The Role of Conflict and Stress on Mental Health in Adults with DD

THESIS

Presented in Partial Fulfillment of the Requirements for the Degree Master of Arts in the Graduate School of The Ohio State University

By

Victoria Chavez

Graduate Program in Psychology

The Ohio State University

2017

Master's Examination Committee:

Susan Havercamp, Advisor

Katherine Walton

Marc Tasse
Abstract

The relationship between adults with developmental disabilities (DD) and their caregivers is as important as it is overlooked. This study explored the role of this relationship on the stress, social support, and mental health of adults with DD. First, the agreement between caregiver and adult with DD (self) report was found to be poor for stress, social support, mental health, and relationship conflict ratings. Stress predicted mental health ratings, and this relationship was moderated by caregiver conflict. An additional moderated moderation analysis revealed that the relationship between conflict, stress, and mental health varied at different levels of social support. The best mental health outcomes were reported for adults with DD who reported high levels of social support and low caregiver conflict, regardless of the amount of reported stress. These findings have important implications for developmental disability support planning.
Vita

June 2010 .........................................................Montwood High School

December 2013 ...............................................B.A. Psychology, Our Lady of the Lake University

August 2015 to present .................................Graduate Teaching Associate, Department of Psychology, The Ohio State University

Fields of Study

Major Field: Psychology
# Table of Contents

Abstract ........................................................................................................................................... ii

Vita.................................................................................................................................................... iii

Table of Contents ................................................................................................................................. iv

List of Tables ........................................................................................................................................ vii

List of Figures ...................................................................................................................................... viii

Chapter 1: Introduction ..................................................................................................................... 1

  Stress .............................................................................................................................................. 2

  Social Support ................................................................................................................................. 3

  Conflict.......................................................................................................................................... 3

  Sensitivity theory............................................................................................................................. 4

  Motivation Sensitivity....................................................................................................................... 4

Chapter Two: Methods ...................................................................................................................... 10

  Stress............................................................................................................................................ 10

  Mental Health ............................................................................................................................... 12
Social support ................................................................. 13

Reiss Motivation Profile .................................................. 14

Profile of Human Needs, Revised ....................................... 15

Recruitment ..................................................................... 17

Procedure ....................................................................... 18

Data Analysis .................................................................. 19

Chapter 3: Results ............................................................ 21

Participants ..................................................................... 21

Agreement of Reports ...................................................... 22

Stress ............................................................................ 22

Social Support .................................................................. 23

Mental Health .................................................................. 23

Conflict .......................................................................... 24

Importance of Stress and Conflict to Mental Health - Adult with DD Report .......... 25

Conflict as Moderator - Adult with DD Report ......................... 26

Adding social support to the model .................................... 29

Importance of Stress and Conflict to Mental Health - Caregiver Report ............... 33
Conflict as Moderator- Caregiver Report ........................................ 34
Adding social support to the model ........................................... 35
Motivational Differences Models .............................................. 38
Chapter 4: Discussion ............................................................... 41
Limitations and Future Directions ............................................ 44
References .............................................................................. 47
Appendix A: Demographic Forms .............................................. 52
Appendix B: Stress Measures .................................................... 54
Appendix C: Social Support Measures ....................................... 56
Appendix D: Conflict Measure .................................................. 60

vi
List of Tables

Table 1. Reiss Profile and Profile of Human Needs motives differences....................... 16

Table 2. Demographics of participants ............................................................................... 21

Table 3. Agreement between self and informant report. ..................................................... 25

Table 4. Descriptives of motives ........................................................................................ 38

Table 5. Regression models for individual motives............................................................. 39
List of Figures

Figure 1. Moderation model ................................................................. 28
Figure 2. Moderation graph: Adult with DD report.............................. 29
Figure 3. Moderated moderation model ............................................... 31
Figure 4. Moderated moderation graph: Adult with DD report ............ 32
Figure 5. Moderation graph: Caregiver report .................................. 35
Figure 6. Moderated moderation graph: Caregiver report .................. 36
Chapter 1: Introduction

The relationship between an adult with a developmental disability (DD) and his or her caregiver can be great for both people involved but also has the potential to be frustrating and difficult if the adult with DD and their paid caregivers do not share the same values and motivations. The caregiver is one of the most influential people in the life of the adult with DD, as they help to support them in their daily life. The amount of support the adult with DD requires is unique to the individual. The caregiver can positively or negatively influence the choices the adult with DD makes in their daily activities. If this relationship is stressed or dysfunctional, it may negatively impact life stress and mental health of the adult with DD.

Many adults with a developmental disability depend on paid caregivers to get through their day. Depending on the level of support needed, a caregiver is there when a adult with DD wakes up in the morning, helps them with their morning routine, helps them with household tasks, transports them to work, and is there with them in the evening to help prepare dinner and prepare for bed. Adults with DD rely on these caregivers a certain amount and spend a great deal of time with them. For these reasons, the adult-caregiver relationship is important. Therefore, great consideration should be given to the pairing of adults with DD and their caregiver to ensure a harmonious relationship; however this is often not the case.
This study will examine the adult-caregiver relationship, through both self report and caregiver report, by comparing individual motives, relationship conflict, and mental health outcomes for adults with DD.

Stress

As in the general population (O’Leary, 1990), negative mental health outcomes are linked to stress in adults with intellectual disability. Perceived stress has been linked to depressive symptoms, as well as additional mental health problems in adults with intellectual disability (Lunsky & Benson, 2001; Wigham, Hatton, & Taylor, 2011). Ongoing or continuous stressful social interactions can also lead to sustained depression over time (Hartley & MacLean, 2009). Also contributing to mental health issues are stressful one-time life events, which can lead to more mental health issues in individuals with an intellectual disability (Hatton & Emerson, 2004). Negative life events can also lead to more reports of behavioral problems in people with an intellectual disability as well as increase symptoms of depression (Esbensen & Benson, 2006). Stress comes from various sources including interactions with coworkers, supervisors, family, and friends. Among adults with intellectual disability, mental health disorders and relatively higher IQ are associated with more reported stress (Hartley & MacLean, 2009). In a large random sample of adults with DD, Scott & Havercamp (2014) found a significant relationship between stress and mental health problems. About 39% of their sample reported they had experienced at least one stressful life event, out of a list of thirteen stressful events. The authors reported that with each additional stressor reported, the probability of having a mental health problem increased by 20% (Scott & Havercamp, 2014). This study showed...
that stress is an important variable to consider in the life of an individual with developmental disabilities, as a possible risk factor for mental health issues. Minimizing stress should also be examined as a preventative measure for mental health issues in the lives of the individuals with developmental disabilities. Strategies may include providing adequate social supports and extra support during times of increased stress like transitions.

Social Support

While stress increases the risk of mental health problems, social support can buffer the impact stress can have. Some of the psychological benefits of social support include decreased risk of developing a mental health disorders. When a mental health disorder occurs social support is associated with an increased rate of recovery. For some psychological disorders, social support can serve as a great intervention to reduce symptoms (George, Blazer, Hughes, & Fowler, 1989; Kawachi, & Berkman, 2001; Kessler, Price, & Wortman, 1985). While the benefits of having social support are clear, adults with DD are typically lacking in this area of support, with most of their support coming from paid caregivers (Lippold & Burns, 2009). Adults with intellectual disability do not report a lot of social support from their family or friends (Lunksy & Benson, 2001). While adults with DD report that they have someone in their life that they can confide in, they are usually referring to their paid caregiver (Amado, Stancliffe, McCarron, & McCallion, 2013). Scott & Havercamp (2014) found that not having social support increased the likelihood of a mental illness diagnosis.

Conflict
Sensitivity theory.

Reiss and McNally (1985) proposed a theory of anxiety that posited two components to anxiety; “anxiety expectancy” and “anxiety sensitivity.” Anxiety expectancy is the learned process of associating a specific stimulus to anxiety. Anxiety sensitivity, however, is an individual difference in the belief that the experience of anxiety is dangerous and will lead to more anxiety or embarrassment or illness. Anxiety sensitivity is different from trait anxiety. Whereas trait anxiety is the fearful reaction to stressful stimuli, anxiety sensitivity is about the reactions to anxiety symptoms (McNally, 2002; Reiss, 1987, Reiss, 1991, Schmidt, Lerew & Jackson, 1995).

Motivation Sensitivity.

