental disabilities. *American Journal on Mental Retardation*, 107, 116-127.
- Hill, R. (1949). Families under stress. New York: Harper & Row.
- Individuals with Disabilities Education Improvement Act (IDEA). (2004). *Individuals with Disabilities Education Improvement Act of 2004* (Public Law 108-446). Washington, DC: US. Government Printing Office.

- Keogh, B. K., Bernheimer, L. P., & Guthrie, D. (2004). Children with developmental delays twenty years later: Where are they? How are they? American Journal on Mental Retardation, 109, 219–230.
- Kraemer, B. R., & Blacher, J. (2001). Transition for young adults with severe mental retardation: School preparation, parent expectations, and family involvement. *Mental Retardation*, 39, 423-436.
- Lambert, N., Nihira, K., & Leland, H. (1993). *AAMR Adaptive Behavior Scale: School [ABS-S:2]*. Austin, Texas: Pro-Ed.
- Maes, B., Broekman, T. G., Došen, A., & Nauts, J. (2003). Caregiving burden of families looking after persons with intellectual disability and behavioural or psychiatric problems. *Journal* of Intellectual Disability Research, 47, 447-455.
- McCubbin, H.I., & Patterson, J.M. (1982). Family adaptation to crises. In H. I. McCubbin, A. Cauble, & J. M. Patterson (Eds.), Family stress, coping, and social support (pp. 26-47). Springfield, IL: Thomas.
- McGrew, K. S., Johnson, D. R., & Bruininks, R. H. (1994). Factor analysis of community adjustment outcome measures for young adults with mild to severe disabilities. *Journal of Psychoeducational Assessment*, 12, 55-66.
- McIntyre, L. L., Kraemer, B. R., Blacher, J., & Simmerman, S. (2004). Quality of life for young adults with severe intellectual disability: Mothers' thoughts and reflections. *Journal of Intellectual & Developmental Disability*, 29, 131-146.
- McPherson, M., Weissman, G., Strickland, B. B., van Dyck, P. C., Blumberg, S. J., & Newacheck, P. W. (2004). Implementing community-based systems of services for children and youths with special health care needs: How well are we doing? *Pediatrics*, 113, 1538-1544.
- Morgan, R. L., Moore, S. C., McSweyn, C., & Salzberg, C. L. (1992). Transition from school to work: Views of secondary special educators. *Education and Training in Mental Retardation*, 27, 315–323.

- Nuehring, M. L., & Sitlington, P. L. (2003). Moving from high school to an adult vocational service provider. *Journal of Disability Policy Studies*, 14, 23-35.
- Ricci, L. A., & Hodapp, R. M. (2003). Fathers of children with Down's syndrome versus other types of intellectual disability: Perceptions, stress and involvement. *Journal of Intellectual Disability Research*, 47, 273-284.
- Schwartz, C., & Rabinovitz, S. (2003). Life satisfaction of people with intellectual disability living in community residences: Perceptions of the residents, their parents and staff members. *Journal of Intellectual Disability Research*, 47, 75-84.
- Seligman, M. E. P., & Csikszentmihalyi, M. (Eds.) (2000). Positive Psychology [Special issue]. American Psychologist, 55.
- Thorin, E. J., & Irvin, L. K. (1992). Family stress associated with transition to adulthood of young people with severe disabilities. *Journal of the Association of Persons With Severe Handicaps*, 17, 31-39.
- Thorin, E., Yovanoff, P., & Irvin, L. (1996). Dilemmas faced by families during their young adults' transitions to adulthood: A brief report. *Mental Retardation*, 34, 117-120.
- Washburn-Moses, L. (2006). Obstacles to program effectiveness in secondary special education. *Preventing School Failure*, 50, 21-30.
- White, D. A., & Dodder, R. A. (2000). The relationship of adaptive and maladaptive behaviour to social outcomes for individuals with developmental disabilities. *Disability & Society*, 15, 897-908.

Acknowledgement

This research was supported by Grant No. HD21993 from the National Institute of Child Health and Human Development of the United States and by faculty development grants from St. Mary's College of Maryland to the second author.