

**SPIRITUALITY, RELIGIOSITY, AND THRIVING AMONG ADOLESCENTS:  
IDENTIFICATION AND CONFIRMATION OF FACTOR STRUCTURES<sup>1</sup>**

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**Running Head:** Adolescent spirituality and thriving

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**Abstract**

Using a data set from Search Institute's research archive, *Young Adolescents and Their Parents* (YAP), the present study ascertained whether religiosity, spirituality, and thriving could be identified and confirmed as separate latent constructs among a randomly selected subsample of 1,000 youth drawn from the larger YAP sample. Factor analytic and structural equation modeling (SEM) findings provided evidence of the separate, multidimensional presence of the latent constructs (second order factors) and confirmed the presence of four religiosity first order factors (e.g., role of a faith institution in one's life), three spirituality first order factors (e.g., orientation to help people other than the self), and nine thriving first order factors (e.g., future orientation/path to a hopeful future). Limitations of the present analyses and directions for future research with this, and related data sets, are discussed.

In these early years of the twenty-first century a new vocabulary for discussing America's young people has emerged. Propelled by the increasingly more collaborative contributions of scholars (e.g., Lerner, Brentano, Dowling, & Anderson, 2002; Lerner, Dowling, & Anderson, in press; Roth, Brooks-Gunn, Murray, & Foster, 1998), practitioners (e.g., Wheeler, 2000), and policy makers (e.g., Gore & Gore, 2002; Gore, 2003), youth are viewed as resources to be developed. Based on a developmental systems theoretical perspective (Lerner, 2002) that focuses on the potential for healthy development that arises because of the relative malleability (“plasticity”) of the relations between people and their families and communities, the new vocabulary emphasizes the strengths present within all young people and involves concepts such as developmental assets (Benson, 2003), positive youth development (e.g., Little, 1993), moral development (Damon, 1990), civic engagement (e.g., Flanagan & Sherrod, 1998; Sherrod, Flanagan, & Youniss, 2002; Youniss, McClellan, & Yates, 1999), well-being (Bornstein, et al., 2003), and thriving (Scales, Benson, Leffert, & Blyth, 2000).

Because of the openness of the developmental system to change concepts associated with the new vocabulary about youth reflect the ideas that every young person has the potential for successful, healthy development, that all youth possess the capacity for positive development, and that such flourishing of youth development will occur when the adolescent is engaged with his or her proximal community context (e.g., his or her neighborhood) in mutually beneficial manners. A young person may be said to be thriving, then, if he or she is involved across time in healthy, positive relations with his or her community, and on the path to what Csikszentmihalyi and Rathunde (1998) describe as “idealized personhood” (an adult status marked by making culturally valued contributions to self, others, and institutions).

Thus, a young person's emerging sense of self--his or her identity development—should, in ideal circumstances, involve a commitment to use his or her strengths to find a way to “do right by” (to be civically engaged in positive ways with) the community (and thereby support the context that is supporting him or her). In essence, then, contemporary developmental theory leads to the idea that healthy adolescent development involves a merger of moral and civic identity and results in engagement by the adolescent with the institutions of civil society (Lerner, et al., 2002; in press). According to Scales, et al. (2000), thriving youth exhibit not only the absence of negative behaviors but also indicators of positive development. Specifically, Scales, et al. (2000) operationalize thriving as involving seven attributes, i.e., school success, leadership, helping others, maintenance of physical health, delay of gratification, valuing diversity, and, overcoming adversity. Adolescents thrive when their moral and civic identities involve them in valuing and taking actions that contribute to a world beyond themselves in place and time. Such a commitment reflects a young person's sense of transcendence of self or, in other words, his or her sense of spirituality (Lerner, et al., 2002, in press).

Accordingly, if fueled by a sense of spirituality as it relates to a commitment to contribute civically and thereby transcend self, it is believed that young people will manifest integrated moral and civic identities and the characteristics indicative of positive youth development, that is, the “Five Cs” of positive youth development: Competence, confidence, character, social connection, and caring or compassion (Eccles & Gootman, 2002; Lerner, Fisher, & Weinberg, 2000; Roth, et al., 1998). The development of such functionally valued behaviors in young people, as well as the development of an understanding of, and a commitment to, entities that transcend self and self-interest are believed to result in the emergence in youth of an orientation to contribute to their

community (which is a “sixth C” of positive youth development; Little, 1993; Youniss, et al., 1999).

