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An Instrument to Investigate Expectations about and Experiences of the Parent-Child Relationship: The Parent-Child Relationship Schema Scale

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Abstract: This paper explains the reasons for and process of creating and testing for reliability and constructing the validity of the Parent-Child Relationship Schema Scale (PCRSS). The instrument is based on the Model of Relationships Survey (MRS). However, where the MRS is an open-ended survey which takes 20–30 minutes to complete and longer to analyze, the PCRSS is a Likert scale survey which can be completed in less than half the time and offers more sophisticated analysis possibilities as well as new research opportunities. The paper explains the three-stage process used to create the PCRSS and the five tests of reliability and concurrent validity that it “passed”. We also discuss the potential for new areas of research about the parent-child relationship with the PCRSS.

Keywords: parent-child relationship; relational schema; parent-child relationship schema scale

1. Introduction

Social scientists, children and parents have been trying to understand the parent-child relationship in all of its age related permutations for decades. While there is considerable research on many aspects of the parent-child relationship ranging from effects of and on the child’s development [1–6], interdependence and control [7,8], to specifics of how family communication affects the child [9–12],

there is little information about the perspective of the child on communication and the parent-child relationship [13–16]. Part of the reason for this is the difficulty of working with children and the extra difficulty of finding an adequate number of participants. Another contributing factor is the lack of a theoretical relational perspective with instruments designed to explore the parent-child relationship from the perspective of the “child”.

The perspective of the child, at any age, is important to consider in light of studies noting the differences in reports of children, mothers, fathers, and teachers about children’s behaviors [17,18]. Amato and Keith [18] in a meta-analysis of 92 studies of the effects of divorce on children found that the source of information about the child (*i.e.*, child, mother, father, sibling or teacher) was related to five of the seven outcomes they investigated (such as internalizing and externalizing behavior). A significant portion of this variability was explained by the parent-child relationship variables themselves. Perspectives on the parent-child relationship are also not necessarily aligned. In a study of attachment in middle childhood, Kerns *et al.* [19] found that children’s reports of security were not correlated with mother’s reports of willingness to serve as an attachment figure for third graders, but were for fifth and sixth graders. Likewise, Steinberg [20] talked about the needs to bring together the disparate perspectives of parents and adolescents. He found that arguments which parents reported as disturbing were not perceived as even important by adolescents because of very different interpretations and expectations. The parents expected a clean room as part of becoming a “good person” while the teens did not see how the state of their room affected their parents. Expectations from both sides were violated but they were different expectations to begin with. If this relatively benign situation could cause conflict, what deeper difficulties might be caused when teens and parents hold different expectations for behaviors, feelings, and rules within the parent-child relationship itself?

Several of these studies measure various aspects of the parent-child relationship from the perspective of the child. In most cases, this consisted of asking the child to assess the availability, affection, emotional support, rejection [18], security felt [19], connection and support for autonomy [1], or affective quality of parental behaviors [21]. However, much of the literature seems to be missing a couple of key areas: (1) what is the perspective of the child on his/her own behaviors/feelings or dyadic feelings, behaviors that occur within a relationship (so a parent loving a child is not the same as the parent and child loving each other) and (2) how do these behaviors, emotions, *etc.* fit with the expectations the child has of the relationship? Measuring aspects of the parent-child relationship is important but we should consider how those aspects “match” the child’s expectations for that relationship.

The present paper offers both a theory and an instrument to consider the child’s perspectives about the match between expectations about and experiences in the parent-child relationship in the form of an application of interdependence theory and a refinement of the existing Model of Relationships Survey. We first discuss relational schemata effects (are they worth studying in this context?), definition and composition (what are they?), and development and change (how do they work?). We then summarize the Model of Relationship Survey (MRS), its development, and findings. Finally, we offer the results of a study that refined the MRS into a more efficient instrument, the Parent-Child Relationship Schema Scale (PCRSS).

2. Relational Schemata

2.1. Effects: Are Relational Schemata Worth Studying in this Context?

Before describing relational schemata, we offer a few reasons they are worthy of consideration by parent-child relational researchers. Relational schemata affect, obviously, our relationships in terms of our beliefs, interactions, and behaviors [22–24] as well as whether we are likely to try to change, maintain, or end them [25]. Just as importantly, because they contain beliefs about our own behavior, schemata affect our sense of who we are [26–28] and our self-esteem [29]. Furthermore, because they contain beliefs about others' behaviors, they influence how we react to aggression [30] and others' behaviors and affective states [31]. In short, relational schemata, potentially, affect everything about relationships, from how we see ourselves and others to how we interpret and react in social situations. Such a perspective offers a powerful way of understanding how we interpret others and ourselves in relation to others. Thus, it offers a unique perspective on the parent-child relationship and is worthy of further exploration.

2.2. Definition and Composition: What are Relational Schemata?

Relational schemata are based on the idea that people have “maps” or blueprints for expectations and behaviors in relationships, including general relational maps and particular ones for specific types of relationships and, of course, for specific relationships [24,27,28,32,33]. Schemata are working models that guide our decisions about acceptable and unacceptable behaviors, feelings, and beliefs within the context of relationships [30].

Early notions of such working models came from the work of Bowlby and Ainsworth on attachment theory [34]. Attachment theory is primarily about the security (or lack thereof) children feel in their relationship with their primary attachment figure [19]. Feelings of security are based on the availability and responsiveness of the attachment figure to the child's needs [19]. This initial childhood attachment is considered resistant to change and evolves to include information and expectations about the primary attachment figure as well as about the self [32]. Attachment styles formed in childhood have been shown to influence later peer relationships [35] and even adult romantic relationships [36]. Thus, the importance and effects of such foundational relational working models are well established.

Baldwin [27,37] defined these working models or schemata as including beliefs about ourselves within the context of a specific or general relationship, the other in the relationship, and an interpersonal script about how interactions should progress. These beliefs and scripts help us to negotiate our everyday relational interactions [24,38]. They also allow us to evaluate our own and others' communication, behaviors, and feelings within the relational context.

