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# Used Sources of Spiritual Growth for Spanish University Students

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**Abstract:** Although some research has suggested means of promoting spiritual development in higher education, no systematic studies or literature reviews have been conducted to know what sources are most used for the spiritual growth of university students. This aspect was studied in a sample of 309 Spanish university students (Mean age = 21.40, range 18–25). The used sources were (in descending order) as follows: the practice of a virtuous behavior, cognitive-reflexive, nature-based, cultural, and religious sources. Women showed a higher use of cognitive-reflective and virtuous behavior-based sources. Age was related only and negatively to the use of religious sources. These results are consistent with previous studies indicating a greater religiosity in women and a lesser importance of religion in contemporary society and, particularly, in the life of young adults. However, taken as a whole, they indicate the importance of sociological and cultural aspects, in particular of the movement from traditional religiosity to religious indifference and dissatisfaction with institutional religion and/or toward spiritual movements linked to humanistic religions and spiritualities of life. It also points out the need to use a variety of strategies to foster the spiritual development of students.

**Keywords:** sources for spiritual growth; religion; spirituality; young adults

## 1. Introduction

A large number of research studies and theoretical developments have affirmed the role of religion and spirituality in adaptation, health, and quality of life (e.g., [Luehr and Holder 2016](#); [Peres et al. 2017](#)) throughout the life cycle, with a spotlight on those that influence the positive development of children and adolescents (e.g., [Pandya 2017](#); [Roehlkepartain et al. 2006](#)), and the physical and mental health of the elderly (e.g., [Krause et al. 2013](#)). Less attention, however, has been paid to the study of development and spiritual growth in the intermediate stages of life, although the quantity of work on this from the past decade shows both the social relevance and the scientific community's increasing interest in spirituality in emerging adulthood. Emerging adults range from 18 to 29 years of age ([Barry and Abo-Zena 2014](#)), although the upper age limit is variable, with emerging adults grouped either with adults or adolescents in the literature ([Arnett 2004](#)). Emerging adults focus their energies on identity development ([Arnett 2004](#)). As a consequence, they seek to explore aspects that include religiousness and spirituality. Both involve the search for the sacred, but religiousness focuses this search within a (religious) institution ([Pargament et al. 2013](#)). Interpersonal variations in spiritual and religious development implies the integration of person and systems-based analysis of aspects of the context (i.e., context, social position, gender, sexuality, culture) ([Mattis et al. 2006](#)), being spiritual development conceptualized as a spiral process where individuals accept or reject different theoretical conceptualizations that illustrate “different pathways for the progression toward a more mature and independent faith across this decade” ([Barry and Abo-Zena 2014](#), p. 5).

Because of the relevance and implications of these processes of religious and spiritual development, different studies have addressed their influence and impact on psychological well-being (Lindholm et al. 2011; Luehr and Holder 2016), the influence of dimensions of religion and spirituality on learning (e.g., Muñoz-García 2013; Scheindlin 2008), the positive and negative outcomes associated with religiousness and spirituality, and the experience of meaning-making (e.g., Barry and Abo-Zena 2014).

Part of this approach has been centered in the study of the spiritual development of emerging adults in higher education, for example by addressing the role of universities in the promotion of spiritual development (Lindholm et al. 2011) and the understanding of the spiritual development of the university student (e.g., Astin et al. 2010).

In this last research area, Lindholm et al. (2011) published a national study on the spiritual development of university students in the United States, conceptualizing spirituality with regard to the subjective internal life, in contrast to the realm of physical objects and observable behavior. Spirituality comprised affective experiences, values and ideals, questions and meanings associated with meaning and purpose in life, and connection with others and with the world. It also includes experiences such as intuition, inspiration, and the mysterious, which may or may not be expressed in a religious manner, and mysticism. The study by Lindholm et al. revealed the widespread importance of spiritual search for the majority of the students and the role of universities in facilitating spiritual development through curricular programs and complementary activities. All these means served to stimulate the students' "internal lives" on the growth in leadership and academic skills, intellectual self-confidence, psychological well-being, and satisfaction with the university experience.