Consistent with Youniss, et al. (1999), we believe that the sense of transcendence of self and a rejection of zero-sum-game self-interest, that accrues as integrated moral and civic self-definitions (identities) develop, may be interpreted as a growing spiritual sense (Benson, 2003). As explained in Lerner, et al. (2002), akin to fidelity in Erikson’s (1968) conception of identity development, spirituality is a transcendent virtue that accompanies the behaviors (roles) associated with a self-definition that regards contributions to society as both morally required and civically necessary. Reich (1999), for instance, operationalizes spirituality in a manner consistent with this view; he specifies that spirituality is viewing life in new and better ways, adopting some conception as transcendent or of great value, and defining one’s self and one’s relation to others in a manner that goes beyond provincialism or materialism to express authentic concerns about others. In turn, Reich (1999) contrasts this conception of spirituality with his operationalization of religiosity, which to him involves a relationship with a particular institutionalized doctrine about a supernatural power, a relationship that occurs through affiliation with an organized faith and participation in its prescribed rituals.

That is, to Reich (1999) and others (e.g., Youniss, et al., 1999), a young person’s sense of religiosity may be an important source of positive development; however, religiosity may or may not be dependent on a young person experiencing a sense of transcendence or spirituality when involved in the formal rites and institutions of an established faith tradition. In fact, according to Benson (1997), religion and spirituality may be regarded as potentially orthogonal and important sources of thriving among youth.

Thus, Reich's (1999) operational distinction between these two potential non-isomorphic covariates of positive youth development is potentially empirically important.

In short, then, contemporary scholars of adolescent development are pointing to the implications of religiosity, spirituality, and thriving on positive youth development (see, for example, Lerner, et al. in press; Youniss, et al., 1999), and are conceptually differentiating the role of these constructs in such development. However, there have been no attempts to date to operationalize and obtain psychometric support for these constructs within one data set pertinent to adolescence. Thus, despite the presence of influential operationalizations of religiosity (Reich, 1999), spirituality (Reich, 1999), and thriving (Scales, et al., 2000) within the current adolescent literature, and the theoretical burden placed on these constructs as distinct variables in the development of youth (e.g., Youniss, et al., 1999), and before any hypotheses can be addressed about the links among religiosity, spirituality, and thriving within adolescence (e.g., as in Lerner, et al., in press), there must be psychometric evidence that operationalizations of these three constructs converge with adolescent data to support the view that the constructs are empirically distinct. For instance, the availability of psychometrically sound measures can test whether there is evidence that the operationalizations of religiosity (Reich, 1999), spirituality (Reich, 1999), and thriving (Scales, et al., 2000) noted above correspond to three distinct sets of measurable patterns of covariation.

The purpose of the present study was to address this question by exploiting one of the few data sets with an item pool potentially appropriate for such psychometric analyses. Search Institute has several large data sets in its research archives that contain information pertinent to the constructs of religiosity, spirituality, and thriving during the adolescent period. We report initial analyses of the *Young Adolescents and Their Parents* (YAP) data

set (Search Institute, 1984). The YAP involves the responses of a cross-sectional sample that includes 8,165 youth, ranging in grade from fifth through ninth grades, and 10,467 parents.

The present study focuses only on the youth data. Of the 319 items in the youth survey, the participants responded to 91 questionnaire items that pertained to religiosity, spirituality, and positive youth development or thriving (e.g., social competence, self-esteem and respect for diversity). Through use of the data analytic strategies described below, we present heretofore uncharted data that allow a determination to be made about whether evidence exists for the presence of separate factors for religiosity, spirituality, and thriving among the adolescents in the YAP sample and, if so, to describe the structure of each of these factors within the data set.

