

**STRUCTURAL RELATIONS AMONG SPIRITUALITY, RELIGIOSITY, AND
THRIVING IN ADOLESCENCE¹**

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Running Head: Structural Relations

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Abstract

Using the randomly selected subsample of 1,000 youth (472 males, mean age = 12.2 years, SD 1.5; 528 females, mean age = 12.1 years, SD = 1.4), drawn by Dowling, et al. (in press) from a Search Institute archival data set, *Young Adolescents and Their Parents* (YAP), this research employed structural equation modeling procedures to appraise the structural relations among second-order factors of religiosity, spirituality, and thriving. Three hierarchically-related models were tested: the first model was a complete mediation model that involved a direct effect of spirituality on thriving and an indirect effect of spirituality on thriving, mediated by religiosity; the second model only consisted of the mediated effect; and the third model only consisted of the direct effects of spirituality on thriving and religiosity on thriving. Consistent with expectations, the complete mediation model provided reasonably good fit to the data and was significantly better than either of the alternative models. The importance of the present findings for the future study of youth thriving using either the YAP data set or new, longitudinal studies is discussed.

Contemporary developmental systems theories of positive youth development (PYD) rest on the idea that all young people have a potential for healthy and successful development (Lerner, Brentano, Dowling, & Anderson, 2002; Lerner, Dowling, & Anderson, in press). The potential for PYD 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). Recent theoretical discussions of this link between positively developing, or of thriving, youth and their context have stressed the role of youth spirituality as a mediator of the person’s striving to build such mutually beneficial relations (Dowling, Gestsdottir, Anderson, von Eye, & Lerner, in press; Lerner et al., 2002; Lerner et al., in press; Youniss et al., 1999).

These discussions have been predicated on a definition of adolescent spirituality 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 the petty or material concerns to genuine concern for others (Reich, Oser, & Scarlett, 1999). This conception of spirituality distinguishes between this dimension of the “inner life” of youth and religiosity which, in turn, has been defined as the relationship with a particular doctrine about a supernatural power through institutional affiliation and participation in prescribed practices (Reich et al, 1999). Following this distinction, several models of adolescent development have proposed that being spiritual means that one contributes to his or her social world (Lerner et al., in press; Youniss, et al., 1999), and that this propensity to contribute to the world is related to exemplary positive development, i.e., to thriving (Lerner et al., 2002).

Using a data set from Search Institute's data archive, *Young Adolescents and Their Parents* (YAP), Dowling, et al. (in press) sought to ascertain whether religiosity, spirituality, and thriving could be identified and confirmed as separate second-order factors within the statistically powerful (the sample of youth exceeds 8,000) and substantively rich (youth respond to more than 300 items) YAP (1984) data set. The results of both exploratory factor analysis and confirmatory factor analysis (LISREL 8.53; Jöreskog & Sörbom, 2002) provided empirical support for the presence of these three constructs as second-order factors within a randomly selected subsample of 1,000 youth from the larger YAP sample.

As illustrated in Figure 1, Dowling et al. (in press) found that the religiosity construct was confirmed to have four first-order factors: Impact of religious beliefs on self, religious views, religious restrictions of God on people, and role of a faith institution in one's life. In turn, the spirituality construct was confirmed to have three first-order factors: 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 for 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.

Insert Figure 1 about here

Each of these sets of first-order factors appeared consistent with operationalizations in the literature of the respective latent constructs (second-order factors) they purport to index (Dowling et al., in press; Reich et al., 1999). For instance, the findings appeared consistent with the definitions for religiosity and spirituality forwarded by Reich et al. (1999). For example, the first-order factors for religiosity--Impact of religious beliefs on self; Religious views; Religious restrictions of God on people; and, Role of a faith institution in one's life--conform to the Reich et al. operationalization of religiosity, which defines the construct as involving participation in the practices of a faith-based institution related to a supernatural power. The first-order factors for spirituality identified in the present paper—Orientation to do good work; Participation in activities of self-interest; and, Orientation to help people other than the self--conform to the Reich et al. operationalization of spirituality, which defines the construct as involving a transcendence of self-interest and a concern for others.