The description of the proposed means of spiritual development of the university student is contextualized within the broader framework of the promotion of spiritual development throughout the life cycle. Members of the entire university community took part in the proposed initiatives, encompassing academic staff, administration and services staff, and students in later stages of their courses, with a range of motivations and viewpoints observed, which in turn contrast with those of traditional religious institutions.

### *1.1. Sources of Spiritual Development in Early Adulthood*

Although no systematic studies or literature reviews have been conducted on this topic, some research has suggested (though at times marginally) sources of promoting spiritual development in university students.

During this stage of the life cycle, a large number of courses and complementary activities are offered by the universities aimed at promoting spiritual inquiry and awakening through (1) activities included in the academic degree programs, at times focusing on religion and in other cases of an interdisciplinary nature, (2) innovative educational activities and extracurricular courses focused on spiritual exploration and existential questions, and (3) theological, philosophical or religious education activities (Lindholm et al. 2011). Reflective writing, contemplative practices, writing articles, or complementary activities are used by the teaching staff to facilitate spiritual development and stimulate spiritual search. These include, among others, weeks and days focusing on a single subject, mentoring programs, immersion and service, vocational guidance, dialogues on spirituality and religion, meditation and reflection, and training in leadership skills. The study by Lindholm et al. also reveals initiatives at campus level such as the creation of organizational units, the development of strategic plans to achieve spiritual goals, the creation of lifelong learning communities, the development of specific programs for first-year students, or the creation of physical spaces suitable for reflection, discernment, or simply for sitting in quietly.

Furthermore, the students themselves report that an important part of their religious experiences and discussions takes place with friends, in nature, or while playing sport, listening to music, meditating, or looking at art (Higher Education Research Institute 2006), thereby expressing their spirituality in very different ways (Montgomery-Goodnough and Gallagher 2007). In addition, the spiritual growth of this population has been attributed to their participation in volunteering

and service activities (Andolina et al. 2006; Corporation for National & Community Service 2006; Lindholm et al. 2011) and service-learning (Winings 1999). It has also been linked to institutional features such as the existence of university pastoral care services on campus (Winings 1999), the values of the institution and its curricula (McCrohan and Bernt 2004), as well as the involvement of the teaching staff and the institution itself (Mulder et al. 2006).

In the context of a mainly Judeo-Christian religious tradition, the following were mentioned by Spanish university student believers who do not participate in institutional religious practices, as sources of fostering and nurturing their faith: participation in expressions of popular religiosity in the form of processions and pilgrimages as well as devotion to a representation of Christ, Mary, or a Catholic saint, personal prayer, reading religious or theological education material, or attendance on such courses. Also mentioned were the practice of charity through donations, economic contribution to an NGO, the donation of used clothes or non-perishable food, helping homeless people, and child sponsorship (García 2013).

### 1.2. The Present Study

Although many activities and programs are offered to promote the spiritual development of young adult university students, and numerous academic, extracurricular, administrative, and economic initiatives have been proposed to facilitate such development (see for example Astin et al. 2010), it is not known which sources of spiritual growth are used by the university student and how they may vary depending on age and gender. Although this line of research has provided important advances about the issues indicated above in the American and Anglo-Saxon contexts, the development of the knowledge of the religious and spiritual development of the European university student is still in its infancy, particularly in the topics of the sources and ways of spiritual growth and the practical applications of the knowledge gained from such research.

Beyond the novelty of this study in Mediterranean countries, particularly with Spanish people, and its contribution to knowledge of religious and spiritual development, research into the abovementioned aspects as well as into the interrelationship between sources of spiritual growth could improve the planning and design processes and provision of programs and activities for spiritual growth in emerging adults.

Although no previous studies have been conducted on this subject, we expect (H1) non-religious sources (i.e., linked to nature, culture, reflection) to be more used than religious sources, and (H2) we expect to observe an interrelationship between the preference for different types of sources in general, and to a lesser extent between the religious and non-religious sources. Justification for this hypothesis lies in the lesser importance of religion in contemporary society, particularly in Spain (e.g., González-Anleo and González 2010), and greater contact with transcendence through non-religious sources (Clarke 2011; Davie 2007; García 2013).

Although previous studies have showed a relationship between age and religiosity (e.g., Noor 2008; Wink and Dillon 2002) as well as the tendency of women to show a greater religiousness (McFadden 2005; Wink and Dillon 2002), we expect (H3) a negative relationship between age and the use of religious means given the average age of the sample and the tendency of emerging adults to underplay the role of religion in their life (González-Anleo and González 2010) compared to older people. One final hypothesis, which is also upheld by these considerations, indicates (H4) a higher use for religious and non-religious sources of spiritual development in women.

## 2. Method

### 2.1. Participants

A total of 309 undergraduate university students from the Faculty of Education Sciences (Degree in Primary Education and Pedagogy) of the University of Granada (Spain), with a mean age of 21.40 years (SD = 2.12, range 18–25) and a distribution of 80% women and 20% men, participated in

the study. This proportion was equivalent to the gender ratio of students in Spain who typically take university courses relating to education (see [Puy 2016](#)), the field to which all the students belonged.

## 2.2. Procedure

University students enrolled in subjects from the Faculty of Education Sciences of the University of Granada (Spain) were invited to participate in the study by e-mail with a URL link to the survey. This e-mail was sent by different professors of the Degrees in Primary Education and Pedagogy that had no problem with helping in this way to collect data. Students completed an online questionnaire on a voluntary basis. This way of proceeding ensured that all questionnaires were fully completed and facilitated the participation of university students with a broader range age. Anonymity was guaranteed, and no names or other identifying information was asked. Participants signed an informed consent form before completing the questionnaires. The study setting and research process complied with the local and national ethical instructions for research.

## 2.3. Instruments

### 2.3.1. Sources of Spiritual Development

The sources of spiritual development were measured by an ad hoc questionnaire based on the information gathered from three ways. First, the review of empirical literature where sources of spiritual development were measured in only peer-reviewed journals. Using the words “spiritual development” and “spiritual growth” as keywords in the PsycInfo database, a total of 29 articles were obtained. This process enabled the authors to find out what areas to take into account to develop a new instrument given that any test that meets our objectives was found. Second, according to [Davie \(2007\)](#) and [Clarke \(2011\)](#) considerations on late-modern spirituality, a better overview of the content and orientations of contemporary and religious and non-religious spirituality was achieved. Third, previous responses from a sample of Spanish university students to open questions about used sources of spiritual growth ([Muñoz-García 2011](#)) was also considered as a significant source of information that extended the conclusions obtained from the reviewed literature previously referred to with information from a cultural context more similar to the one presented in this study. After this process, a pool of 88 items was generated based on the relevant areas identified (i.e., different types of appropriate behavior, religion, nature and sexuality, and sources related with cognition, reflection, and culture). Although some of the sources (e.g., [Muñoz-García 2011](#)) mentioned sources related to sexuality, and sexuality is considered an integrated dimension of spirituality in sexual theology (see [Horn et al. 2005](#)), sources related to sexuality were not taken into account because of the lack of sufficient theoretical support.

Following the guidelines of [Millman and Greene \(1989\)](#), which indicate that the expert is defined by the purpose of the instrument, seven first-year undergraduate university students acted as external judges to determine the validity of the tool. Items were assessed by each “expert” in terms of communicability (drafting, clarity, and consistency), and pertinence ([Millman and Greene 1989](#)). To do this, an evaluation form was developed to help the experts assess each item. Each reviewer independently rated the relevance of each item to the conceptual framework using a 4-point Likert scale (1 = not relevant to 4 = very relevant). The content validity index (CVI, [Lynn 1996](#)) was used as criteria to estimate the validity of the items. According to [Lynn \(1996\)](#), items with a CVI rating lower than three or four indicates the content is not valid. In this case, items which did not meet the 0.85 (6/7) level required were dropped ([DeVon et al. 2007](#)). As a result of the evaluation, the clarity of writing and instructions were improved. The pilot questionnaire resulting from this process contained 75 items. This was then given to a sample of undergraduate students enrolled in primary education or pedagogical studies ( $n = 314$ ) which completed the questionnaire voluntarily.

Construct validity was determined using an exploratory factor analysis. The KMO (Kaiser-Meyer-Olkin) index of sample adequacy was 0.86, suggesting sufficient adequacy of the factor analysis

(Kaiser 1974). A principal component analysis with varimax rotation was also performed. Varimax rotation was selected to simplify the interpretation of factors and maximize statistical independence (Tabachnick and Fidell 2001). The items with factor loadings of more than 0.50 in a factor (with at least 3 items) and less than 0.40 in others (Ferguson and Cox 1993), and communalities greater than 0.50 (Hair et al. 2010) were selected. In contrast, those belonging to factors with less than 3 associated items (Fabrigar et al. 1999) were dropped. In addition, Cronbach's alpha coefficient and corrected item-total correlations were used to assess internal consistency. The reliability of each sub-scale was studied, evaluating the behavior of Cronbach's alpha for a measurement if a single item were removed. The items whose elimination led to increases in Cronbach's Alpha were dropped, and those whose elimination resulted in decreased alpha values were maintained. In addition, average inter-item and corrected item-scale correlations were satisfactory, with values higher than 0.15 (Clark and Watson 1995), and corrected item-scale correlation greater than or equal to 0.40 (Ladhari 2010), respectively.

This process yielded a 17-item questionnaire with five factors and a 10-point Likert-type response format (range 1–10), which explained 82.58% of the variance. In the instructions, respondents were asked to assign a score of between 1 and 10 to each of the items, assessing the degree to which they considered that each one of the sources indicated could work for them as a source of spiritual growth, or to develop their spiritual dimension. The first factor (four items) grouped sources based on virtuous behavior (e.g., respecting others) (see Table 1). This factor explained 20.69% of the variance and showed a reliability measured by Cronbach's alpha coefficient of 0.95. The second factor (four items), referring to religious means (e.g., praying), explained 19.03% of the variance and showed an alpha value of 0.90. The third factor (three items), sources linked to nature (e.g., watching a sunset), explained 15.17% of the variance and showed a Cronbach's alpha reliability of 0.88. The fourth factor, cognitive-reflective sources (e.g., asking oneself about the meaning of life), explained 14.02% of the variance and showed a reliability of 0.85. The fifth factor, literary-cultural means (e.g., reading poetry), explained 13.66% of the variance and showed a Cronbach's alpha reliability of 0.82. The Cronbach's Alpha score for the total scale was 0.88. Table 1 shows factor loadings results from exploratory factor analysis.

**Table 1.** Factor loadings for the five-factor structure in the Exploratory Factor Analysis.

	Factors				
	1	2	3	4	5
Avoiding evil and hypocrisy toward others	0.903				
Respecting others	0.880				
Avoiding having bad feelings towards others	0.874				
Forgiving	0.850				
To attend mass (or another rite of other religion)		0.907			
Pray		0.923			
Talking to god (as defined by some religions)		0.895			
Participating in catechetical groups (young people, adults, families, etc.)		0.843			
To watch the sun go down			0.841		
To do activities which enable a strait contact with nature (camping, field trip, hike ... )			0.792		
Contemplating particularly beautiful landscapes			0.795		
Asking yourself about the meaning of your life				0.872	
Reflecting on oneself and the reason for behaving in a certain way				0.832	
Choose freely a set of values that guides my life				0.790	
Read poetry					0.854
Play a role in live theater					0.774
Reading narratives					0.775

Note: 1 = Sources based on virtuous behavior, 2 = Religious sources, 3 = Linked to nature sources, 4 = Cognitive-Reflective sources, 5 = Literary-cultural sources.

Structural equation modeling (SEM) was used to confirm the structure. The indices of model fit for this scale were CFI = 0.96, TLI = 0.95, and RMSEA = 0.07. The Comparative Fit Index (CFI) and

Tucker-Lewis Index (TLI) were above the threshold for a good fit (Hu and Bentler 1999), and RMSEA was in the stringent upper limit of 0.07 (Steiger 2007). Table 2 shows factor loadings results from confirmatory factor analysis.

**Table 2.** Factor loadings results of the five-factor structure from confirmatory factor analysis.

	Factors				
	1	2	3	4	5
Avoiding evil and hypocrisy toward others	0.901				
Respecting others	0.877				
Avoiding having bad feelings towards others	0.872				
Forgiving	0.861				
To attend mass (or another rite of other religion)		0.909			
Pray		0.895			
Talking to god (as defined by some religions)		0.859			
Participating in catechetical groups (young people, adults, families, etc.)		0.831			
To watch the sun go down			0.855		
To do activities which enable a strait contact with nature (camping, field trip, hike . . . )			0.821		
Contemplating particularly beautiful landscapes			0.812		
Asking yourself about the meaning of your life				0.856	
Reflecting on oneself and the reason for behaving in a certain way				0.813	
Choose freely a set of values that guides my life				0.813	
Read poetry					0.825
Play a role in live theater					0.825
Reading narratives					0.747

Note: 1 = Sources based on virtuous behavior, 2 = Religious sources, 3 = Linked to nature sources, 4 = Cognitive-Reflective sources, 5 = Literary-cultural sources.

Two instruments were used in order to test the scale's content and face validity: scales of religious orientation and expressions of spirituality (see the description in the next sub-section).

The criterion validity was satisfactory, with significant associations between quest religious orientation and religious ( $r = 0.35$ ;  $p < 0.001$ ), linked to nature ( $r = 0.19$ ;  $p < 0.05$ ), cognitive-reflective ( $r = 0.21$ ;  $p < 0.05$ ), and cultural ( $r = 0.20$ ;  $p < 0.05$ ) sources. In addition, intrinsic ( $r = 0.75$ ;  $p < 0.001$ ) and extrinsic ( $r = 0.58$ ;  $p < 0.001$ ) religiosity were related with religious sources. Cognitive orientation toward spirituality was positively related with sources based on virtues ( $r = 0.27$ ;  $p < 0.05$ ), religion ( $r = 0.38$ ;  $p < 0.001$ ), and cognitive-reflective ( $r = 0.45$ ;  $p < 0.001$ ) sources. Religiosity was related with religious sources ( $r = 0.83$ ;  $p < 0.001$ ).

### 2.3.2. Religious Orientation

The Ramírez's (2006) Spanish adaptation of the Religious Orientation Scale (ROS; Batson and Ventis 1982) was used to identify intrinsic, extrinsic, and quest religious orientations. This is a 27-item scale Likert-type with nine points (1 = Strongly disagree, 9 = Strongly agree). People intrinsically motivated is engaged in religion for religion's sake, but people extrinsically motivated is engaged in religion for the sake of other objectives (Francis et al. 2016). Quest orientation "embraces characteristics of complexity, doubt, tentativeness, and honesty in facing existential questions" (Francis et al. 2016, p. 58).

### 2.3.3. Expressions of Spirituality

The Muñoz-García (2013) Spanish adaptation of the short version of the Expression of Spirituality Inventory (MacDonald 2000) was used. It measured five expressions of spirituality although only two of them were used to study the external validity of the sources of spiritual development questionnaire: Cognitive Orientation towards Spirituality and Religiosity. Each scale consists of 6 items with a 5-point Likert-type answer format from 0 (Totally disagree) to 4 (Totally agree). Cognitive orientation toward spirituality is a cognitive-perceptual expression that includes attitudes, perceptions, and beliefs

regarding the significance and nature of spirituality as well as its importance for personal functioning (MacDonald 2000). Religiosity is related with the expression of spirituality through religious means related to Judeo-Christian forms of religious practice and belief (MacDonald 2000). The final Spanish version of the questionnaire is shown in Appendix A.

#### 2.4. Data Preparation and Analysis

Descriptive statistical techniques were used to identify the differential use of sources of spiritual growth, and to characterize the sample from the dimensions of religion and spirituality measured. Pearson's product-moment correlation statistics were used to study the linear association between the different types of sources of spiritual growth, and unifactorial variance analysis (adjust method: Bonferroni correction) to study sex differences after testing for the assumption of homogeneity of variances.

### 3. Results

This section is structured as follows. In Section 3.1, we describe what the preference for sources of spiritual growth is for this sample of Spanish university students. Section 3.2 shows how these sources are interrelated and investigates whether the preference for one source of spiritual development over another also relates with the preference for other sources conceptually similar. Finally, the Section 3.3 will provide information on the effect of age and gender differences on the preference for sources of spiritual growth.

#### 3.1. Preference for Sources of Spiritual Growth

The sources of spiritual growth used by university students (in descending order of use) were those based on the practice of virtuous behavior, followed by cognitive-reflective sources, those based on nature, culture, and lastly those of a religious nature (see Table 3). It is observed that the scores extended throughout the entire potential range, being observed variability within each variable. In addition, the average scores observed were always higher than the intermediate value of the range of each variable.

**Table 3.** Descriptive statistics of sources of spiritual growth, sex differences, and Cronbach's Alpha of each scale.

	Descriptive Statistics ( <i>n</i> = 426)									
	Men		Women		<i>F</i>	Total		Range		$\alpha$
	<i>M</i> <sup>a</sup>	<i>SD</i>	<i>M</i> <sup>a</sup>	<i>SD</i>		<i>M</i> <sup>a</sup>	<i>SD</i>	Potential	Actual	
RELIG	12.64(3.16)	11.56	12.12(3.03)	10.57	0.040	12.22(3.05)	10.29	4–40	4–40	0.93
CUL	14.23(4.74)	7.16	15.32(5.11)	6.93	2.365	15.10(5.03)	6.80	3–30	3–30	0.82
NAT	19.28(6.43)	6.70	20.83(6.94)	6.03	3.684	20.52(6.84)	5.91	3–30	3–30	0.86
COGRE	20.82(6.94)	6.14	23.25(7.75)	5.21	10.657 ***	22.77(7.59)	5.43	3–30	3–30	0.84
VIR	29.51(7.38)	7.86	32.97(8.24)	6.45	21.132 ***	32.29(8.07)	6.79	4–40	4–40	0.92

Note. RELIG = Religious sources, CUL = Cultural Sources, NAT = Sources based on nature, COGRE = Cognitive-reflective sources, VIR = Sources based on virtues. <sup>a</sup> Values in parentheses correspond to comparative scores (average divided by the number of items). \*\*\* *p* < 0.001.

#### 3.2. Interrelationships between Sources of Spiritual Growth

The use of sources of spiritual development was positively interrelated with the exception of those of a religious character (Table 4). The use of sources based on virtues, nature, cultural, and cognitive-reflective sources was positively related to each other. However, the use of religious sources was only (positively) associated with the use of cognitive-reflective sources.

**Table 4.** Pearson’s product-moment correlation statistics between the use of sources of spiritual growth.

	1	2	3	4	5
1. Religious sources	-	0.09	−0.08	0.01	0.12 *
2. Sources based on virtues		-	0.43 **	0.31 **	0.50 **
3. Sources based on nature			-	0.49 **	0.39 **
4. Cultural sources				-	0.35 **
5. Cognitive-reflective sources					-

\*  $p < 0.05$ , \*\*  $p < 0.001$ .

### 3.3. Age, Gender Differences, and Preference for Sources of Spiritual Growth

Age was negatively related to the use of religious sources ( $r(309) = -0.17$ ,  $p < 0.05$ ) and positively to cultural sources ( $r(309) = 0.18$ ,  $p < 0.05$ ). The use of sources based on virtues, nature, and cognitive-reflective sources of spiritual growth were shown not to be associated with age.

With regard to gender differences, the women showed a greater use of sources based on virtues ( $t(307) = -3.64$ ,  $p < 0.001$ , 95% CI  $[-5.33, -1.59]$ ,  $d = 0.50$ ) and cognitive-reflective sources ( $t(82.51) = -2.88$ ,  $p < 0.05$ , 95% CI  $[-4.11, -0.75]$ ,  $d = 0.43$ ) than the men. No gender differences were observed for the rest of the sources, showing that young men and women has a similar preference for religious and those based on nature sources.

## 4. Discussion

Although in line with the relevance of practices and beliefs in today’s society, where tradition is little-appreciated (Davie 2007; García 2013), the results of our study showed a particular relevance for non-religious sources of spiritual growth (H1) as well as the presence of spirituality expressed in non-traditional ways in accordance with contemporary society (Clarke 2011; Davie 2007). This tendency to prefer non-religious over religious sources (thereby supporting our H2), as well as the aforementioned low individual and social consideration of tradition, are linked with particular social movements and trends (Clarke 2011; Davie 2007). These results corresponded to the sociological characterization of the young adult majority in our sample, considered the most skeptical toward religion as well as the most credulous with respect to horoscopes, witches and “spirits” (González-Anleo and González 2010). This is perceived as a consequence of a process of disinterest in religion (Pérez 2012) and of the religious evolution of Spanish society, moving from being a Catholic country in the religious sense, to one in the cultural sense (Pérez 2012). This process, that has not yet been consolidated (González-Anleo and González 2010; Pérez 2012), has involved a decline in Spanish religiousness and a “migration” of those dissatisfied with the institution of the Catholic Church toward the religions of indifference, humanist religions and spiritualities of life (González-Anleo 2008). These include contents such as the worship of the body, sexuality, ecology, or the use of techniques such as transcendental meditation, and in which the definition of the sacred is adapted to the life circumstances of each human being (González-Anleo 2008). This sociological, cultural and religious context is consistent with the sources for spiritual growth indicated as being used by young adults, and it also helps us understand the relationships observed between them, age, and gender.

In relation to the first aspect, the importance of these new contexts of life experience regarding spirituality and their associated expressions help to understand the relevance of cultural sources (e.g., literature and theater), sources based on nature, and cognitive-reflective sources. They all share their particular significance for people interested in spirituality and its cognitive-perceptual dimensions. In the terms of Houtman and Mascini (2002), these expressions of spirituality would lack the horizontal dimension of spirituality (toward human relationships), although they would maintain their transcendent nature through their vertical dimension (of man toward divinity).

Also, the indicated sociocultural and religious contexts of the university students in our study help us understand the negative relationship between age and preference for religious sources previously

noted in hypothesis 3. Although this relationship between age and low use of religious sources is consistent with the association established in previous studies on age and religion (e.g., [Noor 2008](#); [Wink and Dillon 2002](#)), the negatively relationship observed, together with the greater preference for non-religious sources characteristic of non-traditional spiritual guidance, suggests an increased influence on young adults, not so much in terms of age but rather sociocultural aspects. In particular, there is dissatisfaction with the Catholic Church as an institution, and there has been a move away from traditional religiosity to humanistic religions, spiritualities of life, and religious indifference, as mentioned above (see [González-Anleo 2008](#)). In addition, the fact of having observed this negative association between age and the use of religious sources in the limited age range of the participants (i.e., 18–25) may be also related with developmental processes. Particularly, the personal identity development in adolescence and emerging adulthood ([Schwartz et al. 2013](#)).