Expanding on the concept of anxiety sensitivity, Reiss and Havercamp (1996) proposed the sensitivity theory of motivation. Just as there are stable individual differences in anxiety sensitivity, there were proposed individual differences in other motives. This theory of motivation proposed sixteen basic desires or “end” motives inherent in every human being, with each human having individual differences (Reiss & Havercamp, 1998; Reiss & Havercamp, 1997). In discussing this theory, “means” are considered actions that produce something else compared to “ends” that are what we value for its own sake (Reiss, 2000). The difference in determining whether a behavior is a “means” or “ends” is distinguished by their purpose. For example, if a swimmer is swimming for fun, then swimming is considered the end. However, when a swimmer is competing, swimming is a means to an end, which would be competition (Reiss, 2000). Every fundamental desire motivates each person to a certain extent. For example, one
person may be motivated greatly by exercise, while another person may prefer to avoid exercise. These individual differences may reflect important drivers of human behavior. The motives that have higher set points are predicted to be more effective reinforcers. The motivating reinforcers with high set points suggest that a person will seek out this reinforcer more frequently and more persistently (Reiss & Havercamp, 1997). It is also important to consider the desires and motivates that have lower set points in order to understand the full person and what is important to them on a daily basis.

Reiss and Havercamp (1998) created an instrument, The Reiss Motivation Profile, to measure individual differences in motives and to test predictions of this new sensitivity theory. The profile includes items that ask how much a person likes and dislikes certain activities (Reiss & Havercamp, 1998). A second instrument was developed to measure these motives in people with intellectual disability. Adults with intellectual disability may be limited in their ability to self-report emotions and desires. For this reason, the Profile of Human Needs was developed as an informant report instrument. The items are worded differently from the self-report version to make it easier for informants to understand and give a valid report. The Profile of Human Needs items tap behaviors that are strong indicators of a motive (Reiss & Havercamp, 1998). Although developed independently, the Profile of Human Needs measures virtually the same fundamental motives as the self-report instrument, suggesting that the identified motives are indeed universal.

Caregiver Relationship Conflict.

In a study examining the perceived stress from social interactions, the stress associated with stressful social interactions accounted for 26% of the variance of stress in
the lives of individuals with developmental disabilities (Hartley & MacLean, 2009). Reducing the amount of stress coming from these social interactions, including those from caregivers, can decrease the amount of stress overall in the lives of adults with DD and therefore reduce the occurrence of psychological distress in this population.

Although there has been no published research matching paid caregivers with adults with DD on any characteristic, it seems important that the caregiver have similar desires and motives to the adults with DD that they are serving or at least appreciate and respect the adult’s values to minimize any conflict that could arise. The application of motivation sensitivity to housemate compatibility has been studied in adults with intellectual disability. The problem with choosing a proper housemate goes beyond the notion of the person having self-determination and the ability to choose their housemate, which may or may not be the case, but also reflects that this person has no idea how to choose someone who they can live with harmoniously (Wiltz & Reiss, 2003). One study examined dyads of housemates that lived with and without conflict. This study provided good preliminary support for the notion that differing motivation set points are associated with housemate conflict. If matching caregivers and adults with DD is not possible, moving towards an understanding the motives of the adult with DD can give caregivers a better understanding of their values and behavior.

Conflict arising from motivational differences with caregivers is hypothesized to likely cause stress for people with developmental disability. For example, a caregiver could see the adult with DD as lazy because the adult does not want to engage in any physical activity. Not understanding that the adult with DD is not motivated by physical
activity, the caregiver might force physical activity on the adult, making them unhappy. If the caregiver enjoys physical activity, it will be difficult for him to understand the adult with DD’s unhappiness. As another example, the caregiver could view the adult with DD as nosy because they are always asking questions and think that the adult is in their business. It could be that the adult with DD is highly motivated by curiosity and asks questions to satisfy this motive. The caregiver might frustrate this desire by telling them to stop prying. The caregiver plays such an important role in the lives of adults with developmental disabilities; if differing motives are prevalent in these relationships it is easy to see how “everyday tyranny” can run rampant in the lives of adults with intellectual disability. “Every day tyranny” as described by Reiss (2000), as trying to change an individual’s motives that differ from yours through pressure tactics. According to adults with DD, the most important caregiver qualities included “listens to me and takes me seriously,” “having the right ‘chemistry,’” and “allowing me to do things myself or solve problems by myself [if they have the capability to do so]” (Roeden, Maaskant, & Curfs, 2011). These qualities suggest a sense of independence and a desire for a healthy and fulfilling relationship with their caregiver.

There has been no research published on matching adults with DD and caregivers in an effort to make the relationship happy and healthy and productive for all. Nor has research been done to examine the conflict that may exist in this type of relationship. Reaching beyond developmental disability services to the broader research literature, it is difficult to find a relationship that parallels that of the caregiver and adult with DD. This relationship is unique in many ways. Caregivers are employed to support the adult but,
because of the nature of the work and the amount of shared time, the relationship is often personal as well as professional. Adults with DD often see the caregivers as friends or advisors for daily living. This relationship may also be compared to that of an employee and supervisor or perhaps that of a student and teacher (Roeden, Massskant, Koomen, Candel & Curfs, 2012), although neither captures the exact type of relationship that exists between an adult with DD and a caregiver. The caregiver is neither a boss nor is the adult with DD a student, but instead an adult trying to be as independent as possible. However, the student-teacher relationship is similar in many ways to the adult with DD-caregiver relationship.

The relationship that exists between student and teacher is extremely important in the child’s development and learning outcomes. If the relationship between student and teacher is ridden with conflict, it could affect how the student perceives school and their level of engagement (Birch & Ladd, 1997). Supportive teacher and school environment is predictive of better academic performance, engagement in school, and student attitude towards school. When a student has a teacher that is supportive of them, it creates a safe place for the student that encourages and supports their ability to be self-directed and responsible for themselves in their classroom (Birch & Ladd, 1997). Hughes (2011) found that child reports of their relationships with their teacher uniquely predicts the child’s view on their competency in school, their sense of belonging as well as their math achievement. This means that when a child felt like they has the support of their teacher, they were more likely to take on challenges in math, stay motivated longer, and view themselves as competent. A relationship that is negative and characterized by conflict and
over-dependency was predictive of negative academic and behavioral outcomes (Hamre & Pianta, 2001). Even more than academic outcomes, negative student-teacher relationships predicted many behavioral problems in students including suspension from school. Hamre and Pianta (2001) demonstrated the importance of having a good teacher-student relationship to support the student’s socio-emotional development and academic success.

This study will explore adult-caregiver conflict in relationship to mental health, stress, and social support of adults with DD. My hypotheses for the study are as follows:

1. Adults with DD and caregivers will agree on reports of mental health, stress, social support and relationship conflict.
2. Relationship conflict will significantly moderate the relationship between stress and mental health for adults with DD.
3. Social support will moderate the effects of conflict on mental health symptoms reported.
4. Motivational differences between adult and caregiver will predict conflict.
Chapter Two: Methods

Measures

Demographic Information

A demographic questionnaire, which is available in Appendix A, was created to gather information about adults with DD including age, living status, employment status, and their level of support. The caregivers were also asked to fill out their own demographic form determining their age, how long they have worked with the person with DD, and their highest level of education.

Stress

The Lifestress Inventory is a 30-item checklist of stressful life events used specifically for adults with ID (Bramston, Bostock, & Tehan, 1993). The checklist was developed for people with mild intellectual impairment and can be found in Appendix B of this document. The Lifestress Inventory has good psychometric properties with a Chronbach’s alpha of .80, and its validity was confirmed by comparing other well-established stress scales (Bramston & Bostock, 1994). The scale has been shown to have three different factors of stress: general anxiety, negative interpersonal interactions, and lack of skills and coping behavior (Bramston & Fogarty, 1995).

Conflict

The Student-Teacher Relationship Scale (STRS; Pianta, 2001) was used to quantify the conflict in the relationship between the caregiver and adult with DD, which
consists of 28 items on a 5-point Likert scale. A copy of this measure can be found in Appendix D of this document. The STRS was originally developed to quantify and examine the teachers’ perception of their relationship with students individually ranging from the preschool aged through 3rd grade (ages 4-8) and it was been normed on over 1,500 students and has been shown to have good reliability and stability (Pianta, 2001).

The STRS measures the following three dimensions: conflict, closeness and dependency. The dimensions of conflict and dependency are viewed as negative dimensions of a student-teacher relationship, whereas the closeness dimension measures positive aspects of the relationship. The overall composite score yielded from the STRS explains the amount of positivity and overall positive quality of the relationship. The STRS was validated among a German sample of teachers and students in special education and the factor structure was identical to the factor structure among the teachers that taught typically developing students (Dekker, 2008). In Italy, a group also looked at the STRS in relation to student with different special needs including learning disorders, autism and Down syndrome. They found the psychometric properties similar to in typically developing students, except for those students with autism who differed significantly on the closeness dimension (Prino, Pasta, Gastaldi, & Longobardi, 2014).