In addition, the nine first-order factors that were indicators of thriving correspond in several ways to the items used to define it in the independent, Search Institute data set used by Scales et al. (2000). Scales et al. indexed thriving through seven items that, respectively, related to school success, leadership, helping others, maintenance of physical health, delay of gratification, valuing diversity, and overcoming adversity. Several of these concepts are consistent with the factors identified in the YAP sample. For example, the factors of “Engagement with school” and “Future orientation/path to a hopeful future” appear similar to their item of “School success” used by Scales et al. (2000). In turn, the factor “Presence of a moral compass” resembles the item “Helping others” used by Scales et al. and the factor “Search for a positive identity” resemble the Scales et al. items

“Overcoming adversity” and “Delay of gratification.” Finally, the factors “View of diversity” and “View of gender equity” resemble the item “Valuing diversity” used by Scales et al.

The consistency between the results of Dowling et al. (in press) and other research seeking to identify the second-order factors of religiosity, spirituality, and thriving suggests that the YAP data set, albeit cross-sectional and thus appropriate only for assessing unitemporal patterns of covariation, is useful nevertheless in providing at least initial appraisal of the purported structural relations between youth spirituality and thriving. Here, we pose the following question: Does religiosity mediate the influence of spirituality on thriving? In other words, is the only pathway of spirituality to thriving through religiosity? While the literature would not support the complete absence of combined influences of spirituality and religiosity on thriving (e.g., Benson, 1997), we expected that there would nevertheless be some influence of the former construct on thriving that existed over and above any combined or mediated influence involving the latter construct. The present article reports the results of SEM analyses testing these expected links among religiosity, spirituality, and thriving among adolescents.

Method

Participants

As described in Dowling et al. (in press), the sample in the *Young Adolescents and Their Parents* (YAP) survey involves 8,165 youth, sampled in 1982 and 1983 from all 50 of the United States, and ranging in grade from fifth through ninth and in age from 9 to 15 years (47% males; 82% European American, 6.9% African American, 6.5% Hispanic, 1.8% Asian American, and 1.4% American Indian; over 99% from Christian

denominations). The majority of 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. As described in Dowling, et al. (in press) a random sample of 1,000 youth was drawn from the overall sample. This smaller sample was composed of 472 males (mean age = 12.2 years, SD = 1.5) and 528 females (mean age = 12.1 years, SD = 1.4), which is consistent with the demographic characteristics of the larger YAP sample.

Measure, Coding, and Factor Identification

As described by Dowling et al. (in press), from the total of 319 items in The *Young Adolescents and Their Parents* (YAP) youth survey, 115 items were associated with either “spirituality” (defined as seeing life and living in new and better ways; taking something to be transcendent or of great value; redefining self and relation to others such that move beyond petty or material concerns to genuine concern for others; Reich et al., 1999); “religiosity” (defined as the relationship, through institutional affiliation and participation in prescribed practices, with a particular doctrine about a supernatural power; Reich et al., 1999); or “thriving” (defined as a concept incorporating the absence of problem behaviors and the presence of healthy development, e.g., school success, leadership, helping others, maintenance of physical health, delay of gratification, valuing diversity, and, overcoming adversity; Scales et al., 2000). From this pool of items, independent coders were able to reliably categorize 13 spirituality items, 26 religiosity items, and 52 thriving items, leaving 91 items. Questions that dealt with specific religious traditions (e.g., Item 290, “How important is it to you to figure out what it means to be Jewish?”), were removed, leaving a total of 22 religiosity items. Due to the high number of items to be used in the confirmatory factor analysis, Dowling et al. (in press) used exploratory factor analysis as a

first step to identify those items that had the highest loadings and that potentially would be the best indicators of the three constructs. This process resulted in the retention of 47 items, 11 for religiosity, nine for spirituality, and 27 for thriving.