2.3. Development and Change: How do Relational Schemata Work?

The development of relational schemata occurs primarily as a product of our own experiences and behaviors [22,23,26–28,33]. Anderson [39] suggests that at least six different influences exist on relational schemata and knowledge. The first influence is the norms of the culture. Our relational

schema are relatively stable because our general social relationship schemata (how we interact with teachers, acquaintances) as well as our schemata for various types of relationships (how romantic, parental relationships are supposed to work) are embedded in the culture [32], and culture changes slowly. Each culture defines family and kinship rules that govern the behavior of family members. The level of familiarity and history that parents and children share is unparalleled. This familiarity leads to deep understanding of each particular family's culture. The regulative and constitutive rules for each group are firmly established. These rules tell the child when, where, and how to talk to others [40]. For instance, in American culture there is an expectation that a question from an adult demands an immediate response from a child [41].

The second influence on relational schemata is the mass media, which provide relationships to emulate and model. Media offer both a model and a reflection of family relationships. In American culture, the television provides prototypic family, sex role and relationship information that children imitate and incorporate into their own behavior. Television is one of the most powerful cultural institutions. Just by its constant presence in the home, television has great symbolic power [25,42].

The third factor is that information from past encounters creates schemata for future encounters. Individuals generate their expectations of future encounters based upon the type of interactions they have had in the past [39]. For example, when a parent disciplines a child texting at the dinner table, that rule becomes an expectation for both the parent and the child and becomes part of their relational schema. These schemata, like attachment models, seem relatively stable because our interactions within long-term relationships are relatively stable [33]. The experience with others is particularly germane to families where the interaction between members is likely to be pervasive and long term. Koerner and Fitzpatrick [24] argue that a primary function of family interaction is to create the family relationship schemata. In the family, parents teach their children about relational behavior. In turn, children react to their parents' communication and behaviors, noting differences between what parents say and what they do, as well as differences between their parents and other parents (*i.e.*, friends' parents, media examples). In this way, parents and children explicitly discuss what the expectations, rules and norms within the parent-child relationship are.

Fourth, information from a third party provides information about how relationships are supposed to be formed. Thus, conversations with friends about their own relationships with their parents will influence how each individual views the parent-child dyad [28,39]. Fifth, by observing the behavior of friends, each individual forms prototypes of the expected behaviors [39]. Sixth, research indicates that relational knowledge is developed, analyzed, and changed at intervals between interactions. Unlike the automatic interactions that occur when two people speak to each other, relational knowledge changes over time. The parent and child's knowledge and reactions to the interaction between the dyad are formed as they reflect upon the interchange. It is not just the exchange itself but the processing of the implications of that interchange that form relational schemata [39].

Relational schemata that children form of the parent-child relationship are relatively stable, but they are not stagnant. They continually evolve due to new experiences [33,38] and processing of those interactions [39]. While there is little research on how such working models change [43], exposure to the six processes listed above—in particular, other parent-child relationships, friends' beliefs and experiences, and mass media [25]—likely play a role in the evolution of the child's schemata about the parent-child relationship. It is this further development that is of interest here. If a child's relational

schema of the parent-child relationship was affected only by the relationship itself, there would likely be no issues that the child was aware of—his/her expectations would be an exact match for the parent's reality of the relationship. However, due to outside influences, the child has an opportunity to discover other ways of “doing” the parent-child relationship. Over time, those expectations may become part of the working model of parent-child relationships from the child's perspective and, thus, create a gap between the schema for, and the experience of, this relationship. To use the language of interdependence theory, the child's Comparison Level may no longer match the relationship as experienced. Comparison level (CL) refers to a person's expectations about what should happen or what he/she deserves within a relationship. It is this CL that is used to evaluate whether a relationship is meeting the standards expected [44]. Fletcher, Simpson, Thomas and Giles [25] postulate that “comparisons between previous standards and perceptions of current relationships are likely to be made on content-rich dimensions involving specific ideal standards rather than on global dimensions reflecting general expectations of the reward available in relationships” ([25], p. 72). What they call relationship ideals serve to both evaluate (is this relationship what it should/could be?) and regulate (how can I change this relationship in the direction I think it should go)? They posit that the more consistent the relationship is with the ideals, the more positive the evaluations of that relationship. Furthermore, they argue (as do social exchange and interdependence theories) that people are intrinsically motivated to be able to view relationships as matching ideals [25]. These ideas were supported with their research with undergraduates and romantic relationships as well as the authors' previous research with elementary, high school and undergraduate students' relationships with their parents [13–16]. So, children learn new ways of relating which changes their CL schema or their ideal for the parent-child relationship. That, in turn, may trigger dissatisfaction (at least) if the parent-child relationship no longer “matches up”.

Given the importance of the parent-child relationship and the potential problems with children whose relational schema of that relationship does not match their experience, it is clear we need to be able to study both the content of such schemata and the match between children's expectations based on those schemata and their perceptions of the reality of their own parent-child relationship. Toward that goal, the Model of Relationships Survey was created.

3. Model of Relationships Survey

The Model of Relationships Survey (MRS) was modeled after LaGaipa's [45] friendship behavior scale which presented a behavior and asked participants to generate a probability of occurrence from 50–90 percent. LaGaipa had the luxury of giving participants the behaviors characteristic of friendship to judge. However, no literature was found which explicated the behaviors characteristic of parent-child relationships [13–16]. Therefore, the MRS asked participants to generate five things parents and children are supposed to do together; things parents are supposed to do for children; things that children are supposed to do for parents; feelings that parents and children are supposed to have for each other; and rules that parents and children should have about the way they act or behave with each other. The scales were designed to cover the behavioral, affective and cognitive components of a relationship. These questions also differentiate between parent as a general societal role and parent as a role in the specific parent-child relationship. Thus, these questions ask about the second level of

Koerner and Fitzpatrick's [24] hierarchy which posited, based on Fletcher's [46] model, a hierarchy of relevant relational schemata within the family with three levels of abstraction: (1) the highest level of abstraction is the general social schema (applies to all social relationships); (2) the second or middle level is relationship type schema (family vs. friend vs. professional, *etc.*); and (3) the lowest or least abstract is a specific relationship (parent-child). Thus, this first set of questions deals with the middle layer of abstraction which is also the ideal: what do children think the parent-child relationship *should* be?