In 2011, a group from the Netherlands used the STRS to examine the adult with ID-caregiver relationships and to see whether the STRS was able to capture valid information about the relationship and to confirm the factor structure in this sample (Roeden, Massskant, Koomen, Candel & Curfs, 2012). They found good reliability and
good internal consistency on the STRS and deemed it suitable to use in the adult with ID-caregiver context (Roeden, Massskant, Koomen, Candel & Curfs, 2012).

In this study, the caregiver completed the STRS in order to gauge the amount of conflict they perceive in the relationship with the adult with DD. In order to also get the perspective of the adult with DD, this study adapted the STRS for use by adults with DD. This allowed for comparison between caregiver and adult’s perception of conflict.

Mental Health

A self-report instrument and a caregiver instrument measured mental health symptoms in order to explore the agreement between these two sources. The Brief Symptom Inventory (BSI; Derogatis, 1983) was used to obtain self-reported mental health symptoms from adults with DD. This measure is available through Pearson Publishing. The BSI is a short form used for screening based on the Symptom Checklist-90-R (Derogatis, 1996). The BSI was found to have acceptable internal consistency and construct validity with people without disabilities (Boulet & Boss, 1991). This scale has also been used in ID, although not as extensively. Kellet et al., (2003, 2004) evaluated the use of the BSI in people with ID in two studies. The authors reported that people with ID responded appropriately to the items on the BSI, and responses differentiated adults with and without mental health problems. The authors also found acceptable internal consistency among adults with ID.

For this particular study, there were alternate consistent phrasings of the BSI questions administered, after the first few participants had difficult comprehending what was being asked of them. The researchers attempted to create alternate phrasing in order
to ensure participants really understood what the questions were asking of them. These alternate phrasing were only administered if the participant asked what the question was asking and asked for clarification.

Caregivers completed the PAS-ADD Checklist, which is a 25-item screening tool, derived from the full-length interview, used to screen for mental health disorders in people with ID (Moss, Goldberg, Patel, Prosser, Ibbotson, Simpson & Rowe, 1995). The PAS-ADD Checklist, available through Pavilion, has three subscales measuring affective or neurotic disorder, organic conditions including dementia, and psychotic disorders. The PAS-ADD Checklist also includes cut off scores to help with interpretation (Prosser, Costello, Simpson & Patel, 1998). The first study using the PAS-ADD, reported good validity and subsequent studies have reported similar psychometric properties (Prosser, Costello, Simpson & Patel, 1998; Hatton & Taylor, 2008; Sturney, Newton, Cowley, Bouras, & Holt, 2005). Norms were established in a large group of patients with ID in community and hospital settings (Taylor, Hatton, Dixon & Douglas, 2004).

**Social support.**

The Lunsky and Benson (1997) version of the Social Support Self Report (SSSR), available in Appendix C, was used to gather the adult with DD reports of the amount of support they receive from the social relationships in their life. The SSSR asks about support from family, paid caregivers, friends, and significant others. The SSSR was adapted from the Reiss-Peterson Social Support Self-Report for Mentally Retarded Adults (Reiss & Benson, 1985) by Lunsky and Benson (1997) to include paid caregivers. The SSSR has been found to have fair internal consistency. The amount of perceived
social support measured by the SSSR has been significantly correlated with other self-report scales as well as overall quality of life (Lunsky & Benson, 1997; Lunsky & Benson, 2001). For these analyses, only reports of social support from family, friends and significant others will be considered.

In order to measure staff perception of social support, the Social Circles Questionnaire (SCQ) was used. The SCQ is scale used to collect social support information via staff report of individuals with ID (Lunsky & Benson, 1999). It measures both size and the quality of support given by friends, family, staff, and romantic partners. The authors reported good internal consistency and test-retest reliability, and moderate interrater reliability in the initial study. In a second study, the same authors reported that the SCQ was correlated with both other staff social support measures and self-report measures of social support (Lunsky & Benson, 1997).

Reiss Motivation Profile

The Reiss Motivation Profile is a self-report measure developed to quantify individual differences in the fundamental motives proposed by Reiss and Havercamp (1996,1997). The Reiss Motivation Profile asks people how much they like and dislike certain activities in 120-items and is available through IDS Publishing. In 1998, Reiss and Havercamp explored the factor structure of their measure in four different studies to establish the 15 factors measured by the Reiss Motivation Profile, with the Chronbach’s alpha ranging from .74-.92 (Reiss& Havercamp, 1998). The Reiss Motivation Profile has undergone four factor analyses, two test-retest reliability studies, two assessments of internal reliability and an assessment of concurrent validity all of which support the
reliability and validity of the Reiss Motivation Profile are valid (Havercamp & Reiss, 2003).

Profile of Human Needs, Revised

The Profile of Human Needs, Revised was developed in 1998 concurrently with the Reiss Motivation Profile to measure motivation in the population of adults with intellectual disabilities (Reiss & Havercamp, 1998). This 100-item measure is to be filled out by caregivers or teachers of those with an intellectual disability and is also available through IDS Publishing. The factors measured by the Profile of Human Needs, Revised are similar to those measured by the self-report Reiss Motivation Profile (see Table 1). Confirmatory factor analysis determined the factor structure of the Profile of Human Needs, Revised as reliable with Chronbach alpha above .80 for most items. The factor analysis also confirmed similar results as the self-report version of the Reiss Motivation Profile (Reiss & Havercamp, 1998). Lecavlier & Havercamp (2004) explored the validity of caregiver reports on the Profile of Human Needs, Revised and at the inter-rater reliability of the scales. The results showed good internal consistency similar to those found in Reiss and Havercamp (1998), excellent validity but significant variability on the inter-rater reliability on the 15 subscales with an average ICC at 0.52 (Lecavlier & Havercamp, 2004). The researchers’ conclusion on the variability of inter-rater reliability is the importance of having the right person fill out the motivation measure because different caregivers in the life of the person with intellectual disability may have different impressions of the motives driving the individual with disability. Table 1 compares the
factors of the Reiss Motivation Profile and the Profile of Human Needs, Revised showing the similar and differing motivations that each one measures.

<table>
<thead>
<tr>
<th>Motives</th>
<th>Reiss Motivation Profile</th>
<th>Reiss Profile of Human Needs Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Curiosity</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2. Food</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>3. Honor (morality)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4. Rejection</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5. Sex</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>6. Physical Exercise</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>7. Order</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8. Independence</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>9. Vengeance</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>10. Social Contact (attention)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>11. Citizenship (helps others)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>12. Saving</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>13. Family</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>14. Social Prestige</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>15. Power</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>16. Aversive Sensations</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>17. Anxiety Sensitivity</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>18. Pain</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>19. Frustration</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

Table 1. Reiss Profile and Profile of Human Needs motives differences

Participants

DD participants were eligible for the study if they had a developmental disability, were 18 years of age or older and able to answer questionnaires either verbally or in writing. Guardianship status was neither an inclusion nor exclusion criteria for
participation. Caregiver participants were adults providing care for the participants with DD. The caregivers could be family members or those paid caregivers employed in a day service programs or residential settings. To be eligible to participate in the study, caregiver must have known the DD participant for at least three months.

Recruitment

The recruitment of participants and data collection was conducted in collaboration with a doctoral student of the Intellectual Developmental Disability psychology program at Ohio State University. Participants were recruited through the Franklin County Board of Developmental Disabilities (FCBDD), Licking County Board of Developmental Disabilities (LCBDD), Delaware County Board of Development Disabilities (DCBDD), Nisonger Behavior Support Services, Nisonger Research Registry, and other residential and day programs in Franklin County. The corresponding County Boards of Development Disabilities are agencies that provide support to adults and children with developmental disabilities that live in the county, including service coordination, residential supports, therapy, community employment, and recreation opportunities. The participating Boards of Developmental Disabilities presented recruitment materials to adults that met the criteria for inclusion. Local agencies such as the Nisonger Behavior Support Services and other residential and day programs were contacted and presented with information regarding this study and, if they were willing to participate, were asked to distribute study information to individuals with DD and their caregivers. If the individuals with DD indicated interest in participating in the study, their contact information was shared with the researchers.
Procedure

The researchers received IRB approval through The Ohio State University and were approved to recruit and contact individuals with DD who were interested in participating by telephone. If the individual had a guardian, the guardian was contacted first to explain the study, answer questions, and obtain informed consent. The consent forms reviewed the purpose, methods, and risks associated with the study. When the guardian gave informed consent, or if the adult did not have a guardian, the researcher contacted the adult with DD by telephone and scheduled an appointment to meet in person. The appointment was scheduled at a time and place convenient to the adult with DD. During the appointment, informed consent was obtained from individuals who were their own guardian or, if the guardian had already given consent, assent was obtained. The adult participant was asked to identify a caregiver to participate in the study and complete the surveys. After consent/assent was obtained, the individual with DD completed the following questionnaires: (1) Demographic form, (2) Brief Symptom Inventory, (3) Lifestress Inventory, (4) STRS- adult with DD version. The researcher read the questions and response options aloud and recorded responses from the participant. Completion of these surveys took about one hour and twenty minutes. Participants were compensated for their time with a $15 gift card to Walmart or Target, regardless of whether or not they completed all of the surveys.