Using LISREL 8.53 (Jöreskog & Sörbom, 2002), Dowling et al. (in press) confirmed the presence of three first-order factors that defined the second-order factor of spirituality, i.e., orientation to do good work, participation in activities of self-interest, and orientation to help people other than the self; four first-order factors that defined the second-order factor of religiosity, i.e., impact of religious beliefs on self, religious views, religious restrictions of God on people; and role of a faith institution in one's life; and nine first-order factors that defined the second-order factor of thriving, i.e., rules for 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. Table 1 provides a list of the items for each first-order factors that are associated with each of the three second-order factors.

Insert Table 1 about here

Data analysis procedures

In the present analyses, the second-order factors of spirituality, religiosity, and thriving were operationalized without going through the respective sets of first-order factors but using the same indicators, and LISREL 8.53 was again employed to ascertain the structural relations that were hypothesized to exist among these three latent constructs.

Based on extant theory and research (e.g., Benson, 1997, Lerner et al., in press; Youniss et al., 1999) we anticipate that both spirituality and religiosity would be related to thriving. However we expected also that there would be an influence of spirituality on thriving that existed over and above any combined or mediated influence of religiosity on thriving. In other words, in the terms of Baron and Kenny (1986), we expected to find support for a fully mediated structural model.

Results

In order to test the expectation that spirituality would influence thriving over and above the mediated or combined influence of religiosity on this relation, we derived analyses to investigate the general hypothesis that religiosity is a mediator between spirituality and thriving. To test this hypothesis, three models were estimated through the use of LISREL 8.53, employing maximum likelihood estimation methods.

The first model is that of complete mediation (Baron & Kenny, 1986). This model includes the paths from spirituality to religiosity, from religiosity to thriving, and from spirituality to thriving (see Figure 2, Model 1). This fully mediated model reflects our key expectation that there would be an influence of spirituality on thriving that existed over and above any combined or mediated influence of religiosity on thriving. This model appears in Figure 2. The second model, also illustrated in Figure 2, is the mediation-only model. It includes only the paths from spirituality to religiosity and from religiosity to thriving (Model 2). Thus, this second model is hierarchically subordinate to Model 1. Figure 2 presents also a third model, one that includes only the paths from religiosity to thriving and from spirituality to thriving, thus depriving religiosity of the role of a mediating entity (Model 3). Model 3 is also hierarchically subordinate to Model 1.

Insert Figure 2 about here

Table 2 presents the covariance matrix among the YAP items used in the tests of these models and, as well, the table provides the means and standard deviations of the items. The model depicted in Figure 2 corresponds to the data well. This correspondence is presented in Figure 3, which shows also the standardized solution for each of the proposed paths. We obtained an overall goodness-of-fit $\chi^2 = 2441.28$ ($df = 998$), a reasonable value considering the size of the sample. The RMSEA is 0.049, indicating close fit. The non-normed fit index is 0.90, and the comparative fit index is 0.91. We thus retain the model of complete mediation (Model 1).

Insert Table 2 and Figure 3 about here

We next asked whether the two alternative and more parsimonious Models 2 and 3 fit the data equally well. Table 2 displays the comparison of the three models. From the comparison of Models 2 and 3 with Model 1 in Table 3, we conclude that the fit of the comparison models were significantly worse than the fit of the complete mediation model. In other words, each of the comparison models performs significantly below the complete mediation model. As such, the model that includes a path from spirituality to thriving, as well as the path of spirituality through religiosity to thriving, best fits the data from the YAP subsample tested in this research.

Insert Table 3 about here

Discussion

The developmental systems view of human development (Lerner, 2002) explains that, as a consequence of the influence of plasticity and adaptive developmental regulation, there exists the potential in every young person for healthy/successful development. In this view, youth who are dynamically engaged in mutually beneficial ways with their contexts are youth who will contribute positively to the healthy development of both self and society (Lerner et al., 2002; in press). While there are multiple relations between person and context that have been the focus of study in positive youth development, some recent theoretical discussions of the link between individuals and context have considered the role of youth spirituality and religiosity in mediating such mutually beneficial relations and in resulting in thriving among young people (Dowling et al., in press; Lerner et al., 2002; Lerner et al., in press; Youniss et al., 1999). These ideas stress that spirituality and religiosity may both play useful but not isomorphic roles in the development of thriving.