## **Method**

### **Participants**

The sample in the *Young Adolescents and Their Parents* (YAP) survey involves 8,165 youth representing all 50 of the United States. The sample, which was gathered in 1982 and 1983, was drawn randomly from 13 national youth-serving organizations and religious organizations. The survey was administered in group settings in 953 locations. Youth ranged in grade from fifth through ninth and in age from nine to 15 years. Forty-seven percent (47%) are males and 53% females. Eighty-two percent (82%) of the youth are European American, 6.9% African American, 6.5% Hispanic, 1.8% Asian American, and 1.4% American Indian. The sample is most highly represented by Baptists (21.4%), Lutherans (18.7%), Roman Catholics (15.1%), and Methodists (14.1%). Jews represent .1% of the sample which is otherwise all Christian. In regard to SES, the majority of youth's parents (31.9% of mothers and 27% of fathers) graduated from high school, and

22.9% of mothers and 23.9% of fathers completed college. A random sample of 1,000 youth was drawn from the overall sample. This smaller sample was composed of 472 boys (mean age = 12.2 years, SD = 1.5) and 528 girls (mean age = 12.1 years, SD = 1.4) and was representative of the demographic characteristics present in the larger YAP sample.

### **Measure and Coding**

The *Young Adolescents and Their Parents* (YAP) youth survey has a total of 319 items. Two independent raters (E. M. D. and P. M. A.) extracted from the 319 YAP items 91 items associated with religiosity, spirituality, or thriving. As we discussed above, and based on their precedence in the literature, the following definitions of each of these constructs were used: Following Reich's (1999), religiosity was defined as the relationship with, through institutional affiliation and participation in prescribed practices, a particular doctrine about a supernatural power. Reich's (1999) operationalization of spirituality also was used; that is, spirituality was defined as seeing life and living in new and better ways, taking something to be transcendent or of great value, and defining self and relation to others in ways that move beyond petty or material concerns to genuine concern for others. Finally, following Scales, et al. (2000), thriving was defined as involving the presence of school success, leadership, helping others, maintenance of physical health, delay of gratification, valuing diversity, and, overcoming adversity.

The computation of Cohen's kappa revealed an interrater reliability of .87 in regard to the items to-be-derived from the YAP survey, and, in turn, there was .77, 1.0, and .96 agreement for placement of items into the spirituality ( $n = 13$ ); religiosity ( $n = 26$ ); and thriving ( $n = 52$ ) categories. The overall kappa for this tripartite placement was .97. Item categorization that was not agreed upon by the two raters was decided by a third

independent rater. Four of the 13 religiosity items that were identified dealt with specific religious traditions (e.g., Item 290, “How important is it to you to figure out what it means to be Jewish?”). Since our goal was to generate constructs that apply to all religious affiliations, the four items that related to a specific religious affiliation were removed, leaving a total of 22 religiosity items and, overall, 87 items in the pool. The response format for all items used a Likert-type scale that provided response alternatives that ranged from one to five for a majority of the items (89 %), one to three for 9 % of the items, and one to six for the remaining 2 % of the items.<sup>2</sup>

### **Data analysis procedures**

Using the random sample of 1,000 youth drawn from the overall sample of 8,165 youth, orthogonal factor analyses were conducted for each of the three latent constructs of interest, i.e., religiosity, spirituality, and thriving. Varimax rotational procedures were used. A root 1 criterion was followed for the extraction of factors. The resulting factor solution was confirmed through the use of structural equation modeling (SEM), using the LISREL 8.53 program (Jöreskog & Sörbom, 2002).

## **RESULTS**

Preliminary analyses involved the computation of exploratory factor analyses of the respective sets of religiosity, spirituality, and thriving items for the above-noted random sample of 1,000 youth drawn from the overall YAP sample. In order to attempt to confirm the factor structure identified through the initial factor analytic procedures, subsequent analyses involved the use of the LISREL 8.53 procedures noted above.

### **Factor analysis**

For each construct (religiosity, spirituality, and thriving), the respective set of items associated with it was subjected to an orthogonal (principal axes) factor analysis which, as noted, employed Varimax rotation and a root 1 criterion for factor extraction. There were two purposes of this procedure. First, we sought to identify first order factors potentially associated with each of the three latent constructs; these first order factors constituted, in effect, hypotheses about the structure of each of the latent constructs. Second, these first order factors served as components in the structural equation model used to test (or, in order words, used in an attempt to confirm) the presence of the latent constructs (which thus take the status of second order factors) hypothesized to mark religiosity, spirituality, or thriving, respectively.

In the factor extraction process, a maximum of 25 iterations was performed. To be conservative in identifying the items related to the three constructs of interest, and given the power of the data set, we set a minimum Eigenvalue of 1.5 for factor retention (as compared to factor extraction). As well, a criterion was specified that there be at least three items loading at .3 or above<sup>3</sup>. This procedure resulted in retaining only those items that loaded .46 or more on their respective factors. Accordingly, from the original pool of 87 items, 47 items were retained: Religiosity, 11 items; Spirituality, nine items; and Thriving, 27 items.