After obtaining consent from the caregiver, the following questionnaires were completed: (1) Caregiver Demographic form, (2) Reiss Motivation Profile, (3) PAS-ADD Checklist, (4) Lifestress Inventory- informant version, (5) STRS and (6) Profile of
Human Needs. Caregivers were asked to complete their questionnaires in a separate room while the individuals with DD completed their own questionnaires. Caregivers who participated in the study were compensated with a $15 gift card to Walmart or Target, regardless of whether they completed all of the surveys. The total time the caregivers needed to complete these forms was about one and a half hours.

Data Analysis

Because reports of conflict, stress, and mental health were gathered from both caregivers and adults with DD the first set of analyses explored the agreement between these sets of reports. If the reports were similar, the caregiver scores would have been used for all regression analyses to keep the information source consistent. A self-report version is not available for the Reiss Profile. However, when the reports of conflict, stress and mental health varied greatly between caregiver and adult with DD. Moving forward separate analyses were done on each of the reports to determine the similarity in patterns between the reports.

OLS regression was used to determine whether or not stress and conflict can significantly predict mental health symptoms, first individually and then in a hierarchical model. Then a moderation model was used to explore whether or not conflict can moderate the impact of stress on the amount of mental health symptoms reported. A moderation analysis was used to determine if conflict varies the amount of mental health symptoms reported based on the level of stress. A moderated moderation was conducted to determine the impact of social support on the moderation model previously run.
In order to quantify the motivational differences in the adult with DD and their caregiver, a Motivational Difference Score was calculated for the eleven scales (motives) that are similar on the adult with DD and caregiver version of the Reiss Profile. This score was computed from the difference between the adult and caregiver standard score on each of the common factors. The absolute values of each of the 11 differences were added to create a Motivational Difference score for the adult with DD/caregiver dyad. The motivational difference score was used to examine the association between conflict, stress and mental health using logistic regression.

A hierarchical regression model was used to examine the relationship between the total motivation difference score, conflict, and stress in explaining mental health. Moderation analysis will also be used to examine the extent to which the relationship between conflict and mental health depends on the total motivation difference score. All of the moderation analysis was conducted using PROCESS (Hayes, 2013).
Chapter 3: Results

Participants

The sample collected consisted of 109 adults with a developmental disability and 83 caregivers. Four of the caregivers were parents of the adults with DD; the remainders were paid caregivers. Although the initial plan was to obtain an equal numbers of adults with DD and caregivers, there were some difficulties in getting caregivers to complete the research protocol. The analyses were adequately powered based on a power analysis. With the initial data analyses run with the caregivers’ data, which was only the motivational difference regression, the post hoc power is (d=.20). This effect size falls in between the small and medium range (Cohen, 1992). Because the analyses were adequately powered, it was determined that it was sufficient enough to stop data collection, even with uneven sample sizes. Demographics for participants with DD and caregivers are presented in Table 2.

<table>
<thead>
<tr>
<th></th>
<th>Adult with DD (n=109)</th>
<th>Caregiver (n=83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Age (years)</td>
<td>38</td>
<td>44</td>
</tr>
<tr>
<td>Gender - Males</td>
<td>64%</td>
<td>39%</td>
</tr>
<tr>
<td>Average Years Known</td>
<td>3 years (Range: 6 months-15 years)</td>
<td></td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>78%</td>
<td>45%</td>
</tr>
<tr>
<td>African American</td>
<td>21%</td>
<td>47%</td>
</tr>
<tr>
<td>Bi-racial</td>
<td>0%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Table 2. Demographics of participants
Table 2 continued

<table>
<thead>
<tr>
<th>Education</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Diploma</td>
<td>51%</td>
</tr>
<tr>
<td>Associates Degree</td>
<td>18%</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>23%</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>1.3%</td>
</tr>
<tr>
<td>PhD</td>
<td>1.3%</td>
</tr>
<tr>
<td>Professional Degree</td>
<td>3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Living Situation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>With a roommate</td>
<td>46%</td>
</tr>
<tr>
<td>Alone</td>
<td>23%</td>
</tr>
<tr>
<td>With Family</td>
<td>20.4%</td>
</tr>
<tr>
<td>Group Home</td>
<td>7.4%</td>
</tr>
<tr>
<td>With a partner</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

Agreement of Reports

The first analyses tested the agreement between the caregiver and adult with DD reports on key outcome measures. If adult with DDs and caregivers differ significantly on reported life experiences (stress, social support, conflict, mental health) of the adult with DD, two separate analyses were run to examine the similarities and the differences between reports.

Stress.

The reports, both self-reported and caregiver reported, for the amount of stress the adult with DD was experiencing were measured using the Life Stress Inventory. The caregiver report allowed for the paid caregiver to report whether the adult with DD was dealing with the stressor “all the time,” “sometimes” or “not at all,” whereas the adult with DD report had only “yes” and “no” response options. To make these scales directly
comparable, we combined “sometimes” and “all the time” on the caregiver report so that both scales were binomial. The average amount of stress reported by adult with DDs was 19.08 (SD= 2.82) with scores ranging from 12 to 26. The average amount of stress reported by caregivers was 22.14 (SD= 3.69) with scores ranging from 0 to 30. Although these averages appear similar, the correlation between adult with DD and caregiver scores was not significant, $r(82)=.079, p=.529$. Since stress is considered a subjective construct, it is not surprising that caregiver reports did not agree with self-reported stress.

**Social Support.**

Social support for adult with DD was gathered from self-report and caregiver report. As stated earlier the social support scales gathered information on family, caregivers, friends and significant other. In this initial analysis, the agreement for the caregiver support was factored out and analyzed separately because in this correlation the paid caregivers would be reporting their views on the amount of support they themselves were providing the adult with DDs. The relationship between adult with DD and caregiver’s perspective was not significant, $r(82)=.035, p=.757$. This result suggested that adult with DDs and caregivers do not agree about the support given by caregivers. It is possible that caregivers overestimated the about of support they themselves give to adults in their care. The caregiver support factor was excluded from analyses. Agreement between adult and caregiver ratings of social support from family, friends and romantic partners was significant, $r(82) = .416, p<.001$. This suggested that caregivers could reliably report on social support, at least from sources other than themselves.

**Mental Health.**
The BSI (self-report) and PAS-ADD Checklist (informant report) mental health total scores were not highly correlated (see Table 3), $r(82) = .204$, $p = .068$. For both of the mental health measures, the total scores were converted to z scores, based on the average and standard deviation from the sample obtained. The purpose of converting the mental health total scores was to directly compare self-reported mental health rating (BSI) to informant report (PAS-ADD).

Conflict.

Conflict between adult with DD and caregiver was measured using the Student-Teacher Relationship Scale (STRS). The current Student-Teacher Relationship Scale was modified by rephrasing and shortening items that created a version of the scale that could be used with the adults with DD. A confirmatory factor analysis (CFA) was conducted to verify a similar three-factor structure consisting of closeness, dependency, and conflict. Based on the fit indices from SPSS (2015) for the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was equal to .691 which falls in the mediocre range (Kaiser, 1974) and the Bartlett’s test of sphericity was >.01 which is significant, where anything less than .05 is acceptable (Bartlett, 1937). Only conflict scores were used in these analyses. Caregiver and adult with DD reports of relationship conflict were not significantly correlated, $r(82) = .044$, $p = .698$.

When taking into account the conflict scores, it was of interest to examine how long the caregivers reported that they have been working with the adult with DD. It was hypothesized that length of time the dyads worked together would be negatively correlated with conflict scores. Based on the adult with DD report, conflict was
relationship duration was negatively, but not significantly, correlated, $r(65) = -0.058$, $p = 0.646$. Similar findings emerged from caregiver report. The correlation between caregiver reported conflict and the length of relationship that they had with their adult with DD was also negative, $r(64) = -0.103$, $p = 0.418$.

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Construct</th>
<th>Agreement</th>
<th>Correlation (p value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Stress Inventory - Adult with DD</td>
<td>Stress</td>
<td>No</td>
<td>0.08, $p = 0.40$</td>
</tr>
<tr>
<td>Life Stress Inventory - Caregiver</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brief Symptom Inventory (BSI)</td>
<td>Mental Health</td>
<td>No</td>
<td>.20, $p = 0.068$</td>
</tr>
<tr>
<td>PAS-ADD Checklist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Support Self Report (Adult with DD)</td>
<td>Social Support</td>
<td>Yes</td>
<td>.41, $p &lt; 0.001$</td>
</tr>
<tr>
<td>Social Circle Questionnaire (Caregiver)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STRS- Modified (Adult with DD)</td>
<td>Conflict</td>
<td>No</td>
<td>.20, $p = 0.068$</td>
</tr>
<tr>
<td>STRS (Caregiver)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Agreement between self and informant report.