Interest in these ideas led to the present study, and to the test of the idea that spirituality had an influence on youth thriving beyond the moderating role of religiosity on a spirituality-thriving relation. Using the Search Institute (1984) data set, *Young Adolescents and Their Parents* (YAP), the results of the present, structural equation modeling analyses found that a fully mediated model that includes the paths from spirituality to religiosity, from religiosity to thriving, and from spirituality to thriving (what we labeled as Model 1) is a better fit to the present data set than are hierarchically-related,

reduced models that either lack the direct effect of spirituality on thriving or the mediating effect of spirituality on thriving through religiosity (yet retaining the relationship between the latter two). Accordingly, the present results are consistent with the idea that within the developmental system associated with exemplary positive development – i.e., with thriving – among youth, spirituality constitutes an important component of such functioning and one that is not fully commensurate with other key dimensions of an adolescent’s inner life, such as religiosity.

Indeed, in demonstrating that both spirituality and religiosity must be considered – and independently indexed -- as important parts of the developmental system linked to thriving among adolescents, the present findings provide a basis for the design of measurement and structural models in future, longitudinal analyses aimed at understanding if, when, and under what ecological conditions, and for what youth, spirituality and religiosity provide independent or combined sources of exemplary positive youth development.

However, such longitudinal analyses could profit also from additional analyses of the YAP data set. The YAP can be assessed further to better understand not only the relationship among religiosity, spirituality, and thriving among youth (for example, by testing the entire youth sample and differentiating age, gender, and race, but the results of these youth analyses from the YAP data set can also be compared with the parent data in this archive (e.g., to see if a goodness of fit among youth and parents in a particular second-order factor enhances the prediction of thriving and, if so, among which youth).

In addition, Search Institute has several other data sets in its archives that have as indicators items related to spirituality, religiosity, and thriving. For example, in the

Attitudes and Behaviors (A & B) data set, collected in the mid to late 1990s, there are items representative of all three of the constructs. Similar analyses to those conducted in the present research can be conducted with the A & B data set to confirm the operationalization of thriving that was used in the present study and was derived from the Dowling et al. (in press) analyses. Alternative approaches to the Scales et al. (2000) data analysis on the A & B data set may provide refinement of this thriving operationalization and, as well, allow for an assessment of whether the indices of religiosity and spirituality in the A & B data set covary with thriving in manners comparable to what has been found in the present analyses. In addition, alternative analyses to those used by Scales et al. (2000) may allow for an assessment of whether any refinement provided in the operationalization of thriving within the A & B data set has implications for the identification of developmental assets and other indices of positive youth development within this data set and, if so, for the linkage of these indices and thriving.

Additional data sets, specifically those that are longitudinal in design (e.g., the 4-H Study of Positive Youth Development; Lerner et al. 2003), that have indices which will allow for analyses of the link between religiosity, spirituality, and thriving, can provide information about whether the theoretical ideas about spirituality and thriving can be demonstrated across time. In terms of the generalizability of these findings, 98% of the youth in the YAP data set are Christian. Additional analyses with youth samples from diverse religious traditions are warranted (Fisher et al., 2002; Fisher, Jackson, & Villarruel, 1997; McLoyd, & Steinberg, 1998). Such analyses may be aimed at identifying whether or not the latent constructs of religiosity, spirituality, and thriving and the factors that define those constructs (see Dowling et al., in press) are comparable and, as well, if the linkage

among the three constructs, as ascertained in the present study, is found in more samples of youth with more diverse faith traditions.

In addition, the present interpretations are embedded within the theoretical model we used to frame this research and are limited to the present data set and the analytical techniques used to exploit it. Any combination of alternative definitions of the constructs, model, data set, or method might provide information about the structural relations among religiosity, spirituality, and thriving that contrasts with the data we have forwarded. For example, it will be useful in the future to ascertain if the structural relation between youth spirituality and thriving found in the present analyses of the YAP data set remain robust across analyses predicated on other possible operationalizations of these theoretically salient components of the developmental system.

For instance, if one were to have a model legitimizing the idea that spirituality only influenced thriving in the context of religion, or a model with non-directional correlations between spirituality and religiosity, the test of alternative SEM models would have been justified. However, in the absence of theoretical articulations of such alternative models, our present analytic choices were predicated on what we regarded as a viable theoretical position. Nevertheless, we welcome the presentation of alternative theoretical models, given that our own model leaves considerable variance unexplained. Simply, at this point in the development of this area of scholarship, we believe it is important and strategic for multiple theoretical models to be generated and empirically tested.

Finally, although the present paper focuses primarily on the structural relations among religiosity, spirituality, and thriving, there may also be functional implications of these structural patterns. For example, variance that is unexplained in the model that we

tested might be accounted for by the functioning (contributions) of youth-serving programs aimed at promoting *thriving* (Kerestes & Youniss, 2003; Youniss et al., 1999). In addition, the study of thriving should be extended beyond the domains of spirituality and religiosity to include individual, non-transcendent activities such as athletics. Moreover, the fact that religiosity and spirituality are not isomorphic means that, in regard to spirituality at least, programs that promote transcendence (e.g., nature-based programs), but do so without a religious content, may be valuable in promoting exemplary positive development.

In sum, both the structural relations among religiosity, spirituality, and thriving that we found and those that might be identified in future research, using both the present and alternative theoretical models, measures, and samples, along with the still-to-be-explained links among the structures and functions associated with them, suggest that this area of developmental scholarship is a rich and potentially useful one. Future research on understanding the nature of religiosity, spirituality, and thriving among adolescents will advance understanding of the bases of positive youth development and of the means that may be used to enhance it (Dowling & Dowling, 2003).

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Table 1. Corresponding items for the first-order factors for each second-order factor

<u>Religiosity First-Order Factors</u>	<u>Corresponding Items</u>
Impact Religious Beliefs	My religious beliefs affect my actions. My faith helps me when things are bad. How important is religion in your life?
Religious Views	I'm not sure what I believe about God. What is your view of God?
Religious Restrictions of God on People	God has a lot of rules for people. I believe God is very strict. God will punish me if I do wrong.
Role of a faith Institution in One's Life	How much do you go to a youth program? How much does your church or synagogue help you answers questions about life? How long have you gone to religious education class?
<u>Spirituality First-Order Factors</u>	
Orientation to Do Good Work	How friendly would you be to a new kid in school? How likely would it be for you to help a woman in trouble? How likely would it be for you to help a kid in trouble?
Participation in Activities of Self-Interest	How often do you party with both sexes? How many times have you dated in the past year? How much do you party with both sexes?
Orientation to Help People Other than Self	How much do you help others without pay? How important is it to you to find out how to help others? How often do you think about the government?

Table 1 cont.Thriving First-Order Factors

Rules for Youth Presented by Mother	Mother tries to explain why I am wrong. Mother lets me talk over the rules. Mother explains why rules are important.
Rules for Youth Presented by Father	Father tries to explain why I am wrong. Father explains why rules are important. Father helps me when I have a problem.
Presence of a Moral Compass	How wrong is it to ignore the teacher? How wrong is it to shoplift? How wrong is it to tell a lie?
Future Orientation/Path to Hopeful Future	Hope most for future to have perfect world. Hope most for future to get good job when I am older. Hope most for future to have world without war.
Search for a Positive Identity	How important is learning how to make friends? How important is it to find out what is special about you? How important is learning to talk with adults?
Personal Values	How important is it to have lots of money? How important is it to have things as nice as others? How important is it to do what you want?
Engagement with School	My teachers care a lot about me. How interesting is school to you? How do you feel about going to school?
View of gender equity	The father should make all the decisions Women are equal to men. Men should have more freedom than women.
View of diversity	Inter-racial marriage is wrong. I don't trust people of other races. How wrong is racial discrimination?

