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Introducing the Junior Spiritual Health Scale (JSHS): Assessing the impact
of religious affect on spiritual health among 8- to 11-year-old students

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Abstract

This study describes the developing and testing of a measure of spiritual health accessible to 8- to 11-year-old students that is consistent with the four-domain model as operationalised by Fisher's family of measures, but avoids explicit religious or theistic content. Data generated by 4,803 students in Wales confirm the rotated four-factor structure of the new 12-item measure and also the coherence of employing the total scale score as a unidimensional measure of global spiritual health ($\alpha = .90$). After taking personal factors (school year and sex) and psychological factors (extraversion, emotionality, and toughmindedness) into account, regression analysis demonstrated that religious affect contributed additional power to predicting higher spiritual health scores on this new measure that was not itself contaminated by explicit religious or theistic content. This instrument is commended as providing a sound foundation for assessing the spiritual health of primary school students within a variety of religious and non-religious schools.

Keywords: spiritual health, religious affect, children, personality

Introduction

The notion of spiritual health is an attractive concept, yet one that remains both elusive and contested (see, for example, Jaber, Momennasab, Yektatalab, Ebudi, & Cheraghe, 2019; Shaver, Michaelson, Whitehead, Pickett, Brooks, & Inchley, 2020). Since its inception in 1996, the *International Journal of Children's Spirituality* has made consistent and important contributions to advancing scientific understanding of these concepts. Analysis of the published papers draws attention to the way in which the initial contributions were rooted in theoretical and philosophical position papers (see, for example, Chater, 1998; Levine, 1999, Alexander, 1999; Yates, 1999; Long, 2000) or in qualitative empirical studies (see, for example, Fisher, 1999a, Kendall, 1999; Johnson & McCreery, 1999; Gay, 2000; Watson, 2000), with only an occasional quantitative study (see, for example, Davies, 1998, 2001; Scholefield, 2001). However, since the publication of Fisher's (2009) foundational paper on assessing spirituality and wellbeing among children and youth, quantitative studies concerning aspects of children's spirituality have played a more prominent role in the journal.

The challenge facing quantitative studies in the field of spirituality and spiritual health is rooted in the range of interpretations offered for the concept of spirituality itself. The recent review undertaken by Francis, Laycock, and Penny (2016) draws attention to the divide between those who conceptualise spirituality in religious or theistic terms, and those who draw a strong distinction between religion and spirituality. In their survey of 2,728 young people between the ages of 13 and 15 years, Francis, Laycock, and Penny (2016) reported that 41% described themselves as neither religious nor spiritual, 8% described themselves as religious and spiritual, 8% described themselves as spiritual but not religious, and 3% described themselves as religious but not spiritual, while the remaining 40% demonstrated that they were unsure about how to apply these four categories to themselves.

The conceptual problem regarding the distinction between religion and spirituality and the overlap between religion and spirituality is also reflected in the content of instruments that have been designed to measure spiritual health, spiritual wellbeing, or spirituality (see Fisher, 2009, 2015; Sifers, Warren, & Jackson, 2012; Stoyles, Stanford, Caputi, Keating, & Hyde, 2012; Mata-McMahon, 2016; Moore, Gomez-Garibello, Bosacki, & Talwar, 2016). Some of these instruments are heavily weighted toward religious content and theistic language, some eschew explicit reference to religious content and theistic language, and others try to differentiate between existential wellbeing and religious wellbeing. For example, the Spiritual Assessment Inventory (Hall & Edwards, 1996) and the Spiritual History Scale in Four Dimensions (Hays, Meador, Branch, & George, 2001) mainly comprise questions on transcendental issues and religion. Daaleman's Spirituality Index of Well-Being contains 12 items solely relating with self (Daaleman & Frey, 2004). Ellison's Spiritual Well-Being Survey presents ten items for each of two factors, labelled Existential Well-Being and Religious Well-Being (Ellison, 1983).