Based on the overall poor agreement between the adult with DD and caregiver, see Table 3, we decided to run two separate analyses, using the same variables on each report, self and informant. There is an assumption that the adult with DD is the more accurate reporter of his or her own subjective internal states although the accuracy of their reports cannot be confirmed. The only exception was with Reiss Motivational Profile, which is only available in an informant-report version.

Importance of Stress and Conflict to Mental Health- Adult with DD Report
Regression models were performed to determine the importance of adult with DD-caregiver conflict in regards to adult with DD mental health symptoms and stress.

First, we found that stress explained a significant proportion of the variance in mental health symptoms, $R^2 = .089$, $F(1,106)=10.299$, $p=.002$, per adult with DD report.

Next, an OLS regression indicated that conflict reported by the adult with DD explained 4% of the variance in mental health symptoms, which was statistically significant, $R^2 = .047$, $F(1,106)=5.083$, $p=.026$.

A hierarchical regression model with conflict and stress found that the two variables explained a significant variance in mental health, $F(2, 103)=6.65$, $p=.002$. Stress alone explained 8% of the variance, and the addition of conflict was not statistically significant. Having both stress and conflict in the model explained 11% of the variance in mental health. These finding indicate that both stress and conflict explain mental health symptoms but, combined, stress had a greater impact on the amount of mental health symptoms reported.

Conflict as Moderator-Adult with DD Report

The previous regression models implicated life stress and adult with DD-caregiver conflict as significant in explaining the amount of mental health symptoms reported. Moderation analysis added to these findings by explaining the conditions that facilitate or enhance the effect of one construct on another. In this case, moderation analysis helped to determine the degree to which the effect of stress on mental health varied by the amount of conflict in the relationship. In this model, conflict was used as a moderator because, as discussed earlier, providers and system factors may have some control as to how much
conflict exists in a relationship by making better matches between adults with DD and caregivers. The hypothesis for this moderation analysis was that the amount of mental health symptoms reported is a function not only of the amount of stress in their lives, but is also a function of the amount of conflict in the relationship.

The first moderation model using PROCESS (Hayes, 2013) Model 1 was based on the amount of stress in the relationship explaining the amount of mental health symptoms at different levels of conflict in the relationship (See Figure 1). In this model, conflict was the moderator as to imply that the amount of conflict in the relationship enhances the effects of stress on mental health symptoms. The model used three levels of conflict, low, average, and high. Cut points to determine these levels were made at one standard deviation above and one standard deviation below the mean on conflict. The moderation model using adult with DD reports of daily stress, conflict, and mental health was significant $F(1, 102)=4.65, p=.004$, explaining 12% of the variance. As shown in Figure 2, the amount of mental health symptoms depended on the amount of conflict in the relationship. What this implies is that high levels of stress and high levels of conflict were associated with high levels of reported mental health symptoms. Mental health symptoms were lowest when there were low levels of conflict and low levels of stress. However, even when stress was low, high levels of conflict were still associated with more mental health symptoms. The interaction between conflict and stress was significant only at certain levels of conflict. When conflict was low in the relationship, the result was not significant, $t(102)=1.62, p=.106$. When conflict was in the average range or in the high range, the interaction was significant, $t(102)=2.86, p=.0051$ and $t(102)=2.51,$
$p=.013$, respectively. What this implies is that conflict moderates or enhances the effects of stress on mental health but only at higher levels of stress and conflict.

![Figure 1. Moderation model](image)

Figure 1. Moderation model
Adding social support to the model.

The next model that was run was a moderated moderation to explore the role of social support on the stress-conflict-mental health relationship (see Figure 4). A moderated moderation examines even further the relationship between conflict and stress and the amount of mental health symptoms reported. We next added social support into the model to see if it moderated the effect that conflict on the overall model of mental health symptoms reported. The overall model was significant, explaining 14% of the variance in the model, $f(7,98)=2.35$, $p=.028$, which indicates that outside social support significantly moderates the effect of conflict, however only at certain points (See Figure 5). Not all levels of stress, conflict and social support significantly predict mental health.
symptoms. When social support is low and when conflict is in the average range, the model significantly predicted mental health symptoms, \( t(98)=2.09, p=.03 \). The model was also significant when social support was in the average range, and conflict was in the average \( t(98)=3.02, p=.003 \), or high range, \( t(98)= 2.43, p=.0166 \). When social support is high and conflict was in the average range the model was significant, \( t(98)= 2.13, p=.0357 \). Finally, when social support was low and conflict was high the conditional effects were not significant. This finding suggests that a low level of social support did not buffer the impact of stress on mental health when adult with DD-caregiver conflict was high, indicating the strong impact of conflict in this relationship despite social support.

Not surprisingly, mental health symptoms were lowest when social support was high, conflict was low, and stress was low. In this case social support functioned as expected to buffer mental health symptoms. Examining Figure 5, low levels of social support had no impact on mental health symptoms regardless of the level of stress and conflict. Indeed, when social support was low, low stress predicted low mental health symptoms, and high stress predicted high mental health symptoms, regardless of the amount of conflict in the relationship, indicating the importance of social support. When social support was at its highest, high levels of conflict, and high levels of stress predict higher levels of reported mental health symptoms. Surprisingly, mental health symptomatology was highest when social support was high and conflict was high. This unexpected finding may reflect high levels of social strain instead of true social support. Social strain occurs when the social support and interpersonal interactions that are
supposed to be supportive and helpful, instead leads to distress in the person (Rook 1984). The SSRQ does not disentangle stressful and supportive social relationships.

Figure 3. Moderated moderation model
Figure 4. Moderated moderation graph: Adult with DD report
Figure 4 continued

Importance of Stress and Conflict to Mental Health - Caregiver Report

The same analyses were run on the caregiver reports of stress, conflict and mental health symptoms in the adult with DD. Similar to self-report, caregiver reports of stress explained a significant proportion of the variance in the mental health symptoms of adults with DD, $R^2 = .049$, $F(1, 80)=4.16$, $p=.045$.

The next step was to determine if caregiver reported conflict predicted mental health symptoms. Similar to the self-report, caregiver report also significantly explained the variance in mental health symptoms reported, $R^2 = .104$, $F(1, 79)=9.135$, $p=.003$. 
The next analysis was a hierarchical regression adding both conflict and stress into the model and determining if both were still able to predict mental health symptoms seen in the adult with DD. Similar to self-report findings, the model using caregiver report was also significant, explaining 11% of the variance, \(R^2 = 0.116\), \(F(1, 80) = 5.103\), \(p = 0.008\).

Conflict as Moderator- Caregiver Report

Analyses were run to determine whether caregiver reported conflict moderated the relationship between caregiver reported stress and mental health symptoms. The model overall was significant in predicting mental health symptoms, \(R^2 = 0.121\), \(F(3, 77) = 3.533\), \(p = 0.0186\), as seen in Figure 3. However there were no significant interactions between the different levels of stress, conflict and mental health. This means that throughout all of the levels, the patterns are the same and the trends are the same, unlike the moderated findings based on self-report data.
Adding social support to the model.

A moderated moderation was run to examine the relationship between conflict, stress and mental health, with social support an additional moderator in the equation. In this moderated moderation, the social support measure excluded the caregiver’s report on the support they themselves provide. The overall model did not significantly predict mental health symptoms, $R^2=.15$, $F(7,72)=1.87, p=.085$. There were also no significant interactions between the constructs in the moderated moderation at any level of the social support or conflict. Although looking at Figure 6, the trends look similar among the reports of conflict, social support and mental health symptoms.
Figure 6. Moderated moderation graph: Caregiver report
Figure 6 continued

**Average Social Support**

![Graph showing average social support across different levels of stress and mental health symptoms with conflict levels.

**High Social Support**

![Graph showing high social support across different levels of stress and mental health symptoms with conflict levels.]
Motivational Differences Models

These findings highlight the importance of having a good adult with DD-caregiver relationship for the mental health of individuals with developmental disabilities. Our next step was to determine whether or not certain motivations predict conflict in the relationship. In order to compare motivational profiles, we used caregiver reports on their own motives and caregiver reports of adult with DD’s motives because no self-reported motivational profile exists for adults with DD. The next steps were to determine if total motivational differences could explain conflict.

The 11 motivation factors that are found on both scales were converted into z scores and the difference score was computed for each of the 11 factors. The absolute values of the difference scores were then combined to create a total motivational difference for each adult-caregiver pair. The range on the difference scores was 4.84 to 14.33 with the average being 8.44. Table 4 lists the information over all 11 motives and the total discrepancy score including the average and range.