Four (4) first order factors potentially associated with the construct of religiosity emerged: Impact of religious beliefs on the self (Eigenvalue = 7.6); religious views (Eigenvalue = 2.2); religious restrictions of God on people (Eigenvalue = 1.6); and role of a faith institution in one's life (Eigenvalue = 1.5). In turn, three (3) first order factors potentially associated with the construct of spirituality emerged: Orientation to do good

work (Eigenvalue = 2.7); participation in activities of self-interest (Eigenvalue = 2.1); and orientation to help people other than the self (Eigenvalue = 1.6). Finally, nine (9) first order factors potentially associated with the construct of thriving emerged: Rules for youth presented by mother (Eigenvalue = 10.4); rules for youth presented by father (Eigenvalue = 4.5); presence of a moral compass (Eigenvalue = 2.6); future orientation/path to a hopeful future (Eigenvalue = 2.2); search for a positive identity (Eigenvalue = 2.0); personal values (Eigenvalue = 1.9); engagement with school (Eigenvalue = 1.7); view of gender equity (Eigenvalue = 1.5); and view of diversity (Eigenvalue = 1.5). Table 1 presents a list of these factors and an example of a high loading item.

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### **Confirmation of factor structure**

Using LISREL 8.53 an attempt was made to confirm a model of the latent constructs (or second order factors) of religiosity, spirituality, and thriving, and, in turn, the factors and items associated with these constructs. That is, as shown in Figure 1, the hypothesized model involves three levels, i.e., (1) the three second order factors of religiosity, spirituality, and thriving; (2) the four first order factors associated with religiosity, the three first order factors associated with spirituality, and the nine first order factors associated with thriving; and (3) the manifest variables – the items – associated with each of the latent variables defined in “2” above.

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The results of the LISREL analysis, which employed maximum likelihood methods for estimation, indicated that the model presented in Figure 1 fits that data well, i.e.,  $\chi^2 = 2383.6$ ;  $df = 1015$ ; RMSEA = 0.048; comparative fit index (CFI) = 0.91. Accordingly, the findings of this test of the overall model confirm the presence of three relatively independent constructs (religiosity, spirituality, and thriving). However, the dashed arrows from these constructs to the factors that were evaluated as defining them indicate that for each construct, one path was fixed, for purposes of estimation. In other words, the best estimate of the model, shown in Figure 1, involved three non-fixed religiosity first order factors (i.e., paths in the model), two non-fixed spirituality first order factors, and eight non-fixed thriving first order factors. Table 2 also shows the measured variables that were fixed and those whose paths we estimated (as illustrated in Figure 1) to define the first order factors associated with the second order factors of religiosity, spirituality, and thriving, respectively.

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Insert Table 2 about here

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In sum, the results of both the factor analysis and the SEM procedures reported above converge in indicating that, within the YAP data set, the latent constructs (second order factors) of religiosity, spirituality, and thriving can be independently identified and confirmed. Each second order factor is multivariate in its latent structure. The confirmation of the independent presence of these three latent constructs affords a

necessary condition to begin to explore theoretical ideas about the role of spirituality in exemplary positive youth behavior and development.

### **Discussion**

Drawn from contemporary developmental systems theories (Lerner, 2002), the study of positive youth development rests on the idea that all young people have a potential for healthy and successful development. Such potential derives from the plasticity of the developmental system and, hence, from the capacity of the individual to engage his or her world – to establish a fit with his or her context – that will be mutually beneficial to self and society (Lerner, et al., 2002; in press). Recent theoretical discussions of this link between individuals and context have stressed the role of youth spirituality as a moderator of the person’s striving to build such mutually beneficial relations (Lerner, et al., in press; Youniss, et al., 1999). These discussions have postulated that adolescent spirituality, which has been regarded as not isomorphic with feelings of religiosity among youth (Lerner, et al., in press; Youniss, et al., 1999), impels young people to maximize their opportunities to contribute to their social world and, when this occurs, youth will manifest exemplary positive development, i.e., they will thrive (Lerner, et al., 2002).

These ideas led to the present study. Using the rich and substantively powerful Search Institute (1984) data set, *Young Adolescents and Their Parents* (YAP), we sought to ascertain whether religiosity, spirituality, and thriving could be identified and confirmed as separate latent constructs. The factor analytic and SEM findings provide empirical evidence of the separate, multidimensional presence of these three latent constructs within a randomly selected subsample of 1,000 youth from the larger (8,165) YAP sample.

The religiosity latent construct identified in the present analyses was confirmed to have four first order factors significantly associated with it: impact of religious belief,

religious views, religious restrictions of God on people, and role of a faith institution in one's life. In turn, the spirituality latent construct was confirmed to have three first order factors significantly associated with it: orientation to do good work, participation in activities of self-interest, and orientation to help people other than the self. Finally, thriving was confirmed to be composed of nine first order factors: Rules on youth presented by mother, rules for youth presented by father, presence of a moral compass, future orientation/path to a hopeful future, search for a positive identity, personal values, engagement with school, view of gender equity, and view of diversity.

These thriving first order factors correspond in several ways to the items used to define thriving in the independent, Search Institute data set used by Scales, et al. (2000). That is, Scales, et al. defined thriving as composed of school success, leadership, helping others, maintenance of physical health, delay of gratification, valuing diversity, and overcoming adversity; several of these concepts appear consistent with the first order factors identified in the YAP sample. For example, the first order factors of "Engagement with school" and "Future orientation/path to a hopeful future" appear similar to the item of "School success" used by Scales, et al. (2000). In turn, the first order factor "Presence of a moral compass" resembles the item "Helping others" used by Scales, et al., and the first order factor "Search for a positive identity" resemble the Scales, et al. items "Overcoming adversity" and "Delay of gratification." Finally, the first order factors of "View of diversity" and "View of gender equity" resemble the item "Valuing diversity" used by Scales, et al.

The consistency between the items used to represent thriving in the Scales, et al. (2000) data set, which involved analyses of approximately 100,000 youth across the United States, sampled in the mid to late-1990s, and the first order factors associated with

thriving in the YAP data set, also involving youth sampled from across the United States, but in the early to mid 1980s, suggests that there may be cross-cohort and cross-time-of-testing (i.e., time lag) generalizability for concepts related to thriving. However, additional cross-validation, in new data sets, ones specifically aimed at appraising in a direct and a priori way the terms used to represent thriving by diverse youth, is warranted.

Such research would overcome a common limitation of using any data archive to explore new research questions. That is, an archival data set being exploited for some current question was (almost by definition) typically gathered for purposes different than the ones framing this current use in secondary analysis (e.g., see Elder, 1974, and Lerner, Hertzog, Hooker, Hassibi, & Thomas, 1988). Accordingly, the YAP items used to index the second order factors of religiosity, spirituality, and thriving were not designed to measure these latent constructs. While there is factorial validity for the association of items with the latent factors, the items present in the YAP data set may not be regarded as ideal (in respect to their substance or behavior) to index thriving (or religiosity and spirituality). Thus, data from new research, informed by current conceptions of positive youth development (e.g., Benson, 2003; Eccles & Gootman, 2002), and using items developed explicitly to index these ideas, would be useful to employ in work that attempted to provide conceptual triangulation with the current YAP analysis.

Such cross-validation can be enhanced by further, more nuanced analysis of the present YAP data set. To pursue this end, we may draw a few additional, non-overlapping random samples and, with them, attempt cross-validation. In this way, confirmation of the present findings may be extended to all youth in the sample. Similar procedures can be followed to analyze data from the adolescents' mothers and fathers as well. In addition, variation or consistency in factor structure should be ascertained across age, sex, race,

religion, and area of residence among the youth. Such differentiation will afford more nuanced comparison with the Scales, et al. (2000) data set and, as well, with other, larger, and more recent data sets collected by Search Institute and other investigators interested in positive youth development and thriving (e.g., see Eccles & Gootman, 2002; Lerner, et al., 2003).

These comparisons with other data sets are especially important given that the YAP sample is not representative of the racial/ethnic or religious distributions of youth in the contemporary United States (Fisher, et al., 2002; Fisher, Jackson, & Villarruel, 1997; McLoyd, & Steinberg, 1998). However, comparable findings emerging across such comparisons would lend themselves to interpretations of robustness of the present findings.