All of the questions asked about behaviors, feelings or rules occurring between the parent and the child or on the part of one towards the other. So, the idea that a parent should be "nice" in general does not matter; it is how a parent should be towards a son/daughter that composes that particular relationship model as opposed to a more general role schema (even though the role cannot be completely separated from relationships). Then, each participant determined how often each activity (behavior, feeling, rule, *etc.*) should be enacted on a five-point Likert scale ranging from "never" to "always".

Since the MRS was designed not just to explore the behaviors, feelings, and rules which should occur in a parent-child relationship but also to see if the son/daughter feels these expectations are being met, a second part of the instrument was created to yield an "expectation-experience score" which would reflect how well the model or ideal schema of the parent-child relationship matched the reality. The Expectation-Experience difference score was obtained by asking the participants to report how often each behavior actually occurred in their own parent-child relationship. In this way, the difference between the child's expectations, beliefs *etc.* in the schema and how well those expectations, beliefs are met/enacted in their own parent-child relationship was quantified. This gets to the actual schema for their own parent-child relationship and offers a way to compare this relationship with the Comparison Level (CL) of what the relationship should be. The method of first asking for the ideal and then perception of the current partner mirrors the process used by Fletcher *et al.* [25] in exploring the relationship between the ideal, reality, and satisfaction in romantic relationships.

Results found with the MRS at three age groups (elementary, adolescent and college students) are described below as well as how these results were used to create a more efficient instrument. The MRS has two problems: (1) it takes quite a bit of time for participants to complete because they have to generate the behaviors in each of the five areas; and (2) data analysis is difficult since a variety of behaviors is generated and the number is not always the same (although the MRS calls for each participant to list 25 behaviors, many do not). Thus, coding schemes had to be developed if any comparative analysis was desired as well as ways to compare surveys with 20 behaviors to surveys with 25, *etc.* (See Appendix A for a full version of the MRS).

4. Methods for Creating the Parent-Child Relationship Schema Scale

The creation of this instrument has been a three stage process. First, we gathered data about children's expectations and experience of the parent-child relationship, using the free response Model of Relationships Survey (MRS) (as explained above). Thus, the potential content of any particular parent-child relationship was gained "inductively from consensus among a number of individuals' descriptions of interpersonal transactions" ([27], p. 471). Second, we determined, refined and piloted the items created from the free response data. Third, we tested the revised version of the Model of Relationships Survey (the Parent-Child Relationship Schema Scale (PCRSS)) on a sizable sample. The

name change indicated that while the MRS can easily be adapted to measure expectations and experiences with any relationship, the PCRSS was specifically created to determine the difference between expectations and experience within the parent-child relationship from the child's perspective. We will explore, in-depth, the three stages involved in refining this survey instrument.

4.1. Procedures

4.1.1. Stage One

The first stage was to gather data from sons/daughters about their expectations of the parent-child relationship. In this stage, the MRS was administered to three groups of participants. Group One consisted of 88 elementary children, including 47 boys and 41 girls ranging in age from 6–12 years (mean 8.81). Since this was the first group, we used a grounded approach in analyzing the data and creating coding categories. To do this, we reviewed a random 30 participants' responses and generated categories to code responses. Then, we coded the rest of the data. Frequency tables showed that 30%–50% of responses were falling into the "other" category. So, our third step was to go back over the responses in this category for half the participants, looking for missed categories. From this analysis, several more categories were created. A second generation of frequency tables led to the deletion of some categories.

Group Two consisted of 38 adolescents: 18 girls and 20 boys. Adolescents' ages ranged from 11–18 years with a mean of 14.18 years. Group Three was 62 college students: 24 male and 38 female undergraduate students aged 18–23 years (mean 21). For both the second and third groups, the categories were applied and refined. From this sample of 188 participants and almost 4400 responses, we identified 90 possible categories of expectations within the five areas of (1) what parents should do for children; (2) what children should do for parents; (3) what parents and children should do together; (4) what feelings children and parents should have for each other; (5) what rules children and parents should follow. (For a complete list of these categories with frequency data for each group, see Appendix B). With these to begin with, we moved to Stage Two.

4.1.2. Stage Two

Stage Two involved creating items and narrowing the pool. In this stage, we took all 90 potential categories, ranked them by frequency within each group and then deleted some that were not used or were subsumed by other categories across the five areas. After this, we created the first version of the PCRSS. We piloted this on six participants ranging in age from 6–15 years as well as with our own research team of six faculty and graduate students, ranging in age from 21–45 years. Each participant took the PCRSS and discussed any items they felt were confusing, redundant or simply unnecessary. These items were reworded and/or deleted to create the second version of the PCRSS—an 88-item inventory.

Thus, Part I of the PCRSS is 44 items that measure expectations of the parent-child relationship such as "Parents and sons/daughters should talk together" and "Sons/daughters and parents should trust each other". The expectations are measured as to how often they should occur using a 5-point Likert scale from "never to always".

In Part II, which measures actual experience with the parent-child relationship, the corresponding items become “My parent and I talk together” and “We trust each other” with the same Likert scale. For the entire PCRSS, see Appendix C.

Thus, Part II items (experiences) are subtracted from Part I items (expectations) to create an expectations-experience score and see if the parent-child relationship is living up to the expectations of the participant. In doing this, we use absolute values. As we know from Expectancy Violation Theory [47], even people we care about and like can violate our expectations by doing too much of something. For instance, if teens think “parents and children should go places together” *often* but what they experience is *always*, that is not a good thing to the teen. Thus, we do not assume that more than expected is necessarily better; we simply record the magnitude of the difference. With this, we moved to Stage Three.

4.1.3. Stage Three

Stage Three included testing the new PCRSS. For this stage we needed a large enough sample to run several kinds of reliability and validity tests. The tests we intended to run on the new PCRSS were (1) Cronbach alpha for reliability; (2) correlation of the five areas with each other as another measure of internal consistency; (3) correlation with the family life survey since it correlated significantly with the MRS for all three groups mentioned in Stage One [13–16]; (4) correlation of a sub sample with the old MRS since that is what we are trying to replace; and 5) a factor analysis of the items to see if they group into the five original categories created in the MRS.

4.2. Participants

Because we needed a large sample for this stage of the testing, communication graduate students recruited participants by staffing tables for two hours a day, five days a week, for two weeks at a Midwestern regional university. We varied the buildings where the tables were located as well as the times of day the surveys were recruited. Each pair of graduate students had three sets of surveys. If students, staff, or faculty completed the PCRSS and Family Life Survey (FLS) they received a free candy bar or can of pop. If they, subsequently, also completed the MRS, they received another free candy bar or can of pop. Although participants were primarily students, staff and faculty were welcome to participate as well (we did not measure “type” of participant). All surveys were completed at or near the staffed tables and were completely anonymous. The PCRSS and FLS took about 15 minutes to complete while the MRS surveys ranged due to the qualitative responses. While it would have been better to test this with a wider range of ages, this recruitment strategy allowed for the best opportunity to gain a larger sample. In this way, we recruited 210 participants; 109 females, 79 males and 22 not responding to the sex category question. The participants ranged in age from 18–61 years (M of 27.34). While we did not ask about whether parents were living, we did exclude any surveys with missing data or who had put “N/A” as to current experience with their parent.

4.3. Instruments

Besides the PCRSS and the MRS, which have already been explained in some depth, the other instrument was the Family Life Survey (FLS).

4.3.1. Family Life Survey

Family satisfaction was measured by using an adaptation of a Marital Opinion Questionnaire [48] called the Family Life Survey. This scale asked how participants felt their relationship with their families had been over the last two months. It used seven-point semantic differentials to measure eight specific items: miserable/enjoyable; hopeful/discouraging; empty/full; interesting/boring; rewarding/disappointing; doesn't give me much chance/brings out the best in me; lonely/friendly; worthwhile/useless. It also included one global satisfaction item of completely satisfied/completely dissatisfied. This scale has been used with marital couples and achieved alphas ranging from 0.88–0.94 with correlations between the individual item totals and the global rating from 0.63–0.80 [48]. In previous studies with elementary children, the eight items yielded an alpha of 0.80, [13] with adolescents a 0.80 [15,16] and with college students a 0.93 [14]. In this study, the FLS yielded an alpha of 0.92, the Pearson's correlation between the individual items and the global item was also significant ($r(207) = .75; p < 0.0001$). In all three previous groups, the FLS correlated significantly and negatively with the MRS. Thus, as the differences between expectations and experiences of the parent-child relationship increased, the participant's satisfaction with family life decreased. This finding was consistent across age groups. Therefore, if the PCRSS is a more efficient version of the MRS, we should find that the PCRSS correlates significantly and negatively with the FLS.

4.3.2. Model of Relationships Survey

This instrument has already been described elsewhere. There were 63 participants in the final testing of the instrument who completed both the PCRSS and the MRS. The Cronbach alpha for the MRS for this sample was 0.94.

5. Results of Validating the PCRSS

As stated earlier, we wanted to test the PCRSS in five ways: (1) Cronbach alpha for reliability; (2) correlation of the five areas with each other as another measure of internal consistency; (3) correlation with the family life survey since it correlated significantly with the MRS for all three groups mentioned in Stage One [13–16]; (4) correlation of a sub sample with the old MRS since that is what we are trying to replace; and, finally, (5) a look at the factor analysis of the scale.

5.1. Cronbach Alpha for Reliability

The first test of this new instrument was the Cronbach alpha. After four items (Numbers 17, 21, 32, and 39 for Part I and the matching items in Part II) were dropped because they contributed less than 0.05 variance, the alpha was run on the remaining 80 items and achieved a 0.90. So, the first test indicates a reliable instrument. Given this, these items were dropped for the remainder of the analyses.

5.2. Correlation of the Five Areas with Each Other

The second test was to take the items for each of the five areas and correlate them with each other. The 40 item PCRSS was composed of eight items within what parents should do for children; seven

items about what children should do for parents; eight items to measure what parents and children should do together; nine to explore what feelings children and parents should have for each other; and eight measuring rules children and parents should follow. We added the items within each area and correlated those scores using a Bonferroni probability to account for the number of correlations run. The results yielded a $p < 0.0001$. The matrix of pairwise correlations and probabilities can be found in Table 1.

Table 1. Correlations of five areas of PCRSS (Parent-Child Relationship Schema Scale) with each other (Overall probability with 10 df $p < 0.0001$).

	Parents do for children	Children do for parents	Do together	Rules
Children do for parents	.49**			
Do together	.67**	.48**		
Rules	.41**	.41**	.48**	
Feelings	.30**	.40**	.39**	.61**

Note: ** $p < 0.0001$.

5.3. Correlation with the Family Life Survey

The third test, to correlate the PCRSS results with the FLS, also supported the efficacy of the PCRSS. The Pearson's $r (180) = -0.34$, $p < 0.0001$. See Table 2 below for descriptive statistics of all three instruments.

Table 2. Correlations of PCRSS with FLS and MRS.

		FLS_Score	MRS_Score
PCRS_SCORE	Pearson r	-.34	.630
	$p < (2\text{-tailed})$	.0001	.0001
	N	182	63
$M = 30.08$; $SD = 14.99$		$M = 51.75$; $SD = 11.42$	$M = 18.91$; $SD = 13.49$

5.4. Correlation of a Subsample with the MRS

The fourth test, to correlate the PCRSS results with the MRS as a validity indicator, was also significant: $r (61) = 0.63$; $p < 0.0001$. Thus, the PCRSS, while taking much less time and offering more statistical possibilities, correlates with the older, open-ended measure of expectations *versus* experience of the parent-child relationship.

5.5. Factor Analysis

The final exploration of the validity of the PCRSS consists of taking a look at the factor analysis of the scale. Here, there were some surprises. The two measures which should be met before a factor analysis were met satisfactorily: Kaiser-Meyer-Olkin Measure of Sampling Adequacy was a respectable 0.82 while the Bartlett Test of Sphericity yielded a $X^2 (780) = 2745.64$; $p < 0.0001$. Only

loadings of 0.30 or above were considered for a factor; initial eigenvalues varied from 1.46–8.99. All but three items loaded onto one of the five factors. (See Appendix D for specific list of items loaded onto each factor as well as the rotated factor matrix and eigenvalues for each factor).

The principal axis factoring for five factors with varimax rotation yielded five factors that were slightly different than expected. While the expectation was for factors matching the five areas—parents do for children, children do for parents, do together, rules, and feelings—what actually emerged was five very different factors: things parents and children do together, communication/attention, helping/understanding behaviors and feelings, love/respect, and conflict. So, rather than grouping according to the original categories that were created by the MRS, the factors grouped according to behavioral/feeling categories. So, “things children do for parents” and “things parents do for children” went into helping/understanding behaviors and combined with feelings. However, conflict came out as its own factor as did communication/attention and love/respect.

While further confirmation is needed to see if these items might form useful subscales of the relational schemata that we hold about the parent-child relationship, some post-hoc tests indicate that this might be the case. Each of the subscales was significantly and negatively correlated with the FLS scores (see Table 3 for correlations and descriptive statistics for each potential subscale). Cronbach alphas ranged from 0.76–0.91.

Table 3. Subscale alphas and correlations with Family Life Survey (FLS).

		Do Together	Communication Attention	Help Understanding	Love Respect	Conflict
FLS_	Pearson <i>r</i>	−.278	−.360	−.216	−.368	−.145
	Sig. (2-tailed)	.0001	.0001	.003	.0001	.043
	N	189	190	191	193	196
<i>M</i> = 51.75 <i>SD</i> = 11.42		<i>M</i> = 8.4 <i>SD</i> = 4.64	<i>M</i> = 9.03 <i>SD</i> = 6.01	<i>M</i> = 5.28 <i>SD</i> = 2.96	<i>M</i> = 2.97 <i>SD</i> = 2.71	<i>M</i> = 2.38 <i>SD</i> = 1.77
Cronbach alpha for subscales		.86	.91	.85	.83	.76

Taken together, these five measures indicate a valid and reliable instrument that is both more efficient and more statistically useful than the MRS.

6. Discussion

The creation of the PCRSS appears to have been a successful endeavor, “passing” all four tests to measure reliability and concurrent validity. It obtained a respectable measure of reliability, significant internal correlations, a significant correlation with the family life survey and, perhaps most importantly, a significant correlation with the Model of Relationships Survey which it is designed to replace. The factor analysis indicates that the dimensions of the parent-child schema may be less usefully viewed in terms of behaviors, feelings, and rules and more in terms of interactions, communication, feelings (both helping/understanding and love/respect), and conflict. This finding, in and of itself, deserves more exploration as a way to envisage key components of the relational schemata for this important relationship.

The PCRSS offers two primary advantages over the old MRS: (1) it takes less than half the time to complete, which increases the likelihood of participants being willing to take the survey and of actually finishing it; and (2) since it uses Likert scales, more sophisticated data analysis is possible and easier to obtain.

However, the PCRSS also offers other possibilities besides simply replacing an older instrument. Because it lists the behaviors (while still giving the participants the opportunity to respond with “never” in terms of expected occurrence), a researcher can now compare responses between groups of participants on the same behaviors. This was not possible with the MRS since the same behaviors might not have been generated. Therefore, researchers could explore differences regarding the expectations and/or experiences of the parent-child relationship dependent on age, ethnic, socioeconomic background, education, and other family populations. While the PCRSS is designed to look at the expectations-experience match, a researcher could use Part One to explore differences in expectations and/or Part Two to explore differences in experiences of the parent-child relationship. The entire instrument would not necessarily need to be used since each part explores all 40 behaviors.

This also means that the PCRSS could be used to compare the expectations of the sons/daughters with their parents to see if a mismatch between the models that each person holds of the parent-child relationship might be related to things such as the type of family communication, *i.e.*, conversationally or conformity oriented [49], family life satisfaction, conflict, *etc.* We could begin to uncover the content of the Comparison Level ideals. Again, the same comparison could also be made of the experiences of the parent-child relationship.

Beyond using the entire instrument, more exploration should be done with the factors that were revealed within this instrument. For instance, which factors are more relevant to a child’s satisfaction (or frustration) with the parent-child relationship? The post-hoc tests showed that Communication/Attention was the most strongly correlated with family life satisfaction, meaning that the wider the discrepancy between expectations and experiences of communication and attention, the stronger the negative association with the family life score. Although, given the post hoc nature of the subscale results, care should be used in drawing conclusions. The results do indicate utility not just for the PCRSS but for the subscales in exploring the content of aspects of the child’s relational schemata.

Looking at how the difference scores within factors change within different age groups could shed considerable light on the mismatch between what children expect and what they experience. These mismatches are likely to be particularly important for adolescents whose expectations about the parent-child relationship may be changing faster than their parents’ expectations about the same relationship thus explaining the difference in interpretations that Steinberg [20] discussed. Do some factors change more than others?

We would also point out that, while the PCRSS, replaces the MRS in terms of the parent-child relationship, the MRS is still useful. The MRS was designed to discover and explore the expectations and experiences of a relationship for which the research had yet to generate a list of expected behaviors. A simple change to the directions for the Model of Relationships Survey can adapt it to any kind of relationship where investigators are interested in discovering the behaviors, feelings and rules that people expect within that type of relationship. Thus, the content of relational schemata can be explored. So, for the parent-child relationship it is probably more efficient and effective to use the PCRSS, while the MRS still has utility for research in other relationship types.

6.1. Limitations

The limitations of this study were typical of that of college campus research endeavors. The participants were limited to a medium sized Midwestern campus. Ethnic background was not measured because the campus population as a whole is not richly diverse; therefore it is unlikely that a significant portion of the participants were nonwhite.

Although there was a good cross-section of ages represented in our sample, there were, obviously, no children included in the final stage of testing. Since the categories were originally developed from the responses of children, we believe the PCRSS will translate easily to those age groups. Still, it would be beneficial to look at testing the instrument with a younger age group.

Likewise, further testing of the potential subscales is needed. The conflict subscale, in particular, tested as less reliable than the other subscales. That could be due to the greater age of this sample. Testing these items with a younger age group could yield important insights about expectations of conflict across age groups.

6.2. Implications

Of course, one implication for future research would be further validation of the PCRSS itself with a sample of children under the age of 18. Given the testing we have done here, a smaller sample of elementary, middle school, and adolescents could be used to validate the instrument with these age groups.

The other implications to future research, given the creation of the PCRSS, are very promising. In addition to being more statistically sound than the MRS as well as more efficient, the PCRSS allows for comparative research that was not possible with the MRS.

Because the PCRSS can be used to compare the experiences of two individuals within the same relationship, direct comparisons of the experiences of the parent(s) and the child(ren) could be viewed. With the MRS this could not have been done without extensive coding.

Similarly, the PCRSS could be used to examine trends in expectations among groups of children or parents. There may be patterns in the expectations of adolescents *versus* elementary aged groups of children that could be uncovered with the PCRSS.

Of course, as stated above, the factors themselves could yield more specific “ideal standards” as Fletcher *et al.* call for. We could begin to understand what the expectations are that children have of the parent-child relationship and how those expectations evolve over the lifespan [26].

The limit to PCRSS is that it is indeed parent-child specific. Because the behaviors addressed are not transferable necessarily to friendships or romantic relationships, the PCRSS is suited only for parent-child research. However, having an instrument designed to uniquely measure the expectations and experiences within the parent-child relationship is a necessary step in extending our understanding of this key relationship.

7. Conclusions

In conclusion, the Parent-Child Relationship Schema Scale not only presents an efficient way of looking at expectations and experiences of the parent-child relationship, it also opens new opportunities

for research in this area. The PCRSS offers researchers a powerful tool to use in their exploration of this key and long-lasting relationship.

Author Contributions

All three authors worked on creating the instrument, gathering data, and writing the first drafts of the paper. Analysis of the data and subsequent revisions of the manuscript were completed by Dr. Marcia Dixon.

Conflicts of Interest

The authors declare no conflict of interest.

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Appendices

Appendix A

Model of Relationships Survey

Participants: Please do this survey, Model of Relationships, first! Be sure to answer all questions on the front and back of each page (And have patience, the first part of this one takes a while but it gets easier)

For the first two sets of questions, please imagine a parent and a teen acting the way you think parents and teens should act (not necessarily the way they actually do act). For this survey answer all of the questions in Column 1 first, then Column 2, and finally Column 3. For questions in Column 3 please choose one of your parents/guardians to respond about. Thank you

I have chosen my (circle one): mother father stepmother stepfather other _____

Column One	Column Two					Column Three				
1.Name five things that parents and teens are supposed to do together.	1.5 Now, indicate how often should do these things by circling the number.					1.7 How often do you and your parent actually do these things?				
	Never	Seldom	Sometimes	Often	Always	Never	Seldom	Sometimes	Often	Always
a. _____	1	2	3	4	5	1	2	3	4	5
b. _____	1	2	3	4	5	1	2	3	4	5
c. _____	1	2	3	4	5	1	2	3	4	5
d. _____	1	2	3	4	5	1	2	3	4	5
e. _____	1	2	3	4	5	1	2	3	4	5

2. Name **five** things that parents are supposed to do for teens.

2.5 Now, indicate how often should do these things by circling the number.

2.7 How often do you and your parent actually do these things?

	Never	Seldom	Sometimes	Often	Always	Never	Seldom	Sometimes	Often	Always
a. _____	1	2	3	4	5	1	2	3	4	5
b. _____	1	2	3	4	5	1	2	3	4	5
c. _____	1	2	3	4	5	1	2	3	4	5
d. _____	1	2	3	4	5	1	2	3	4	5
e. _____	1	2	3	4	5	1	2	3	4	5

3. Name **five** things that teens are supposed to do for parents.

3.5 Now, indicate how often should do these things by circling the number.

3.7 How often do you and your parent actually do these things?

	Never	Seldom	Sometimes	Often	Always	Never	Seldom	Sometimes	Often	Always
a. _____	1	2	3	4	5	1	2	3	4	5
b. _____	1	2	3	4	5	1	2	3	4	5
c. _____	1	2	3	4	5	1	2	3	4	5
d. _____	1	2	3	4	5	1	2	3	4	5
e. _____	1	2	3	4	5	1	2	3	4	5