<table>
<thead>
<tr>
<th>Motives</th>
<th>Average</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Motivation Difference</td>
<td>8.44</td>
<td>4.84-14.33</td>
</tr>
<tr>
<td>Curiosity</td>
<td>.87</td>
<td>.01-2.18</td>
</tr>
<tr>
<td>Food</td>
<td>.63</td>
<td>.01-1.91</td>
</tr>
<tr>
<td>Honor (Morality)</td>
<td>.69</td>
<td>.03-2.35</td>
</tr>
<tr>
<td>Rejection</td>
<td>.73</td>
<td>.03-2.01</td>
</tr>
<tr>
<td>Sex</td>
<td>.80</td>
<td>.00-2.24</td>
</tr>
<tr>
<td>Physical Exercise</td>
<td>.57</td>
<td>.03-2.87</td>
</tr>
<tr>
<td>Order</td>
<td>.77</td>
<td>.04-2.24</td>
</tr>
</tbody>
</table>

Table 4. Descriptives of motives
Table 4 continued

<table>
<thead>
<tr>
<th></th>
<th>Caregiver Report</th>
<th>Adult with DD Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Difference Score</td>
<td>$F(1,75)=5.501; p=0.022**$</td>
<td>$F(1,74)=0.14; p=0.906$</td>
</tr>
<tr>
<td>Curiosity</td>
<td>$F(1,75)=1.105; p=0.296$</td>
<td>$F(1,74)=1.095; p=0.299$</td>
</tr>
<tr>
<td>Food</td>
<td>$F(1,75)=1.371; p=0.245$</td>
<td>$F(1,74)=0.914; p=0.342$</td>
</tr>
<tr>
<td>Honor</td>
<td>$F(1,74)=0.013; p=0.911$</td>
<td>$F(1,73)=0.707; p=0.403$</td>
</tr>
<tr>
<td>Rejection</td>
<td>$F(1,75)=3.57; p=0.063$</td>
<td>$F(1,74)=0.086; p=0.771$</td>
</tr>
</tbody>
</table>

Table 5. Regression models for individual motives

The total motivational difference did not significantly predict self-reported conflict in the adult-caregiver relationship $F(1,74)=0.014; p=0.906$. Motivational difference did predict caregiver report of conflict; however, the Beta Coefficient was negative, $\beta=-0.121$, $F(1,75)=5.501$, $p=0.022$. This statistic and relationship is interesting because it suggests that as the difference in motives goes up, the amount of conflict goes down and vice versa. We explored the degree to which each individual motive difference predicted self- and caregiver reported conflict in a series of regressions. The majority of the models were not significant. The total difference score and differences on two motives that significantly predicted conflict but again with negative Beta coefficients. Social Contact/Attention predicted caregiver report of conflict and independence predicted self-reported conflict. Table 5 lists out the results of those regression models.
An additional analysis was run to examine the total motivational difference and how long the caregivers were working with the adult with DD. We predicted that relationship length (the amount of time that the dyads work together) would be negatively correlated with motivational difference. This prediction was based on the assumption that people that do not get along well will end up going their separate ways. The correlation was not significant, $r(59)=.184, p=.162$. 

**Table 5 continued**

<table>
<thead>
<tr>
<th></th>
<th>$F(1.75)=.623; p=.433$</th>
<th>$F(1.74)=.061; p=.806$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Exercise</td>
<td>$F(1, 75)=1.744; p=.191$</td>
<td>$F(1.74)=1.206; p=.276$</td>
</tr>
<tr>
<td>Order</td>
<td>$F(1.75)=.579; p=.449$</td>
<td>$F(1,74)=.000; p=.990$</td>
</tr>
<tr>
<td>Independence</td>
<td>$F(1.75)=.010; p=.922$</td>
<td>$F(1.74)=4.116; p=.046**$</td>
</tr>
<tr>
<td>Vengeance</td>
<td>$F(1,75)=.411; p=.523$</td>
<td>$F(1.73)=.355; p=.553$</td>
</tr>
<tr>
<td>Social Contact (Attention)</td>
<td>$F(1.75)=7.39; p=.008**$</td>
<td>$F(1.74)=.10; p=.753$</td>
</tr>
<tr>
<td>Citizenship (Helps Others)</td>
<td>$F(1,75)=.671; p=.415$</td>
<td>$F(1.74)=.206; p=.652$</td>
</tr>
</tbody>
</table>

**= statistically significant model with negative beta coefficients.
Chapter 4: Discussion

The relationship between adults with developmental disabilities and their caregiver is important and unique one. For this study, caregiver and adult with DD reports were collected measuring the adult-caregiver relationship conflict, mental health symptoms, and stress. One major finding in this study was the importance of having a harmonious relationship between the adult with DD and their caregiver. The conflict that can arise in this relationship has impacts on mental health symptoms, both reported and observed. There was not a significant correlation between how long a caregiver was in a working relationship with the adult with DD and their conflict score. However, it would be interesting to continue to look at this relationship and a possible explanation for relationship to exist is that they have figured out how to work with one another. Another possible explanation is that they have gotten along, for the most part, since day one. There can be high staff turnover rates in the paid caregiver field, so it’s important to determine how to best make the conflict in the relationship as minimal as possible so that they caregiver and adult can work long term. If the adult with DD and caregiver were in conflict the majority of time, this would not entice the caregiver to stay any longer. Whether that comes from finding a good pair at the very beginning, trying to ensure that the turnover rate for caregivers is minimal, or finding appropriate staff support throughout the course of the relationship in order to minimize conflict throughout.

In moderation analyses, conflict significantly varied the impact of stress on mental health symptoms indicating that the more conflict and stress in a relationship, the
more mental health symptoms reported. Harmonious caregiver relationships minimized the impact of stress on mental health for adults with DD. This finding held true when self-report or caregiver report was considered. It will be important for future research to explore the variables that contribute to or mitigate conflict in the caregiving relationship.

Examining the impact of social support on this complex dynamic suggested that the amount of social support in the adult with DD’s life had a significant impact on mental health, in addition to stress and conflict. According to the adult with DD’s report in the moderated moderation, among adults with high social support and low caregiver conflict, social support fostered resilience and mitigated the impact of stress on mental health symptoms. So overall the adults with low conflict, low stress, and high social support reported the least amount of mental health symptoms overall. However, the pattern reversed when caregiver conflict was high. Mental health symptoms were highest when conflict, stress, and social support were high. These findings may suggest the impact of social support is partially determined by the caregiver relationship, and we cannot assume that high social support by itself is enough to foster resilience and mitigate the impact of stress on mental health.

In an attempt to understand the findings in the high social support group, a possible explanation could relate to the social support measure used. The Social Support Self Report (SSSR) scale used items ask how much the person has contact with their friends and family, including how often the person talked to their family, if they talked to their family about their problems. The amount of contact may not reflect actual support in all cases. For example, a very intrusive and controlling family member may be perceived
as a source of stress or social strain instead of support. The SSSR does not distinguish support from strain. The same thoughts can be used on the staff report of social support as well. While measuring the amount of social support, it does not necessarily distinguish the social strain.

This study was unique in exploring the caregiving relationship as a function of mental health. The finding that relationship conflict was significantly associated with mental health and stress in adults with DD has important implications. More research is needed to inform adult-caregiver pairings, caregiver training to promote harmony in caregiving relationships, and to establish the appropriate amount of caregiver support.

One of the aims of this study was to examine the agreement between the adult with DD’s report was to their caregiver. This is important because most research in the field of DD has relied on informant report, even of subjective states such as stress, social support, and stress. It is important to compare self-report to informant report of the same construct to determine whether self-report findings can contribute to research. Overall, we found the measures were not highly correlated. This may be for different reasons, for example that the self-report may be invalid. However, different instruments were used which could have contributed to the lack of agreement.

Despite this lack of agreement however, the relationship between conflict, stress, and mental health held according to self and caregiver reports. Their input is important and should be valued because it is showing similar patterns to the informant report. The viewpoint may be different, internal versus external informant report, but when examined
side by side they are able to predict the same end result of importance, which is mental health symptoms, reported.

Self-reports of conflict, stress, social support, and mental health symptomatology is critical for sensitive and accurate mental health screening and care for everyone, adults with DD included. Research is needed to improve self-report measures and methods.

Limitations and Future Directions

We intended to gather diagnostic information about participants through their respective county boards of DD. With this information, we could assess the validity of the mental health scales completed by informant and self-report. Although we had consent from participants to gather these records, County Board policies changed during the course of data collection, which prevented us from accessing these records. Future research is needed to assess the validity of self-reported mental health symptoms.