Moreover, in that some of these other data sets are longitudinal in design (e.g., Lerner, et al., 2003), such cross-study triangulation can provide information about whether the theoretical ideas about religiosity, spirituality, and thriving can be demonstrated across time, as well as in the cross-sectional YAP data set. Nevertheless, pending such cross-study comparisons, the value of the present research is that it allows testing, with independent religiosity, spirituality, and thriving second order factors, of whether there is at least unitemporal structural covariation among these latent constructs. As such, one key next step for the analysis of the YAP data set will be to ascertain whether, independent of religiosity, variation in spirituality moderates thriving among adolescents.

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### Footnotes

<sup>2</sup>Copies of all items in the item pool, and a list of items associated with each of the confirmed religiosity, spirituality, and thriving factors (see Figure 1), may be obtained from the authors upon request.

<sup>3</sup>Nevertheless, for one of the religiosity first order factors (religious views), only two indicators were retained because, as noted, we excluded items (e.g., Importance of finding out what it means to be Jewish) that pertained to specific religious traditions, e.g., Judaism.

**Table 1. Hypothesized Religiosity, Spirituality, and Thriving Factors and a Representative Item for Each Factor.**

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<u>Religiosity Factors</u>	<u>Representative Item</u>
1. Impact Religious Beliefs on Self	Does your religious make you feel better when things don't go well?
2. Religious Views	What is your view of God?
3. Religious Restrictions of God on People their life.	God has a lot of rules about how people should live
4. Role of a Faith Institution in One's Life	How many years have you attended classes which teach about God and other religious things?
<u>Spirituality Factors</u>	
1. Orientation to Do Good Work	Imagine you saw a little kid fall and get hurt on the playground. Would you run over and try to help?
2. Participation in Self-Interest Activities	In the past 12 months, how many times have been out on a date?
3. Orientation to Help Others	How many hours did you give help to people outside your family that have special needs during the last month without pay?

**Table 1 (continued)**

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Thriving Factors

1. Rules for youth presented by Mother	Mom tries to help me see why rules are necessary and important.
2. Rules for youth presented by Father	When I do something wrong, my father takes the time to help me see why it was wrong.
3. Presence of a Moral Compass	How wrong is it to lie to your parents?
4. Future Orientation/Path to a Hopeful Future	What do you want most in life (e.g., to have world without war)?
5. Search for Positive Identity	How much interest do you have in finding out what is special about you?
6. Personal Values	What do you most want in life? To do whatever I want to do when I want to do it.
7. Engagement with school	How do you feel about going to school?
8. View of Gender Equity	I think women should have the same rights as men.
9. View of Diversity	How right or wrong is racial discrimination?

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**Table 2. Summary of results of LISREL 8.53 test of the model linking the latent constructs of religiosity, spirituality, and thriving to latent factors and observed variables.**

<u>Second Order Factor</u>	<u>First Order Factor</u>	<u>Number of Items Defining Factor</u>
Religiosity	Impact of religious belief on self	3
	Religious views	2
	Religious restrictions of God on people	3
	Role of a faith institution in one's life	3
Spirituality	Orientation to do good work	3
	Participation in activities of self-interest	3
	Orientation to help people other than self	3
Thriving	Rules on youth presented by mother	3
	Rules on youth presented by father	3

**Table 2 (continued)**

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Presence of a moral compass	3
Future orientation/path to hopeful future	3
Search for a positive identity	3
Personal Values	3
Engagement with school	3
View of gender equity	3
View of diversity	3

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### Figure Legend

Figure 1. LISREL 8.53 path diagram for the test of the model linking the latent constructs of religiosity, spirituality, and thriving to the latent factors and observed variables. (Note.— Labels for the first order factors are: R1 = Impact of religious beliefs on the self; R2 = Religious views; R3 = Religious restrictions of God on people; R4 = Role of a faith institution in one's life; S1 = Orientation to do good work; S2 = Participation in activities of self-interest; S3 = Orientation to help people other than the self; T1 = Rules for youth presented by mother; T2 = Rules for youth presented by father; T3 = Presence of a moral compass; T4 = Future orientation/Path to a hopeful future; T5 = Search for a positive identity; T6 = Personal values; T7 = Engagement with school; T8 = View of gender equity; and, T9 = View of diversity. Item numbers in the observed variable column refer to items in the overall 319 item YAP survey).