Operationalising and measuring spiritual health

The development and integration of quantitative literature within the broad area of spiritual health, spiritual wellbeing, and spirituality has been frustrated by the divergence in definition and operationalisation described above. The findings from disparate studies can only be securely integrated when there is agreement on the definition and on the measures employed. Within this context a significant advance has been made over the past two decades through the work of Fisher. In his initial study, Fisher (1998) built on an emerging consensus to define spirituality in relational terms, argued for the application of these relational terms to be applied in four domains, and offered the term 'spiritual health' to differentiate this conceptualisation from the wider usage of spiritual wellbeing and spirituality. In subsequent work, Fisher (2010, 2011) established a family of measures operationalising the

conceptualisation of spiritual health. It is this family of measures that has facilitated the integration of quantitative research findings within the field. The intention of the present paper is to clarify Fisher's understanding of spiritual health, to review Fisher's family of measures, and to propose and test the development of a new measure within this tradition.

According to Fisher, spiritual health is reflected in the *aggregated* quality of relationships that individuals experience within these four domains, namely: the personal domain, concerning relationship with the self; the communal domain, concerning relationship with other people; the environmental domain, concerning relationship with the environment; and the transcendental domain. It is the transcendental domain that is most problematic. In his conceptualisation of the transcendental domain, Fisher recognises the need to embrace the transcendental concerns of those who neither espouse explicit religion nor believe in God. For Fisher, the transcendental domain concerns the relationship of the self with something or someone beyond the human level, with a transcendent other, whether this be known as ultimate concern, cosmic force, transcendent reality, or God. In the transcendental domain, the human spirit nurtures a sense of trust and faith in, and a sense of adoration and worship for, the source of mystery at the heart of the universe. The practical problem concerns how such a broad notion can be operationalised and measured in a meaningful way that is accessible both to theists and to non-theists.

Fisher's main attempt to operationalise his four-domain model of spiritual health is through the Spiritual Health and Life-Orientation Measure (SHALOM: Fisher, 1999b, 2010). Gomez and Fisher (2003) demonstrated that SHALOM showed good reliability (Cronbach's alpha, composite reliability and variance extracted), and validity (construct, concurrent, discriminant, predictive and factorial independence from personality). Subsequent studies have examined the psychometric properties of SHALOM from a range of perspectives,

including studies reported by Gomez and Fisher (2005a, 2005b) and by Hall, Reise, and Haviland (2007). Other operationalisations of Fisher's four-domain model of spiritual health include the Spiritual Health in Four Domains Index (SH4DI; Fisher, Francis, & Johnson, 2000), Feeling Good, Living Life (Fisher, 2004), and the Feeling Good, Living Life Measure Revised (Francis, Fisher, Lankshear, & Eccles, 2018). In each of these measures the transcendental domain is nuanced in specific ways. In SHALOM, the transcendental domain is assessed by the following five items: I feel a personal relationship with the Divine/God; I worship the Divine/the creator; I feel oneness with the Divine/God; I feel peace with the Divine/God; and I feel prayer enriches my life. In the SH4DI, the transcendental domain is assessed by six items: religious belief; belonging to a faith community; perception of living as a response to God; personal relationship with God; reverence for God; and admiring God. In the Feeling Good, Living Life measure for children, the transcendental domain is assessed by four items: talking with your god; knowing your god is a friend; thinking about your god; and knowing your god cares for you.

In developing the Feeling God Living Life Measure Revised, Francis, Fisher, Lankshear, and Eccles (2018) argued that their intention was to construct an instrument 'specifically for application among 9- to 11-year-old students attending church primary schools' (p. 35). In this context they considered a theistic operationalisation to be appropriate, and they effected this with the following four items: I often talk with God; I often spend time thinking about God; I often feel that God is my friend; and I often feel that God cares for me.

First research objective

Against this background the first objective of the present study is to explore a fresh operationalisation of the Fisher four-domain model of spiritual health in a way that is accessible to 8- to 11-year-old students without presupposing explicit religious or theistic content. The approach taken is to identify one clear theme that makes each domain accessible

to the young learner, and to operationalise each theme through three items. The personal domain is expressed through focus on the relationship with the self (I have a good life. I am happy with my life. I feel good about myself). The communal domain is expressed through focus on the relationship with friends (I have good friends. I am happy with my friends. I feel good about my friends). The environmental domain is expressed through focus on relationship with the specific local place (I live in a good place/town. I am happy with my place/town. I feel good about my place/town). The transcendental domain is expressed through focus on the wider world (The world is good to me. I am happy living in the world. I feel good about the world).

Second research objective

The second research objective is to explore the connection between scores recorded on the newly proposed measure of spiritual health and explicit religiosity. This research question is set within the individual differences tradition within the psychology of religion established by Francis (1978a, 1978b) and subsequently evaluated by Francis (2009). This tradition argues that the attitudinal dimension of religion (religious affect) gets closer to the heart of religiosity during childhood and adolescence than either the cognitive dimension (religious belief) or the behaviour dimension (religious practice). Francis (1978a, 1978b) operationalised the affective dimension through the Francis Scale of Attitude toward Christianity, as an effective measure within Christian and post-Christian societies. Subsequently the research tradition has been extended to Muslim societies by the Sahin-Francis Scale of Attitude toward Islam (Sahin & Francis, 2002), to Jewish societies by the Katz-Francis Scale of Attitude toward Judaism (Francis & Katz, 2007), to Hindu communities by the Santosh-Francis Scale of Attitude toward Hinduism (Francis, Santosh, Robbins, & Vij, 2008), and to Sikh communities by the Athwal-Francis Scale of Attitude toward Sikhism (Francis, Athwal, & McKenna, 2020). Francis, Lankshear, and Eccles

(2017) have recently confirmed the internal consistency reliability and construct validity of the Francis Scale of Attitude toward Christianity among 8- to 11-year-old students in Wales.

Empirical studies concerned with exploring the connection between religious affect and measures of spiritual health need to take into account the way in which this connection may be contaminated by personal factors and by psychological factors. Religious affect among 8- to 11-year-old students is significantly predicted by sex and age: girls hold a more positive attitude toward religion than boys and younger children hold a more positive attitude than older children (see Francis, 2009). Religious affect is also predicted by Eysenck's three dimensional model of personality (see Francis, Lewis, Brown, Philipchalk, & Lester, 1995). Other recent work has shown that Fisher's measures of spiritual health are significantly related to these personal and psychological factors (see Francis & Fisher, 2015).

Research objectives

Against this background the present paper has two main aims. The first aim is to develop and to test a measure of spiritual health appropriate for use among 8- to 11-year-old children, embracing the four relational dimensions of the personal domain, the communal domain, the environmental domain, and the transcendental domain, in a way that does not presuppose explicit religious or theistic content. The second aim is to explore the connection between religious affect and spiritual health as operationalised by this new measure.

Method

Procedure

This study was implemented within the context of the Student Voice Project (see Francis, Lankshear, & Eccles, 2018). During the school year 2016-2017 all 149 Church in Wales primary schools catering for year six students were invited to participate in the survey and 88 schools accepted the invitation. The schools were asked to administer the questionnaire in normal class groups to all year-four, year-five, and year-six students

throughout the school. Students were asked not to write their name on the booklet. They were assured of confidentiality and anonymity, and given the choice not to participate. The study received approval from the St Mary's Centre Ethics Committee (SMC13EC001). All thoroughly completed questionnaires were returned by 4,803 students within the three year groups.

Measures

Religious affect was assessed by the Francis Scale of Attitude toward Christianity (FSAC) a 24-item instrument, developed originally by Francis (1978a, 1978b), concerned with affective response toward God, Jesus, Bible, prayer, and church. Each item was rated on a five-point scale: agree strongly (5), agree (4), not certain (3), disagree (2), and disagree strongly (1). In a recent study among 8- to 11-year-old students, Francis, Lankshear, and Eccles (2017) reported alpha coefficients among the three year groups ranging from .95 to .97.

Personality was assessed by the Junior Personality Scales in Three Dimensions (JPS3D) an 18-item instrument, developed by Francis, Lankshear, and Wilkinson (under review), comprising three six-item indices of extraversion, anxiety, and toughmindedness. Each item was rated on a five-point scale from agree strongly (5) to disagree strongly (1). Francis, Lankshear, and Wilkinson (under review) reported the following alpha coefficients: extraversion, .65; anxiety, .76; toughmindedness, .75.

Spiritual health was assessed by the newly proposed Junior Spiritual Health Scale (JSHS), an instrument fully reported in the present study, comprising three items to reflect each of the four relational domains discussed by the model of spiritual health advanced by Fisher (1998, 2010): personal domain, communal domain, environmental domain, and transcendental domain. The appropriateness of these items for the age range of the

participants had been explored by cognitive pilot testing. Each item was rated on a five-point scale from agree strongly (5) to disagree strongly (1).

Sex and age were coded as follows: sex, male (1) and female (2); age, year four (1), year five (2), and year six (3).

Participants

The 4,803 participants comprised 1,421 year-four students (726 boys and 695 girls), 1,729 year-five students (885 boys and 855 girls), and 1,653 year-six students (813 boys and 840 girls).

Data analysis

The data were analysed by the SPSS statistical package, employing the frequency, reliability, factor, correlation and regression routines.

Results

Employing these data from 4,803 students in Wales, the analyses confirmed the structure of the new 12-item Junior Spiritual Health Scale (JSHS) and supported the coherence of employing the total scale score as a unidimensional measure of global spiritual health. After taking personal factors (school year and sex) and psychological factors (extraversion, emotionality, and toughmindedness) into account, regression analysis demonstrated that religious affect contributed additional power to predicting higher spiritual health scores on this new measure that was not itself contaminated by explicit religious or theistic content. This overview of the findings is supported by the following detailed analysis supported by five statistical tables.

- insert table 1 about here -

Table 1 presents data concerning the internal consistency reliability of the 12 items comprising the Junior Spiritual Health Scale in terms of the alpha coefficient (Cronbach, 1951) and the correlations between the individual items and the sum of the other 11 items for

each of the three year groups. The alpha coefficients are consistent across the three year groups showing a high level of internal consistency reliability. The pattern of correlations is also relatively consistent across the three year groups with the highest correlation for each of these three years identifying the item 'I am happy with my life'. This relatively consistent pattern of correlations also supports the view that the literacy level of the items was as appropriate for the youngest year group of students as for the oldest year group.

Table 1 also presents the proportion of students across all three year groups who agree strongly with each item. These data show that the following proportions of students agree strongly that they are happy with their life (68%), happy with their place/town (72%), happy with their friends (75%), and happy living in the world (77%). The following proportion of students agree strongly that they feel good about themselves (58%), feel good about the world (64%), feel good about their place/town (69%), and feel good about their friends (72%). The following proportions of students agree strongly that the world is good to them (60%), that they have a good life (68%), that they live in a good place/town (73%), and that they have good friends (73%).

- insert table 2 about here -

While the Junior Spiritual Health Scale has been designed to produce an overall measure of spiritual health drawing together the four hypothesised domains, table 2 demonstrates that the four hypothesised domains are clearly recovered by confirmatory factor analysis, using varimax rotation, constrained to four factors. Whether or not this rotated solution justifies or requires the four recovered components to be regarded as separate constructs in future analyses is a judgement call drawing on two criteria: one conceptual and one statistical. The conceptual criterion concerns the coherence of regarding spiritual health as reflected in the *aggregated* quality of relationships. It is this conceptual view that the study was designed to promote and to test. The statistical criterion rests on two points. The first

point concerns the overall strength of the 12-item scale. With an alpha coefficient of .90 there is little justification for subdivision. The second point concerns the weight placed on the 3-item indices. Although the rotated factor solution recovered the identity of the four component structure, the notion of providing adequate measurement of these components with just three items is insecure.

- insert table 3 about here -

Table 3 summarises the scale properties of the five measures employed in the present study in terms of the alpha coefficient, means and standard deviation. The alpha coefficients demonstrate that the Junior Spiritual Health Scale, the Francis Scale of Attitude toward Christianity, and the two indices of emotionality and toughmindedness all function with satisfactory levels of internal consistency reliability. The index of extraversion is, however, less satisfactory.

- insert table 4 about here -

Table 4 presents the bivariate correlations between the two personal factors (school year and sex), the three psychological factors (extraversion, anxiety, and toughmindedness), and the two scale scores of primary concern (religious affect and spiritual health). Five features of these data deserve comment. First, while there are no significant sex differences in spiritual health scores or scores on extraversion, boys recorded significantly higher scores on toughmindedness and anxiety, and girls recorded significantly higher scores on religious affect. Second, all five scale scores showed significant decline with age, and especially so in respect of religious affect. Third, higher scores on religious affect were significantly associated with higher extraversion, lower anxiety, and lower toughmindedness. Fourth, higher scores on spiritual health were also significantly associated with higher scores on extraversion, lower scores on anxiety, and lower scores on toughmindedness. Fifth, there is a significant positive correlation between religious affect and spiritual health. It is this pattern

of bivariate associations that commend the strategy of taking personal factors and psychological factors into account before testing the association between religious affect and spiritual health. The proportions of variance accounted for by the three models demonstrate that the psychological factors are the most important, explaining 28% of the variance in scores recorded on the measure of spiritual health. An additional 3% of variance is accounted for by religious affect. This additional effect is not trivial.

- insert table 5 about here -

Table 5 presents the regression models designed to test the association between religious affect and spiritual health after taking personal factors and psychological factors into account. Model 1 demonstrates that sex and age account for a very small (but statistically significant) proportion of variance in spiritual health. Model 2 shows that the three personality variables considered together account for 28% of the variance in spiritual health. Model 3 show that religious affect accounts for an additional 3% of the variance in spiritual health. The beta weights in model 3 demonstrates that the two personality variables of extraversion and anxiety are the main predictors of individual differences in spiritual health. Good spiritual health is associated with high extraversion and low anxiety. The apparent association between low toughmindedness and good spiritual health suggested by the bivariate correlation is shown in the regression model as an artifact of the positive correlation between anxiety and toughmindedness. The beta weights in model 3 also demonstrated that when extraversion and anxiety are in the equation, religious affect makes an additional contribution to good spiritual health.

Conclusion

The present study identified two research objectives. The first objective was to develop and test a measure of spiritual health appropriate for use among 8- to 11-year-old children, embracing Fisher's model of the four relational dimensions of the personal domain,

the communal domain, the environmental domain, and the transcendental domain, in a way that does not presuppose explicit religious or theistic content. The new instrument was conceptualised and operationalised by proposing that: the personal domain was operationalised in terms of how the young participants felt about themselves and about their life; the communal domain was operationalised in terms of how the young participants felt about their friends; the environmental domain was operationalised in terms of how the young participants feel about the world. Data provided by 4,803 8- to 11-year-old students confirmed both that the four domains could be recovered by rotated factor analysis, and that the four domains cohere to generate a unidimensional scale with a high level of internal consistency reliability. On these grounds of face validity and internal consistency reliability, this new instrument, the Junior Spiritual Health Scale can be commended for further exploration.

The second research objective was to explore the connection between religious affect as operationalised by the Francis Scale of Attitude toward Christianity and spiritual health as operationalised by the new measure, the Junior Spiritual Health Scale. Data provided by 4,803 8- to 11-year-old students demonstrated that psychological factors, specifically extraversion and anxiety, served as key predictors of individual differences in spiritual health. Higher levels of spiritual health are associated with low anxiety and high extraversion. This finding is consistent with the more general finding that psychological wellbeing is associated with stable extraversion. This association was aptly captured by Eysenck (1983) in the aphorism ‘happiness is stable extraversion’ and has been repeatedly supported by studies that have explored the connection between the Eysenckian dimensional model of personality (Eysenck & Eysenck, 1975) and the Oxford Happiness Inventory (Argyle, Martin, & Crossland, 1989), the Oxford Happiness Questionnaire (Hills & Argyle, 2002), and the

Oxford Happiness Measure (Elken, Francis, & Robbins, 2010), as evidenced by Francis, Yablon, and Robbins (2014) and by Francis and Fisher (2015).

After taking personal factors (school year and sex) and these psychological factors (extraversion and anxiety) into account, religious affect accounted for additional variance in scores on the Junior Spiritual Health Scale. In other words, religious affect is associated with better spiritual health as assessed by a measure of spiritual health that contains no reference to explicit religious or theistic belief.

The first limitation with the present study is that it has been based on one specific sample of 8- to 11-year-old participants recruited within Church Wales primary schools. Further research is needed to test the psychometric properties of the Junior Spiritual Health Scale among other samples. The second limitation is that this new measure comprises only 12 items across the four domains model of spiritual health. Although the quasi independence of the four domains has been recovered by rotated factor analysis, it has been argued that the independent operationalisation of these four domains by only three items is insecure. Further research is needed to expand the number of items across each domain. The third limitation is that the present study has been conducted within one religious culture, namely a Christian or post-Christian context. Further research is needed to test the association between the specific operationalisation of spiritual health and religious affect in cultures shaped by other religious traditions. The present findings, however, are sufficient to commend the application of the Junior Spiritual Health Scale (JSHS) to assess the spiritual health of primary school students within a variety of religious and non-religious schools.

Disclosure statement

No potential conflict of interest was reported by the authors.

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Table 1

Reliability analysis: by year group

	Year 4 <i>r</i>	Year 5 <i>r</i>	Year 6 <i>r</i>	Total %
I have a good life	.65	.62	.69	68
I have good friends	.55	.54	.57	75
I live in a good place/town	.63	.56	.62	73
The world is good to me	.64	.60	.65	60
I am happy with my life	.69	.69	.71	68
I am happy with my friends	.59	.58	.59	75
I am happy with my place/town	.68	.62	.63	72
I am happy living in the world	.61	.66	.66	77
I feel good about myself	.63	.67	.65	58
I feel good about my friends	.64	.57	.51	72
I feel good about my place/town	.69	.64	.64	69
I feel good about the world	.48	.52	.56	64
Alpha	.90	.89	.90	

Note: *r* = correlation between the individual item and the sum of the other items

% = percentage of students endorsing the agree strongly response

Table 2

Factor analysis: varimax rotation

	Factor 1	Factor 2	Factor 3	Factor 4
I have a good life			.84	
I have good friends		.85		
I live in a good place/town	.84			
The world is good to me				.66
I am happy with my life			.80	
I am happy with my friends		.86		
I am happy with my place/town	.84			
I am happy living in the world				.64
I feel good about myself			.64	
I feel good about my friends		.79		
I feel good about my place/town	.83			
I feel good about the world				.86

Note: Factor loadings below .45 have been suppressed

The four factors account for 75.7% of the variance

Table 3

Scale properties

	N items	Alpha	Mean	SD
Spiritual Health Scale	12	.90	54.6	6.6
Extraversion	6	.62	24.0	4.1
Anxiety	6	.75	17.0	5.5
Toughmindedness	6	.75	10.2	4.4
Attitude toward Christianity	24	.97	90.1	23.9

Table 4

Correlation matrix

	Sex	Year	Reli	Toug	Anxi	Extr
Spiritual health	.01	-.06***	.31***	-.20***	-.39***	.41***
Extraversion (Extr)	-.01	-.04**	.20***	-.01	-.15***	
Anxiety (Anxi)	-.09***	-.07***	-.19***	.46***		
Toughmindedness (Toug)	-.27***	-.06***	-.26***			
Religious affect (Reli)	.09***	-.19***				
School year (Year)	.02					

Note: ** $p < .01$; *** $p < .001$

Table 5

Regression models

	r	Model 1 β	Model 2 β	Model 3 β
<i>Personal factors</i>				
Sex	.01	.01	-.03*	-.04**
School year	.06***	-.06***	-.06***	-.03*
<i>Psychological factors</i>				
Extraversion	.41***		.36***	.33***
Anxiety	-.39***		-.31***	-.30***
Toughmindedness	-.20***		-.06***	-.02
<i>Religious factors</i>				
Religious affect	.41***			.18***
R ²		.003	.283	.312
Δ		.003***	.280***	.029***

Note: * $p < .05$; ** $p < .01$; *** $p < .001$