This study was limited by the availability and evidence base of self-report measures for important psychosocial constructs. Specifically, the measures for social support were not able to distinguish social support from social strain. The self-report mental health measure was difficult for many participants to understand and the conflict scale was adapted for this study. Although motivation differences were hypothesized to predict conflict, a self-report version of motivation was not available. It may have been difficult for caregivers to provide ratings for themselves and for someone else without the two ratings being conflated. Research is needed to improve the quality of self-report measures for adults with DD.
The vast majority of caregivers in this study were paid. This is a limitation because, although we believe our findings have implications for paid as well as unpaid caregivers, we do not have the data to support this assumption. Future research is needed to explore conflict in family caregiving relationships.

It would be valuable for future research to explore the relationship between the amount and intensity of staff support and conflict and stress. Although paid staff are provided as a support to adults with DD. These supports may be perceived as intrusive and stressful. In situations where staff support is both needed and unwelcome, alternatives such as remote support may be pursued.

A limitation in the design of this study was that the adult with DD nominated the caregiver participant. The relationship with this caregiver, then, was the subject of the conflict rating. If the adult with DD chose their favorite caregiver to participate, their conflict scores could have been artificially low. However, even if conflict scores were artificially low, conflict still had implications for mental health symptoms.

Despite these limitations, this study contributes to the literature in important ways. We found that conflict with caregivers contributes to stress in the lives of adults with an developmental disability and negatively impacts mental health. It may be possible to reduce conflict in the relationship between paid caregivers and adult with DDs by attempting to match adults with DD to caregivers with similar motives, habits, and values. Increasing the harmony between paid caregivers and adults with DD may improve the health and well-being of both parties. Raising awareness of the adult’s
individual perspectives and values may lend itself to healthier caregiver-adult relationships and higher quality of life for adults with DD.
References


Appendix A: Demographic Forms

<table>
<thead>
<tr>
<th>Participant Demographic Information: Self-Report</th>
<th>Participant ID: ____________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
<td></td>
</tr>
</tbody>
</table>

**Directions:** Please provide the following information about yourself using the blank spaces provided or check the answer that best fits you.

1. Age (in years): ____________________

2. Gender:
   - Female (1)
   - Male (2)

3. Ethnicity (please check all that apply):
   - Prefer not to respond (0)
   - Asian/Pacific Islander (4)
   - Black or African American (1)
   - Native American (5)
   - Caucasian/White (2)
   - Bi-racial/Multi-racial (6)
   - Latino/Latina (3)
   - Other (please describe) (7) ____________________

4. Marital Status:
   - Single (1)
   - In a romantic relationship, but not married (2)
   - Married (3)
   - Divorced/Separated (4)
   - Other (please describe) (5) ____________________

5. Current Living Situation:
   - Independently - Alone (1)
   - Supportive Living (5)
   - Independently - Roommate(s) (2)
   - With romantic partner (6)
   - Less than 24 hrs support staff - Alone (3)
   - With family (7)
   - Less than 24 hrs support staff - Roommate(s) (4)
   - Other (please describe) (8): ____________________

6. Are you employed?
   - Yes - Full-time (40 or more hours/week) (1)
   - Yes - Part-time (less than 40 hours/week) (2)
   - No - Have had a job in the past (3)
   - No - Have never been employed (4)

7. If you are currently employed, what is your occupation/job? __________________________________________________________________________

8. If you are not currently employed but have been in the past, what is the job that you have held for the longest period of time?
   - Job: ____________________
   - How long? ____________________
Parent-Caregiver Demographic Questionnaire

Please provide the following information using the blank spaces provided or check the answer that best fits you.

1. Age (in years):

2. Gender:
   - Female (1)
   - Male (2)

3. Ethnicity (please check all that apply):
   - Prefer not to respond (0)
   - Asian/Pacific Islander (4)
   - Black or African American (1)
   - Native American (5)
   - Caucasian/White (2)
   - Bi-racial/Multi-racial (6)
   - Latino/Latina (3)
   - Other (please describe) (7)

4. Your relationship to participant (check all that apply):
   - Mother (1)
   - Father (2)
   - Grandmother (3)
   - Grandfather (4)
   - Legal Guardian (5)
   - Other family member (6)
   - Paid caregiver- residential (7)
   - Paid caregiver- day program (8)
   - Paid caregiver- other (9)
   - Other (please describe) (10)

5. If you are a legal guardian, adoptive parent, or other family member, how old was your son/daughter/family member when you began caring for him or her (in years)?

6. If you are a paid caregiver how long have you been working with him or her (in months or years)?

7. What is the highest degree you have earned:
   - High School Diploma (1)
   - Associate’s Degree (2)
   - Bachelor’s Degree (3)
   - Master’s Degree (4)
   - Doctoral Degree (5)
   - Professional Degree (6)
   - Other (please describe): (7)

8. Are you employed?
   - Yes - Full-time (40 hours/week) (1)
   - Yes - Part-time (less than 40 hours/week) (2)
   - No (3)

9. If you are currently employed, what is your occupation/job?
Appendix B: Stress Measures

The Lifestress Inventory

Parent ID
Date

I would like you to answer these questions about different stressful things in your life. I will read you a list of things to you. You can answer “yes” or “no”.

Scoring:  Yes = 1
No = 0

1. Do you get to choose things that are important to you?
2. Do you get enough privacy and time to yourself?
3. Have you heard people you know arguing?
4. Do people treat you as though you are different?
5. Do people respect your rights?
6. Has someone you know been seriously ill or died
7. Have you been getting along with your partner/boyfriend/girlfriend?
8. Do you get along well with your family?
9. Do people listen to you when you have something to say?
10. Do you feel you can’t do things properly or quick enough?
11. Can you understand other people’s instructions or directions?
12. Can people understand you?
13. Does anybody bully or hurt you?
14. Do people interrupt you when you are busy?
15. Do people tease you or call you names?
16. Do you get on well with your supervisor or teacher?
17. Do people make you do things you don’t really want to do?
18. Have you had any arguments or fights with anyone?
19. Can you do the things people want you to do?
20. Can you get enough help when you want it or need it?
21. Have you recently been in any really crowded places?
22. Have you ever been in a difficult situation where you didn’t know what to do?
23. Do people around you let you know what’s going on?
24. Will you always be able to have or find a job?
25. Do you feel confident handling money and counting change?
26. Do you like living where you live at the moment?
27. Have you been in trouble lately?
28. Do you have enough friends?
29. Do people think you can’t do things when you think you can?
30. Do people like talking to you?

I would like you to answer these questions about different stressful things in the life of ______. You can answer yes, sometimes, or no beside each item or use the numbers 2, 1, and 0 as coded below.

The Lifestress Inventory (Informant Version)

Scoring:  
Yes, most definitely = 2  
Sometimes or somewhat = 1  
No, Not at all = 0

SCORE

1. Does s/he get to choose things that are important to him/her?
2. Does s/he get enough privacy and time to him or herself?
3. Has s/he heard people s/he knows arguing?
4. Do people treat him/her as though s/he is different?
5. Do people respect his/her rights?
6. Has someone s/he knows been seriously ill or died?
7. Has s/he been getting along with his/her partner/boyfriend/girlfriend?
8. Does s/he get along well with his/her family?
9. Do people listen to him/her when s/he has something to say?
10. Does s/he feel s/he can’t do things properly or quick enough?
11. Can s/he understand other people’s instructions or directions?
12. Can people understand him/her?
13. Does anybody bully or hurt him/her?
14. Do people interrupt him/her when s/he is busy?
15. Do people tease him/her or call him/her names?
16. Does s/he get on well with his/her supervisor or teacher?
17. Do people make him/her do things s/he doesn’t really want to do?
18. Have s/he had any arguments or fights with anyone?
19. Can s/he do the things people want him/her to do?
20. Can s/he get enough help when s/he wants it or needs it?
21. Has s/he recently been in any really crowded places?
22. Has s/he ever been in a difficult situation where s/he didn’t know what to do?
23. Do people around him/her let him/her know what’s going on?
24. Will s/he always be able to have or find a job?
25. Does s/he feel confident handling money and counting change?
26. Does s/he like living where s/he lives at the moment?
27. Has s/he been in trouble lately?
28. Does s/he have enough friends?
29. Do people think s/he can’t do things when s/he thinks s/he can?
30. Do people like talking to him/her?

Appendix C: Social Support Measures

Participant ID____
Date____

Social Support Self Report (SSSR)

("**IF they give a non-personal name, ask: Who do you mean?"")