ons of the items

22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	

Table 3. Comparison of Three Mediator Models

Model	RMSEA	Non-Normed Fit Index	Comparative Fit Index	X^2 ; <u>df</u>	ΔX^2 ; Δ df to Model 1	$p(\Delta X^2)$
1	0.049	0.90	0.91	2441.28; 998	-	-
2	0.050	0.89	0.90	2510.20; 999	68.92; 1	< 0.01
3	0.049	0.89	0.90	2553.23; 999	111.95; 1	< 0.01

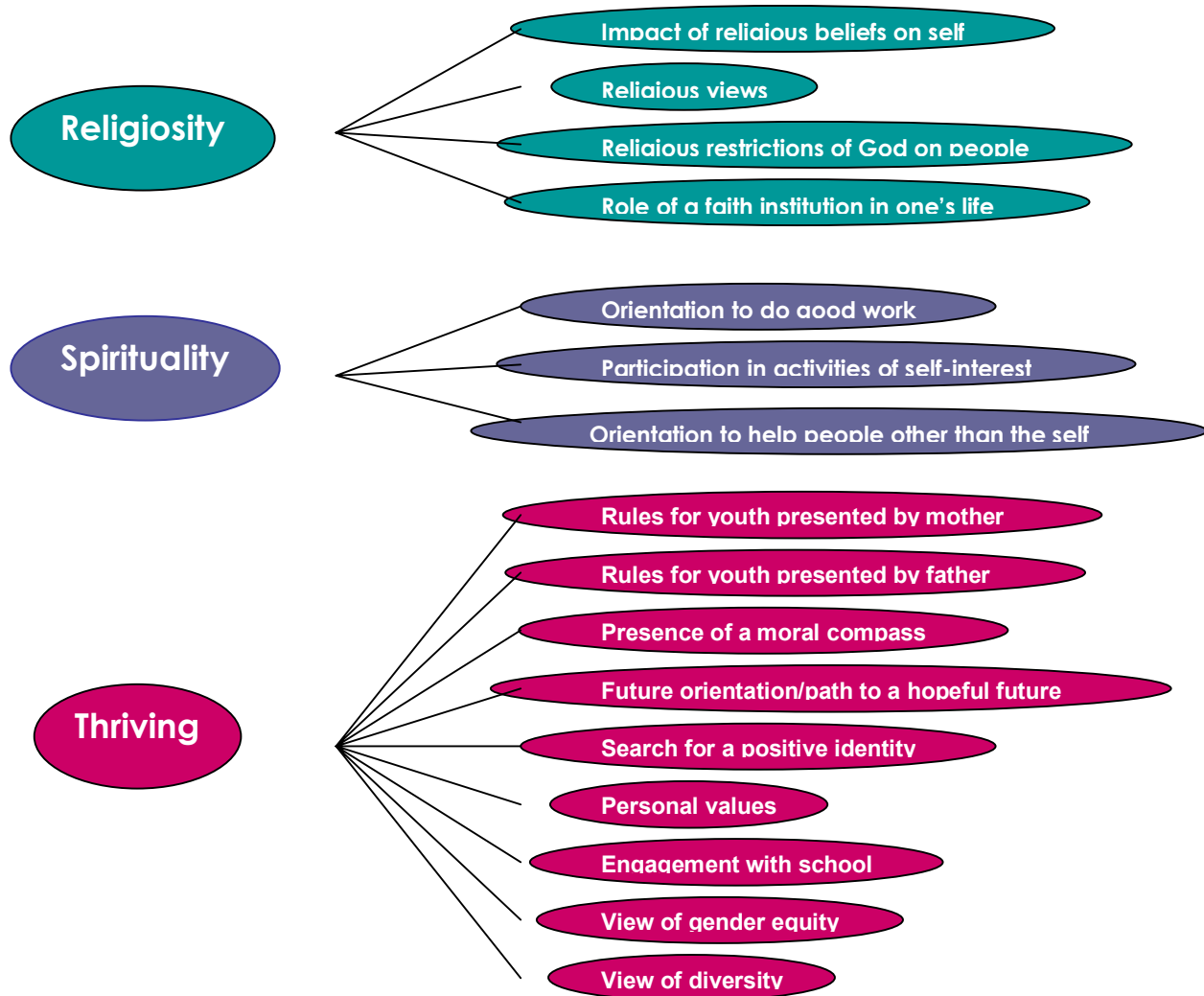
Note: Model 1 = Paths from spirituality to religiosity, from religiosity to thriving, and from spirituality to thriving; Model 2 = Paths from spirituality to religiosity and from religiosity to thriving; Model 3 = Paths from religiosity to thriving and from spirituality to thriving.

Figure Legends

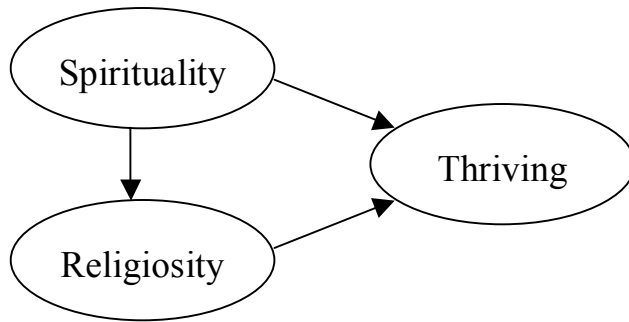
Figure 1. First- and second-order factors found by Dowling, et al. (in press).

Figure 2. Three models of possible structural relations among spirituality, religiosity, and thriving.

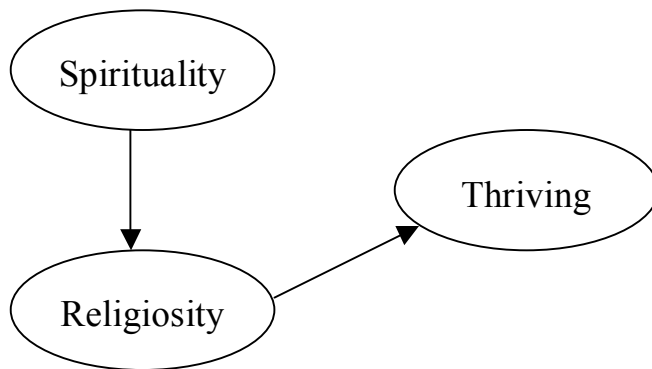
Figure 3. LISREL 8.53 path diagram for the test of Model 1, the fully mediated model involving the second-order factors of spirituality, religiosity, and thriving. (Note.– The standardized estimates for the proposed paths are presented; item numbers in the observed variable column refer to items in the overall 319 item YAP survey; see Dowling, et al., in press).