4. Name **five** feelings that parents and teens are supposed to have for each other.

4.5 Now, indicate how often should do these things by circling the number.

4.7 How often do you and your parent actually do these things?

	Never	Seldom	Sometimes	Often	Always	Never	Seldom	Sometimes	Often	Always
a. _____	1	2	3	4	5	1	2	3	4	5
b. _____	1	2	3	4	5	1	2	3	4	5

c. _____	1	2	3	4	5	1	2	3	4	5
d. _____	1	2	3	4	5	1	2	3	4	5
e. _____	1	2	3	4	5	1	2	3	4	5

5. Name **five** rules that parents and teens should have about the way they act or behave with each other.

5.5 Now, indicate how often should do these things by circling the number.

5.7 How often do you and your parent actually do these things?

	Never	Seldom	Sometimes	Often	Always	Never	Seldom	Sometimes	Often	Always
a. _____	1	2	3	4	5	1	2	3	4	5
b. _____	1	2	3	4	5	1	2	3	4	5
c. _____	1	2	3	4	5	1	2	3	4	5
d. _____	1	2	3	4	5	1	2	3	4	5
e. _____	1	2	3	4	5	1	2	3	4	5

6. Complete the sentence: A parent is someone who . . .

7. Complete the sentence: A son/daughter is someone who . . .

Appendix B

Name five things parents are supposed to do for children				
Category	Elementary	Adolescent	College	Total
Feed them	54	13	23	90
Teach them	20	13	28	61
Help them dress etc.	36	7	10	53
Help them do other things	0	0	0	0
Be nice	14	1	2	17
Love them	23	6	22	51
Discipline them	0	0	1	1
Protect them	0	0	0	0
Guide them	11	19	84	114
Take them places	33	14	1	48
Buy them things	56	24	24	104
Give them attention	16	21	27	64
Take care of them	51	13	25	89
Clean for them	13	4	4	21
Celebrate birthdays/holidays	0	0	0	0
Other	28	25	56	109
Spend time with them	29	2	5	36
Like/respect	14	28	17	59
Grand Total			917	

Name five things children are supposed to do for parents

Category	Elementary	Adolescent	College	Total
Be nice	21	7	2	30
Give them love	21	6	33	60
Housework	36	24	19	79
Clean up after yourself	41	7	1	49
Pet care	0	0	0	0
Make/buy presents	25	1	1	27
Take messages	0	0	0	0
Thank them	0	0	1	1
Pray for them	0	0	0	0
Help them	68	20	49	137
Listen to them	16	10	13	39
Do as they say	42	15	27	84
Eat your meals	0	0	0	0
Cook for them	16	5	1	22
Other	59	29	58	146
Yard work	9	2	2	13
Give parents a break	15	2	2	19
Family care	8	1	11	20
Work hard	11	8	0	19
Respect	0	19	58	77
Talk to them	0	12	33	45
Grand Total				867

Name five things parents and children are supposed to do together

Category	Elementary	Adolescent	College	Total
Play/color	54	7	6	67
Read	19	0	2	21
Watch TV	19	9	14	42
Talk/meetings	17	29	57	103
Eat	42	28	43	113
Prepare food	0	0	0	0
Help each other	18	7	13	38
Go places	72	30	24	126
Vacation	25	9	29	63
Social occasions	18	16	27	61
Pray	0	0	0	0
Lay out clothes	0	0	0	0
Other	30	10	31	71
Recreational	23	12	13	48
Spend time	24	11	35	70
Do other things	21	7	10	38
Respect each other	16	12	23	51
Grand Total				912

Name five rules that parents and children should have about the way they act/behave with each other

Category	Elementary	Adolescent	College	Total
No swearing	15	4	9	28
No hitting	24	11	13	48
No fighting	47	22	23	92
No teasing	0	0	0	0
Eat at table	0	0	0	0
Be nice	67	22	28	117
Talk to each other	24	9	18	51
Listen	22	6	25	53
Be honest	12	9	22	43
Forgive	0	0	1	1
Share	0	0	0	0
Do as told	17	6	7	30
Curfew	13	5	3	21
Be good	18	1	2	21
Do what each other asks	8	0	3	11
Treat each other with respect	0	0	0	0
Other	55	41	93	189
House rules	40	9	3	52
Be respectful	17	23	58	98
Do chores	9	2	1	12
Grand Total				867

Name five feelings parents and children are supposed to have for each other

Category	Elementary	Adolescent	College	Total
Love	69	15	64	148
Truthfulness	10	4	9	23
Sharing	16	4	2	22
Caring	39	16	14	69
Friendship	13	9	16	38
Trust	18	9	23	50
Respect	19	19	50	88
Happiness	60	12	15	87
Gratitude	0	2	1	3
Other	50	36	68	154
Understanding	19	15	33	67
Sorry/sympathy	28	5	7	40
Anger	21	5	4	30
Negative	7	6	4	17
Grand total				836

Appendix C

Parent-Child Relationship Schema Scale

Part I

Below is a list of behaviors that could occur in a parent-child relationship. Indicate how often, if ever, you feel these behaviors should occur (in a parent-child relationship with a child your age) by circling the appropriate number

Uses the scale: 1 2 3 4 5
 Never Not very often Sometimes Often Always

1. Parents and sons/daughters should play together.
2. Parents and sons/daughters should read together (read to each other or read separately in the same room)
3. Parents and sons/daughters should watch TV together (watch the same shows in the same room).
4. Parents and sons/daughters should talk together.
5. Parents and sons/daughters should eat together.
6. Parents and sons/daughters should help each other.
7. Parents and sons/daughters should go places together.
8. When parents and sons/daughters go on vacation they should go together.
9. Parents should be sure sons/daughters have food to eat.
10. Parents should teach sons/daughters.
11. Parents should help sons/daughters get dressed.
12. Parents should discipline sons/daughters for unacceptable behavior.
13. Parents should take sons/daughters places.
14. Parents should buy sons/daughters things.
15. Parents should pay attention to sons/daughters.
16. Parents should take care of sons/daughters.
17. Sons/daughters should be nice to parents.
18. Sons/daughters should do housework (cleaning, cooking, yardwork) for parents.
19. Sons/daughters should pick up after themselves for their parents.
20. Sons/daughters should buy presents for their parents on birthdays and/or holidays.

21. Sons/daughters should help parents.
22. Sons/daughters should listen to parents and do as they say.
23. Sons/daughters should give parents a break.
24. Sons/daughters should work hard for parents.
25. Sons/daughters should talk to parents.
26. Sons/daughters and parents should love each other.
27. Sons/daughters and parents should be truthful with each other.
28. Sons/daughters and parents should be friends with each other.
29. Sons/daughters and parents should trust each other.
30. Sons/daughters and parents should respect each other.
31. Sons/daughters and parents should be happy with each other.
32. Sons/daughters and parents should be grateful to each other.
33. Sons/daughters and parents should understand each other.
34. Sons/daughters and parents should feel sorry (compassion) for each other.
35. Sons/daughters and parents should feel angry with each other.
36. Sons/daughters and parents should swear at each other.
37. Sons/daughters and parents should hit each other.
38. Sons/daughters and parents should argue with each other.
39. Sons/daughters and parents should be nice to each other.
40. Sons/daughters and parents should talk to each other
41. Sons/daughters and parents should listen to each other.
42. Sons/daughters and parents should be honest with each other.
43. Sons/daughters and parents should be good to each other.
44. Sons/daughters and parents should follow rules (curfew etc.).

Part 2

Below is a list of behaviors that could occur in a parent-child relationship. Indicate how often you feel these behaviors actually occur in your relationship with your parent (choose one parent/guardian) by circling the appropriate number [Same items as above]

Appendix D

Parent-child Relationship Schema Scale – Factor Analysis

Factor 1 – Do together

1. Parents and sons/daughters should play together.
2. Parents and sons/daughters should read together (read to each other or read separately in the same room).
5. Parents and sons/daughters should eat together.
7. Parents and sons/daughters should go places together.
8. When parents and sons/daughters go on vacation they should go together.
11. Parents should help sons/daughters get dressed.
13. Parents should take sons/daughters places.
14. Parents should buy sons/daughters things.

Factor 2 - Communication/attention

4. Parents and sons/daughters should talk together.
6. Parents and sons/daughters should help each other.
10. Parents should teach sons/daughters.
15. Parents should pay attention to sons/daughters.
16. Parents should take care of sons/daughters.
19. Sons/daughters should pick up after themselves for their parents.
22. Sons/daughters should listen to parents and do as they say.
25. Sons/daughters should talk to parents.
40. Sons/daughters and parents should talk to each other.
41. Sons/daughters and parents should listen to each other.
42. Sons/daughters and parents should be honest with each other.
43. Sons/daughters and parents should be good to each other.

Factor 3 – Helping/Understanding behaviors and feelings

- 18. Sons/daughters should do housework (cleaning, cooking, yard-work) for parents.
- 20. Sons/daughters should buy presents for their parents on birthdays and/or holidays.
- 23. Sons/daughters should give parents a break.
- 24. Sons/daughters should work hard for parents.
- 28. Sons/daughters and parents should be friends with each other.
- 31. Sons/daughters and parents should be happy with each other.
- 33. Sons/daughters and parents should understand each other.
- 34. Sons/daughters and parents should feel sorry (compassion) for each other.

Factor 4 – Love/Respect

- 26. Sons/daughters and parents should love each other.
- 27. Sons/daughters and parents should be truthful with each other.
- 29. Sons/daughters and parents should trust each other.
- 30. Sons/daughters and parents should respect each other.
- 44. Sons/daughters and parents should follow rules (curfew etc.).

Factor 5 – Conflict

- 35. Sons/daughters and parents should feel angry with each other.
- 36. Sons/daughters and parents should swear at each other.
- 37. Sons/daughters and parents should hit each other.
- 38. Sons/daughters and parents should argue with each other.

Didn't load on any factor

- 3. Parents and sons/daughters should watch TV together (watch the same shows in the same room).
- 9. Parents should be sure sons/daughters have food to eat.
- 12. Parents should discipline sons/daughters for unacceptable behavior.

Cut earlier in the process due to small variance Is the following highlighted deleted? If so, please remove it.

~~17. Sons/daughters should be nice to parents.~~_____

~~21. Sons/daughters should help parents.~~_____

~~32. Sons/daughters and parents should be grateful to each other.~~_____

~~39. Sons/daughters and parents should be nice to each other.~~_____

Table A1. Rotated Factor Matrix with eigenvalues.

	Factor w/eigenvalues				
	1: 8.99	2: 2.56	3: 2.40	4: 1.88	5: 1.46
mrs1	.573				
mrs2	.665				
mrs3					
mrs4	.439	.459			
mrs5	.531				
mrs6		.375			
mrs7	.582				
mrs8	.473				
mrs9					
mrs10		.469			
mrs11	.506				
mrs12					
mrs13	.486				
mrs14	.304				
mrs15		.640			
mrs16		.571			
mrs18			.428		
mrs19		.397	.330		
mrs20			.439		
mrs22		.333		.311	

Table A1. *Cont.*

	Factor w/eigenvalues				
	1: 8.99	2: 2.56	3: 2.40	4: 1.88	5: 1.46
mrs23			.581		
mrs24			.585		
mrs25	.433	.448			
mrs26				.587	
mrs27		.315		.460	
mrs28			.538		
mrs29				.699	
mrs30				.607	
mrs31			.487		
mrs33			.458		
mrs34	.321		.367		
mrs35					.488
mrs36				-.328	.512
mrs37					.564
mrs38					.383
mrs40	.324	.581			
mrs41	.309	.598			
mrs42		.367		.360	
mrs43		.411			
mrs44				.307	

Notes: Extraction Method: Principal Axis Factoring; Rotation Method: Varimax with Kaiser Normalization; Rotation converged in 6 iterations.