1. Who lives at this address with you? ______________________________
2. Are you married? _____ [If yes] Spouse’s name ______ [If unmarried] Do you have a boyfriend or girlfriend? ___ What is his or her name? ______ Where does s/he live? ______
3. Is your mother alive? _____ Where does she live? ______________________________
4. Is your father alive? _____ Where does he live? ______________________________
6. Who do you get along with best? ______________________________
7. Do you have any friends? _____ Who are they? ______________________________
8. Who is your best friend? ______ Your second best friend? _______________________
9. Where do they live? ______________________________
10. Do you have roommates? _____ Who are they? ______________________________
11. Do you have friends at work? _____ Who are they? ______________________________
12. Do you have any staff? _____ Who are they? ______________________________
13. Is there any body else important to you? ______________________________

For each important person identified... (a lot, sometimes, not at all)

A. How often do you see or talk to ____________ on the phone?
B. How often do you talk to ____________ about your feelings?
C. How much do you like ____________?
D. How much does ____________ help you with your problems?
E. How much do you help ____________ with his/her problems?

<table>
<thead>
<tr>
<th></th>
<th>Family</th>
<th>staff</th>
<th>friends</th>
<th>partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>A talk</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B feelings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C like</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D problem</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E recip</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reiss and Benson (1985). Psychosocial correlates of depression in mentally retarded adults I: Minimal support and stigmatization. American Journal on Mental Retardation, 89, 331-337
Social Circle Questionnaire (SCQ)

Please answer all of the following questions about the person’s family, workers, friends and boy/girlfriends.

1. Family (all family including aunts, uncles, cousins and grandparents if they are important)
   (a) number of family members involved with person
   (b) number of family members who phone at least once per month
   (c) number of family members who visit/go out at least once per month
   (d) number of visits/outings per month
   (e) number of phone calls per month
   * If answered 0 to all skip to workers section
   (f) number of visits/outings per month
   (g) number of phone calls per month
   For (f) to (p) 0= never 1= once in a while 2= sometimes
   3= often 4= very often DK= don’t know
   (f) family listens to person’s problems
   (g) family helps with practical issues
   (h) family plans special activities/outings
   (i) family shows day to day concern
   (j) family provides warmth/comfort
   (k) person gets nervous before family visits
   (l) person is upset/frustrated after visit
   (m) person phones family
   (n) person listens to family members’ problems
   (o) person makes plans to see family
   (p) person provides everyday supports

2. Workers (all staff, residential, day program, case managers and part time)
   (a) number of workers involved with person
   (b) number of workers who phone at least once per month
   (c) number of workers who visit/go out at least once per month
   * If answered 0 to all skip to friends section
   (d) number of visits/outings per month
   (e) number of phone calls per month
   For (f) to (p) 0= never 1= once in a while 2= sometimes
   3= often 4= very often DK= don’t know
   (f) worker(s) listens to person’s problems
   (g) worker(s) helps with practical issues
   (h) worker(s) plans special activities/outings
   (i) worker(s) shows day to day concern
   (j) worker(s) provides warmth/comfort
   (k) person gets nervous before worker(s) visits
   (l) person is upset/frustrated after visit
   (m) person phones worker(s)
   (n) person listens to worker(s) problems
   (o) person makes plans to see worker(s)
   (p) person provides everyday supports
3. **Friends/Roommates** (this includes people with and without disabilities. It can include roommates or coworkers, so long as they are people who choose to spend free time together)

- (a) number of friends involved with person: 0 1 2 3 4 DK
- (b) number of friends who phone at least once per month: 0 1 2 3 4 DK
- (c) number of friends who visit/go out at least once per month: 0 1 2 3 4 DK

* If answered 0 to all skip to boy/girlfriend section

- (d) number of visits/outings per month: 0 1 2 3 4 DK
- (e) number of phone calls per month: 0 1 2 3 4 DK

For (f) to (p) 0= never 1= once in a while 2= sometimes 3= often 4= very often DK= don’t know

- (f) friend(s) listens to person’s problems: 0 1 2 3 4 DK
- (g) friend(s) helps with practical issues: 0 1 2 3 4 DK
- (h) friend(s) plans special activities/outings: 0 1 2 3 4 DK
- (i) friend(s) shows day to day concern: 0 1 2 3 4 DK
- (j) friend(s) provides warmth/comfort: 0 1 2 3 4 DK
- (k) person gets nervous before friends(s): 0 1 2 3 4 DK
- (l) person is upset/frustrated after visit: 0 1 2 3 4 DK
- (m) person phones friend(s): 0 1 2 3 4 DK
- (n) person listens to friend(s) problems: 0 1 2 3 4 DK
- (o) person makes plans to see friend(s): 0 1 2 3 4 DK
- (p) person provides everyday supports: 0 1 2 3 4 DK

4. **Boy/Girlfriends** (this includes anyone who has a romantic relationship with the person)

- (a) number of b/gfriend(s) involved with person: 0 1 2 3 4 DK
- (b) number of b/gfriend(s) who phone at least once per month: 0 1 2 3 4 DK
- (c) number of b/gfriend(s) who visit/go out at least once per month: 0 1 2 3 4 DK

* If answered 0 go to comment section

- (d) number of visits/outings per month: 0 1 2 3 4 DK
- (e) number of phone calls per month: 0 1 2 3 4 DK

For (f) to (p) 0= never 1= once in a while 2= sometimes 3= often 4= very often DK= don’t know

- (f) b/gfriend(s) listens to person’s problems: 0 1 2 3 4 DK
- (g) b/gfriend(s) helps with practical issues: 0 1 2 3 4 DK
- (h) b/gfriend(s) plans special activities/outings: 0 1 2 3 4 DK
- (i) b/gfriend(s) shows day to day concern: 0 1 2 3 4 DK
- (j) b/gfriend(s) family provides warmth/comfort: 0 1 2 3 4 DK
- (k) person gets nervous before b/gfriend(s) visits: 0 1 2 3 4 DK
- (l) person is upset/frustrated after visit: 0 1 2 3 4 DK
- (m) person phones b/gfriend(s): 0 1 2 3 4 DK
- (n) person listens to b/gfriend(s) problems: 0 1 2 3 4 DK
- (o) person makes plans to see b/gfriend(s): 0 1 2 3 4 DK
- (p) person provides everyday supports: 0 1 2 3 4 DK
Comments (please make any comments that you feel are necessary to clarify your answers):
Appendix D: Conflict Measure

Participant ID ___________
Date_______________

Please reflect on the degree to which each of the following statements currently applies to your relationship with this adult with ID. Circle the appropriate number for each item.

<table>
<thead>
<tr>
<th></th>
<th>Definitely does not apply</th>
<th>Does not apply</th>
<th>Not sure</th>
<th>Applies Sometimes</th>
<th>Definitely applies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Please reflect on the degree to which each of the following statements currently applies to your relationship with this adult with ID. Circle the appropriate number for each item.

<table>
<thead>
<tr>
<th></th>
<th>Definitely does not apply</th>
<th>Does not apply</th>
<th>Neutral, Not sure</th>
<th>Applies Somewhat</th>
<th>Definitely applies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I share an affectionate, warm relationship with this adult with ID</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>This adult with ID and I always seem to be struggling with each other.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>If upset, this adult with ID will seek comfort with me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>This adult with ID is uncomfortable with physical affection or touch from me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>This adult with ID values his/her relationship with me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>This adult with ID focuses his/her attention on me the whole daylong.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>When I praise this adult with ID, he/she beams with pride.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>This adult with ID reacts strongly to separation from me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>This adult with ID seems to feel secure with me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>This adult with ID is overly-dependent on me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>This adult with ID easily becomes angry with me easily.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>This adult with ID tries to please me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td>This adult with ID feels that I treat him/her unfairly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>This adult with ID asks for my help when he/she really does not need help.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15</td>
<td>It is easy to be in-tune with what this adult with ID is feeling.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16</td>
<td>This adult with ID sees me as a source of punishment and criticism.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17</td>
<td>This adult with ID expresses hurt or jealousy when I spend time with other adult with IDs.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18</td>
<td>This adult with ID remains angry or is resistant after being asked to do something.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19</td>
<td>This adult with ID needs to be continually reassured by me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20</td>
<td>Dealing with this adult with ID drains my energy.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21</td>
<td>This adult with ID allows himself/herself to be encouraged by me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22</td>
<td>When this adult with ID is in a bad mood, I know we’re in for a long and difficult day.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
23. This adult with ID’s feelings toward me can be unpredictable or can change suddenly.  

|   |   |   |   |   |   |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

24. Despite my best efforts, I am uncomfortable with how this adult with ID and I get along.  

|   |   |   |   |   |   |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

25. This adult with ID whines or cries when he/she wants something from me.  

|   |   |   |   |   |   |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

26. This adult with ID is sneaky or manipulative with me.  

|   |   |   |   |   |   |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

27. This adult with ID openly shares his/her feelings and experiences with me.  

|   |   |   |   |   |   |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

28. My interactions with this adult with ID make me feel effective and confident.  

|   |   |   |   |   |   |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |