

Differential Effects of Family Structure on Religion and Spirituality of Emerging Adult Males and Females

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Abstract This study examined measures of religion and spirituality in a sample of male and female emerging adult college students whose parents were either divorced or intact using the Personal Religious Inventory, the Duke University Religion Index, the Daily Spiritual Experiences Scale, the Spiritual Transcendence Scale, and the Spiritual Involvement and Beliefs Scale. Data were collected online, and 66% of participants received extra credit for participating. A main effect of sex was found, as females reported significantly higher scores than men on all but one measure of religion and spirituality, and the dataset was separated by sex. No differences were found between males from divorced and intact families. However, females from intact families scored significantly higher on all religion and spirituality measures than females from divorced families. This study suggests that females may respond differently than males to their parents' divorce in the context of religion and spirituality, and discusses possible reasons.

Keywords Emerging adults · Parental divorce · Religion and spirituality · Sex differences

Introduction

Shortly after the divorce rate in the USA neared 50% in 1975, there was a proliferation of research investigating the effects of divorce on children. Initially, it was assumed that divorce was detrimental to children's mental health, a view that originated in research on father absence (Sears et al. 1946). Subsequently, it was reported that divorce was detrimental to children, as reported in a series of publications by Hetherington and colleagues (e.g., Hetherington 1966; Hetherington et al. 1976, 1978). Early evidence provided support for the physical wholeness position or family structure hypothesis that suggested divorce in

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and of itself was detrimental to children (Bowerman and Irish 1962). However, review articles (Emery 1982; Herzog and Sudia 1973; Kalter and Renebar 1981) and empirical evidence (Bowlby 1973; Dancy and Handal 1984; Enos and Handal 1986) began to appear in the 1970s and 1980s that it was not the physical wholeness hypothesis which explained negative outcomes in children of divorced parents, but rather the psychological wholeness position. Originally reported by Dancy and Handal (1984), this position suggested that the family's overall quality of life, not simply *structure*, was the important factor in child and adolescent adjustment. Research on this conception suggested that the presence of interparental and perceived family conflict was the salient variable which placed children at risk in terms of mental health outcomes (Amato et al. 1995; Borrine et al. 1991; Emery 1989; Gähler and Garriga 2013; Yárnoz-Yaben and Garmendia 2016).

Research into the area of perceived family conflict demonstrated statistically and clinically significant results for children (Handal et al. 1998), adolescents (Borrine et al. 1991; Enos and Handal 1986; Kleinman et al. 1989), and young adults (Nelson et al. 1993). These studies demonstrated that children, adolescents, and young adults who perceived high levels of family and interparental conflict tend to score above a clinically validated cutoff on an epidemiological measure of distress and need for treatment, while those who perceived low levels of conflict in their family tend to score below the cutoff.

Currently, an area of increased research is that of the relationship between family structure (i.e., divorced vs. intact families) and religion and spirituality. This sharp increase in interest appears to follow the rise in empirical psychological research on religion and spirituality. Generally, much recent research in this area seems to indicate that children from divorced families are significantly less religious than children from intact families on different dimensions of religion and spirituality (Zhai et al. 2007, 2008). However, a closer look at the literature on this topic raises two significant methodological concerns.

The first methodological issue entails the measurement of religion and spirituality. Specifically, the instruments used to assess these constructs need to be both reliable and valid measures of religion and spirituality. However, in reviewing the literature, it is common to find measures of religion and spirituality that do not demonstrate appropriate psychometric properties; rather, measures are frequently developed for use in a particular study. Further, such measures do not have reported reliability and validity associated with them. For example, Milevsky and Leh (2008) and Ellison and colleagues (2011) utilized originally developed, *single-item* measures for the assessment of extrinsic and intrinsic religiosity, religious attendance, and religious and spiritual beliefs. Zhai and colleagues (2007) also developed measures of religion solely for use in their study instead of utilizing measures with previous research on their reliability and validity. In order to make the research more generalizable and replicable, the use of psychometrically sound measures of religiosity, spirituality, and beliefs associated with them is warranted.

The second methodological issue concerns data analysis. Previous research (Gallup and Lindsay 1999) frequently reported that women are significantly more religious than men. However, some studies did not determine whether significant differences existed between men and women in their sample. Rather, they collapsed men and women into a combined sample and performed analyses on the entire sample (Ellison et al. 2011; Zhai et al. 2007). In addition to data indicating that women are more religious than men, other literature has suggested that females are generally more tolerant and open to divorce compared to their male counterparts (Axinn and Thornton 1996; Kapinus and Johnson 2002; Kapinus and Flowers 2008). Some research has found that men and women respond to parental divorce differently (Evans and Bloom 1997). Other literature has suggested that women of divorced parents may be more likely to enter their own marriages with lower levels of

commitment toward and subsequent confidence in their marriages' future (Whitton et al. 2008). Taken together, these findings suggest that the variables of parental divorce, sex, and one's own religiosity and spirituality are related, though no direct causal or mediated relationship has yet been established. These differences are worth further investigation.

The present study was designed to address the methodological issues previously described. It was designed to systematically investigate the effect of divorce on religion and spirituality of emerging adult males and females. This was accomplished by comparing male and female emerging adults from divorced and intact homes on measures of psychological distress, religiosity, and spirituality, each of which was multidimensional, psychometrically robust measure. In addition, in order to ensure generalizability to other samples of emerging adults, a psychometrically sound epidemiological measure of psychological distress was included in the present study.

Methods

Participants

Participants were recruited from undergraduate courses at a religiously affiliated Midwestern University. Only participants whose parents were either married or divorced were included in the study. The final sample of 511 persons contained 449 (87.9%) with married parents (133 males), and 62 (12.1%) with divorced parents (27 males). Ages ranged from 18 to 25 ($M = 19.42$, $SD = 1.43$).

Participants were predominantly Caucasian (75%), 11.3% identified as Asian or Asian American, 3.5% as South Asian or Indian American, and 2.1% as Hispanic or Latino. Two percent identified as Black or African American, 1.2% as Middle Eastern or Arab American, and .3% (one individual) each identified as "white" or "Greek."

Participants were predominantly first-year undergraduate students (53.3%), 20.3% were sophomores, 17.4% were juniors, 8.2% were seniors, and .8% were fifth-year seniors or beyond. Family income ranged from less than \$40,000 (4.3%) to above \$160,000 (24.4%) with a median family income between \$100,000 and \$120,000.

Measures

Psychological Distress

The Langner Symptom Survey (LSS; Langner 1962) is one of the most widely used epidemiological measures of psychological distress and need for treatment (Dooley and Catalano 1979) and contains 22 items. It assesses sleep difficulties, somatic symptoms, feelings of loneliness and low spirit, cognitive difficulties, and anxious and depressive symptomatology. Examples of items on the LSS include: "Do you feel somewhat apart even among friends (apart, isolated, alone)?" and "I have personal worries that get me down physically (make me physically ill)." Each item is scored dichotomously with a score of 0 or 1, indicative of either the absence or presence of target symptom, respectively. LSS scores range from 0 to 22, and higher scores represent greater psychological distress and need for treatment. The LSS has demonstrated good psychometric properties (Cochrane 1980). The LSS shows good validity as it has accurately identified more than 84% of adult inpatients and outpatients from healthy controls (Langner 1962) and has

demonstrated an overall identification rate of 79% in an adolescent population (Handal et al. 1993). Langner (1962) and Handal and colleagues (1993) reported a valid cutoff score of 4 or higher to accurately identify psychologically distressed adults and adolescents, respectively.

More recently, Handal et al. (2014) provided discriminant validity for a cutoff score of 5 on the LSS to denote distress and need for treatment in emerging adult populations. In this study, college students currently in treatment had a mean LSS score of 7.35 (SD = 2.75), which was significantly higher than students previously in treatment who reported a mean LSS score of 4.86 (SD = 3.60) and students who never had been in treatment reported a mean LSS score of 3.49 (SD = 3.98). Each group was significantly different from one another, and the use of the cutoff score of 5 resulted in a 70 percent accuracy rate.

Religiosity Measures

The Personal Religious Inventory (PRI; Lipsmeyer 1984) is a 45-item, nine-scale, multi-dimensional measure of religion. Its scales measure personal prayer (PRP), ritual attendance (RA), non-ritual, church-related activities (NRA), belief in God (BLFGOD), and belief in an afterlife (AFTLIFE). Its other scales include the perceived congruence of one's religious beliefs with his or her attitudes on social or moral issues (RSM), the degree to which one's ideas of religion guide his or her philosophy (IDEO), one's subjective experience of closeness to God (CLS), and the integration and influence of one's relationship with God on his or her cognition, affect and mood, and behavior (INT). Most items incorporate a 6-point Likert scale, though some use a multiple-choice or dichotomous yes/no format.

Lipsmeyer (1984) reported test–retest reliability coefficients over a one-week period were between .83 and .97 for each of the nine subscales within an adult population. Further, Lipsmeyer (1984) noted that the PRI had high concurrent validity as religiously involved professionals (e.g., clergy) scored significantly higher than those in a sample of the general population. Also, Lipsmeyer (1984) reported that atheists, agnostics, and those with no stated religious preference scored significantly *lower* than other major religious groups. The INT scale was reported to be the best single measure of religion (Ross et al. 2009). Validity for the PRI and its scales has been reported in relation to adjustment in adolescents (Mosher and Handal 1997), emerging adults (Low and Handal 1995), and adults (Crawford et al. 1989).

The Duke University Religion Index (DUREL; Koenig and Büssing 2010) is a five-item measure of religious involvement that is incorporated in epidemiological surveys investigating the relationship between religion and health outcomes. The DUREL was established for use in cross-sectional and longitudinal studies. It evaluates three primary dimensions of religion: organizational religious activity; non-organizational activity; and intrinsic/subjective religion. The DUREL has displayed excellent test–retest reliability (intraclass correlation coefficient = .91), good to excellent internal consistency with Cronbach's alphas ranging from .78 to .91, and high convergent validity with other measures of religion and religiosity. Other extensive reliability and validity data have been provided by Koenig and Büssing (2010).

Spirituality Measures

The Daily Spiritual Experiences Scale (DSES; Underwood and Teresi 2002) is a 16-item scale that asks participants to denote how often they have certain spiritual experiences.

Responses range from never (1) to many a day (6). Higher scores reflect a higher level of daily spiritual experiences ($\alpha = .96$). Scores were summed for each respondent and averaged across 16 items. One item (“In general, how close do you feel to God?”) is reverse-scored in a 4-point metric (not at all, somewhat close, very close, as close as possible) instead of a 6-point scale. To be consistent with the directionality (Underwood 2006), the raw score of this item is reverse-coded and the 4-point scale is adjusted to fit the 6-point spectrum. The adjusted score was averaged for this subscale into the total for the resulting mean score. Further, the scale was divided into two subscales: a “theistic” subscale, with an alpha reliability of .95, and a “non-theistic (self-transcendent)” subscale, with an alpha reliability of .90 (Ellison and Fan 2008). Underwood and Teresi (2002) reported appropriate levels of validity for the measure, which have been supported further by Ellison and Fan (2008).

The Spiritual Transcendence Scale (STS; Piedmont et al. 2009) is a 24-item scale consisting of three subscales: universality, prayer fulfillment, and connectedness. Universality is the belief in the unity and purpose of life; prayer fulfillment is a feeling of joy and contentment resulting from prayer or meditation; and connectedness is a sense of personal responsibility and connection to others. The scale items were answered on a Likert scale from 1 (strongly agree) to 5 (strongly disagree). Piedmont et al. (2009) showed these scales to have acceptable reliabilities, including .83 for universality, .87 for prayer fulfillment, and .64 for connectedness.

The Spiritual Involvement and Beliefs Scale (SIBS; Hatch et al. 1998) was designed to measure the spiritual status of respondents. It is comprised of four subscales. The first is an external/ritual scale ($\alpha = .98$), consisting of 13 items reflecting belief in a greater power. Second is an internal/fluid scale ($\alpha = .74$), comprised of 11 items which reflect internal beliefs and growth. Third is an existential/meditative subscale ($\alpha = .70$), consisting of seven items which encompass existential issues. Fourth is a humility/personal application subscale ($\alpha = .51$), comprised of four items reflecting personal humility and application of spiritual principles. The internal consistency of the SIBS has been reportedly high ($\alpha = .92$), and test–retest reliability has been demonstrated to be high ($r = .92$; Hatch et al. 1998). Validity has been reported by Hatch and colleagues (1998) via factor analysis.

Demographic Questionnaire

Participants completed a 22-item demographic questionnaire. These items asked about participants’ age, ethnicity, sex, religious affiliation, parental marital status, college living arrangement, academic performance, volunteer and work positions, and whether one identified as spiritual, religious, both, or neither.

Procedure

IRB approval was obtained before data collection began. Participants were part of a larger study and were recruited from undergraduate psychology classes. Some classes (approximately 66%) offered class credit for participation, while the other classes were not offered incentives for participation. Participants accessed the study via SONA, a university-approved research recruitment program, or through a link provided to them by professors who helped with recruitment. After accessing the study, they were directed to a link to the Qualtrics site hosting the survey. Participants first answered the demographic questionnaire. Then, participants completed the LSS, DSES, STS, SIBS, PRI, and DUREL in order. Only participants with complete datasets were included for analysis.

Results

In order to determine whether sex differences existed on measures of religion, spirituality, or psychological distress, a multivariate analysis of variance (MANOVA) was performed. Results revealed a significant MANOVA, $F(13, 497) = 1.96, p = .02$, Wilks' $\Lambda = .95$, partial $\eta^2 = .05$, indicating sex differences existed within this dataset. Females had significantly higher scores on every measure of religion and spirituality than males, except for the STS. No differences on the LSS were noted between men and women.

Table 1 presents the means and standard deviations for all religion, spirituality, and psychological distress measures for males and females from intact and divorced families. As shown in Table 1, the means and standard deviations for all variables are similar to those reported elsewhere in the literature (Hatch et al. 1998; Koenig and Büssing 2010; Lipsmeyer 1984; Piedmont et al. 2009; Underwood 2006).

In order to determine whether significant differences existed on measures of religion, spirituality, or psychological distress between males from divorced and intact families, another MANOVA was performed. Results revealed a nonsignificant MANOVA, $F(14, 145) = 1.04, p > .42$, Wilks' $\Lambda = .91$, partial $\eta^2 = .09$, indicating that for males, no significant differences existed on measures of religion, spirituality, or psychological distress between males from divorced or intact families. Means, standard deviations, univariate F , and p values are provided in Table 1.

In order to determine whether significant differences existed on measures of religion, spirituality, or psychological distress between females from divorced and intact families, another MANOVA was performed. Results revealed a significant MANOVA, $F(14, 336) = 2.01, p < .02$, Wilks' $\Lambda = .92$, partial $\eta^2 = .08$. Comparisons revealed that females from divorced and intact families differed significantly on every measure of religion and spirituality, but not on the LSS. Specifically, females from intact families scored significantly higher (i.e., report greater levels of religion and spirituality) than females from divorced families. Means, standard deviations, univariate F , and p values are provided in Table 1.

Had the present study not assessed for sex differences between men and women on measures of religion and spirituality, the results would have been quite different. To illustrate this point, a MANOVA was performed based on the combined sample of men and women in which the independent variable was parental marital status (i.e., intact or divorced) and the dependent variables were measures of religion, spirituality, and psychological adjustment. The results of this analysis revealed a main effect of parental marital status, $F(14, 496) = 1.94, p = .02$, Wilks' $\Lambda = .95$, partial $\eta^2 = .05$. These results show that those with married parents had significantly higher scores on every measure of religion and spirituality than those of divorced parents. This result is similar to those reported elsewhere (e.g., Milevsky and Leh 2008; Zhai et al. 2007) who did analyses on a combined sample of men and women and reported those with married parents reported higher levels of religion and spirituality than those with divorced parents.

Discussion

The present study offers several primary findings. First, means and standard deviations of the dependent variables are comparable to those reported elsewhere in the literature (Hatch et al. 1998; Koenig and Büssing 2010; Lipsmeyer 1984; Piedmont et al. 2009; Underwood

Table 1 Means and standard deviations of males and females from divorced and intact families and analyses

Measure	Males				Females			
	Intact	Div	F	<i>p</i>	Intact	Div	F	<i>p</i>
PRP	14.47 (5.96)	13.78 (6.58)	.29	.59	16.24 (5.60)	11.37 (6.49)	23.05	<.01**
RA	12.03 (5.12)	10.67 (5.28)	1.58	.21	12.87 (5.45)	9.37 (5.66)	12.87	<.01**
NRA	9.21 (4.40)	8.85 (5.15)	.14	.71	10.41 (4.50)	7.49 (4.18)	13.48	<.01**
IDEO	7.89 (2.35)	7.78 (2.33)	.06	.81	8.43 (2.13)	7.34 (2.74)	7.69	<.01**
RSM	30.81 (5.91)	29.85 (7.19)	.55	.46	31.93 (6.38)	29.71 (6.03)	3.81	.05*
INT	68.59 (20.61)	69.96 (19.31)	.10	.75	76.46 (20.25)	60.51 (27.60)	18.04	<.01**
BLF	4.82 (1.55)	4.78 (1.72)	.02	.88	5.16 (1.32)	4.20 (1.89)	15.07	<.01**
AFT	3.89 (1.28)	3.85 (1.43)	.02	.90	4.22 (1.11)	3.46 (1.42)	13.89	<.01**
CLS	2.99 (1.16)	2.67 (1.14)	1.70	.19	3.16 (1.09)	2.31 (1.11)	18.85	<.01**
DSES	52.38 (16.31)	49.15 (18.76)	.84	.36	58.79 (16.39)	47.89 (18.43)	13.60	<.01**
STS	82.05 (13.29)	86.07 (12.73)	2.08	.15	85.85 (11.79)	79.09 (14.26)	9.91	<.01**
SIBS	83.78 (13.14)	86.41 (14.13)	.87	.35	89.53 (13.96)	79.74 (16.73)	14.87	<.01**
DUREL	9.20 (3.22)	9.00 (3.59)	.08	.78	10.27 (3.27)	7.77 (4.19)	17.30	<.01**
LSS	3.59 (3.42)	3.89 (3.75)	.17	.68	3.81 (3.08)	3.91 (3.35)	.038	.85

PRP personal prayer, *RA* ritual attendance, *NRA* non-ritual, church-related activities, *IDEO* degree to which one’s ideas of religion guide his or her philosophy, *RSM* congruence between religious beliefs with attitudes on social/moral issues, *INT* integration of relationship with God on cognition, affect, and behavior, *AFT* belief in an afterlife, *CLS* closeness to God, *DSES* Daily Spiritual Experiences Scale, *ST* Spiritual Transcendence Scale, *SIBS* Spiritual Involvement and Beliefs Scale, *DUREL* Duke University Religion Index *p* values equal to or less than .05 are denoted by an asterisk (*). *p* values equal to or less than .01 are denoted by two asterisks (**). For the columns titled “Intact” and “Div,” means are listed with standard deviations in parentheses

2006). This means that these results may be generalized to other samples of emerging adults in university settings. Second, similar to previous research (Gallup and Lindsay 1999; Schnabel 2015), there was a main effect of sex on levels of religiosity and spirituality. Overall, females self-reported significantly higher levels of religion and spirituality than their male counterparts. This was observed for every measure of spirituality and religion except for the STS. As expected, no statistical differences between men and women were observed on the widely used epidemiological measure of psychological distress (LSS). These findings support the need to assess for a main effect of sex in research utilizing measures of religiosity and spirituality, as some previous research did not do (Ellison et al. 2011; Zhai et al. 2007).

The third and arguably most important finding is the observed differential pattern of results on these measures for men and women of divorced or intact families. For men, parental marital status did not significantly relate to their self-reported levels of religion or spirituality, as none of the measures displayed a significant difference between groups for men. However, for women, parental marital status did significantly relate to their reported levels of religion and spirituality. Women with married parents scored significantly higher than women with divorced parents on every measure of religion and spirituality included in the present study. These findings showed not only a significant decrease in ritual attendance in females from divorced families compared to those from intact families, but lower

ratings across the multidimensional measure of religion, including decreases in differences in closeness to God, personal prayer, and integration. Thus, it seems that parental divorce has a different relationship on religion and spirituality for men and women. As such, it is recommended for future research to investigate whether or not sex differences exist on measures of religion and spirituality and to perform separate analyses by sex to analyze differential patterns of relationships.

The present study raises questions as to *why* the effect of parental divorce is different for men and women. It may be that women and men employ different coping styles after parental divorce. Evans and Bloom (1997) noted that men and women may respond differently to their parents' divorce. They found that males and females from divorced and intact families in their sample displayed unique patterns of differences on measures of self-esteem, sex-role orientation, ego development, and attachment style, but did not include measures of religion or spirituality. Warner et al. (2009) noted that parental divorce may be experienced as a spiritual trauma, or sacred loss or desecration with the result being the occurrence of significant spiritual struggles. These spiritual struggles may result in disaffiliation with organized religion and overall decrease in religiosity and spirituality. Alternatively, active religious orientation and involvement may serve as a protective factor against divorce; however, it remains unclear why this phenomenon would be unique to women. Further research investigating the reasons *why* this differential pattern between men and women is observed is warranted.

The first limitation of this study is that these results were found in a private, religiously affiliated, Midwestern University. While the means and standard deviations are similar to those reported elsewhere in the literature, future research is needed to determine whether these same results would be found in a group of male and female emerging adults in public and private, non-religiously affiliated universities across a diverse geographical region. The second limitation of this study employed a monomethod (i.e., self-report only) to obtain data. While all of the measures employed in this study possess appropriate psychometric properties, future research may incorporate measures other than self-report, such as behavioral measures. The third limitation is that the present study did not investigate potential mediators and moderators. Family conflict has been shown to be a salient variable in the adjustment of children. It is also possible that factors, such as strength of religious conviction, may serve as moderator variables.

Compliance with Ethical Standards

Conflict of interest Both authors declare that they have no conflicts of interest.

Ethical Approval This article does not contain any studies with animals performed by any of the authors. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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