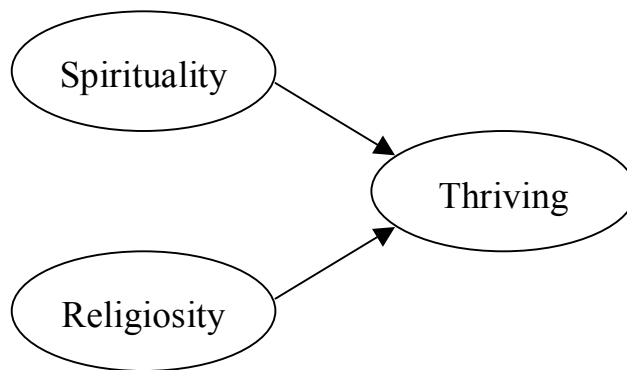
Model 1

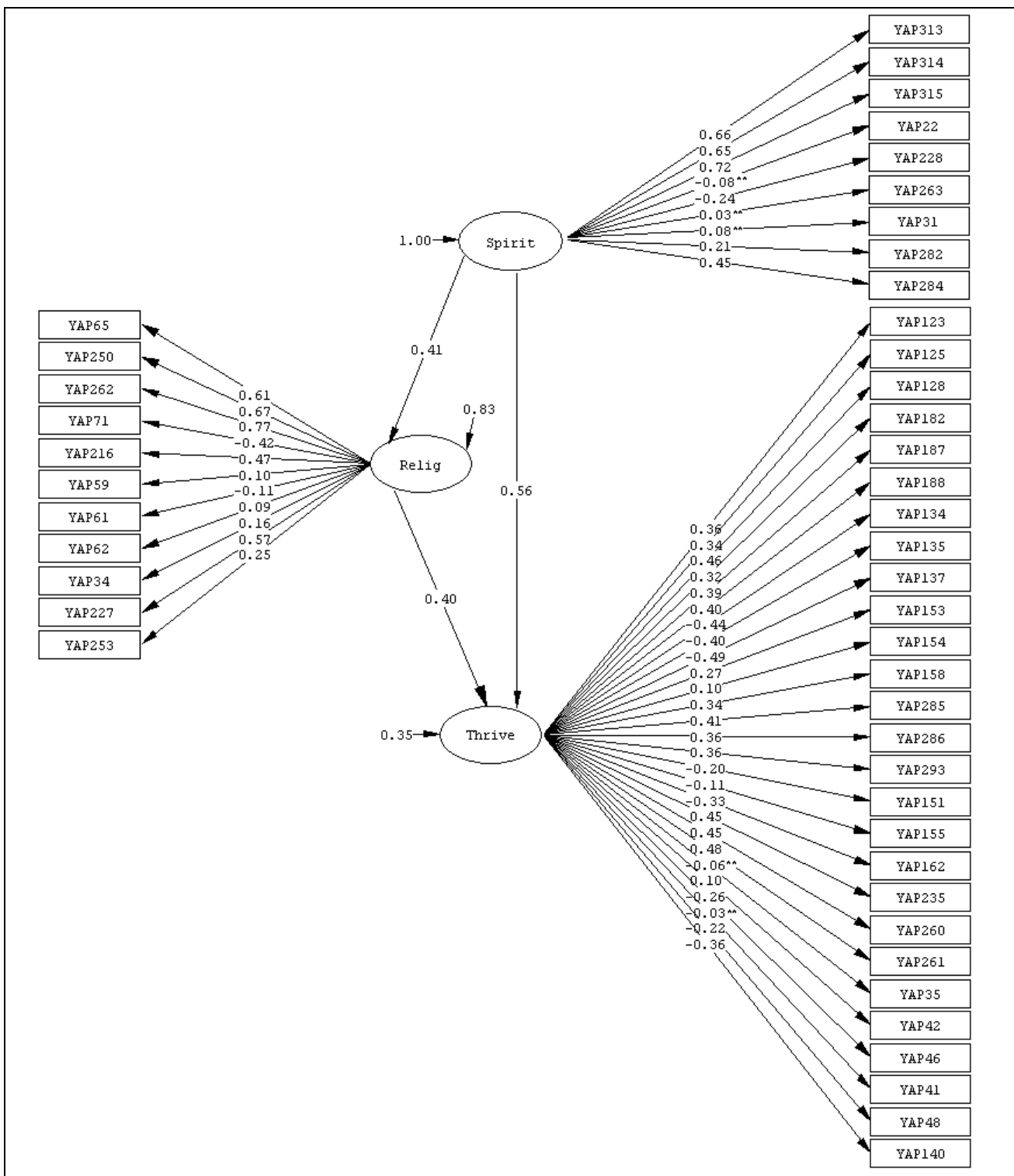


Model 2



Model 3





Note: All paths are significant ($p < .05$) except for those marked by asterisks. Labels within boxes are item number from the YAP survey.