With regard to gender differences (H4), the absence of differences between men and women in the assessment of religious sources did not correspond to the tendency observed in previous research, which indicates greater religiousness in women ([McFadden 2005](#); [Wink and Dillon 2002](#)). On the contrary, the fact that this variable should be linked to the use of religious sources of spiritual growth could indicate not so much the intrinsic interest of women in religion as the satisfaction of a need (e.g., responding to their low existential well-being and their appreciation of tradition). In fact, the traditional hypotheses for explaining this greater female religiosity, based on women having more opportunity for religious practice, differences in gender-role socialization, or structural location ([Loewenthal et al. 2002](#)), would be difficult to verify in the current Spanish historical and sociocultural context, which is more secularized and egalitarian ([González-Anleo 2008](#); [González-Anleo and González 2010](#); [Pérez 2012](#)). However, neither the approach used in this study nor its experimental design make it possible to exclude the idea that the greater degree of religiosity attributed to women can be achieved through non-religious sources of spiritual growth. On the other hand, the higher use of cognitive-reflective sources in women is coherent with previous studies that found that women are more analytical (e.g., [Allinson and Hayes 1996](#); [Sadler-Smith 1999](#)) and strategic ([Nguyen 2016](#)) than men, tend to be more focused on planning and organizing their work, and also express greater concern about managing their academic workload ([Backhaus and Liff 2007](#)). In addition, the higher use of sources based on virtues is in line with previous research affirming that women are more focused on being involved in dealing with immediate human situations in a personal way and experiences ([McCabe 2014](#)).

Taken as a whole, the results of this study also indicate that initiatives aimed at improving the spiritual development of university students in Education Studies may be better received if their aims and contents are geared toward facilitating personal development by cultivating and appreciating virtuous behavior, by the use of strategies based on reflection and personal discovery, and by caring for the environment, as well as through the arts and humanities. The relationships observed between the consideration given to traditional religious sources of spiritual growth and other sources suggest that traditional religious sources are only introduced when individuals hold religion as an important variable, and state their interest in it. The positive relationships observed with the age variable suggest that this should be taken into account as student age increases. These observations do not differ from the data on activities gathered by [Lindholm et al. \(2011\)](#), although they do have the added value of showing the suitability of the means indicated for students of Education Studies in contrast with students from other fields of knowledge. They may have a different preference for sources of spiritual growth (given, for example, the differences in religiosity observed between students of different branches of knowledge, e.g., ([Scheitle 2011](#))). On the other hand, the fact that the participants were university students implies that we should be careful with the generalization of the study results to subjects of a similar age range outside of the higher education institutions. However, from another perspective, it can be understood that this study has analyzed the particular contribution of higher education to spiritual development and growth, as a specific ecological context with distinctive characteristics. Nor can we ignore the idea that students on other degree courses could assess things

differently, particularly as other studies on religiosity have highlighted differences between students from different disciplines (e.g., Scheitle 2011).

Future developments of this research should consider the inclusion of a greater number of sources and the possibility of using open-ended questions to ask directly about sources used for spiritual growth and development. In addition, knowledge on the aspects that account for spiritual growth in higher education in countries such as Spain, where traditionally religious people coexist with their more secularized peers, could be enriched by contrasting means for spiritual growth with religious and existential doubt (e.g., Patrick and Henrie 2015), spiritual support (e.g., Krause et al. 2013), different lifestyles (e.g., Aqtash and Servellen 2013; Liebergall-Wischnitzer et al. 2016), important experiences that were not necessarily traumatic or negative (e.g., De Castella and Simmonds 2013; Chopko et al. 2016; Kim et al. 2016), and the role of digital devices (e.g., Richardson and Pardun 2015). These aspects have been shown to have a relationship with spiritual growth and their study may contribute to further enriching the little knowledge we have on the factors that could impact the effectiveness of different types of interventions aimed at facilitating spiritual growth. Likewise, the evaluations made in this discussion regarding the absence of a relationship between age and certain preferences also indicate the importance of comparing these results with others obtained from a group of older people (students and non-students of the same age and older). This would help us understand if there are any possible differences between these and young adults in their used sources for nurturing spirituality, as well as the possibility that, given the fact this sector of the Spanish population is still largely identified with traditional religiosity (CIS 2017), this stage of life exhibits a more significant relationship between age and religiosity and a greater preference for traditional sources of religious and spiritual growth.

Moreover, also with the aim of improving interventions into spiritual development, it would be useful to understand, as far as possible, the explanatory factors—as well as moderators and mediators—for the preference for one or another form of means, particularly personality dimensions, values, presence or search for meaning, measures of religious orientation, importance of spirituality, cognitive vs. experiential approach to religion or spirituality, the influence of traditional (religious) vs contemporary (e.g., paranormal) beliefs, etc.

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## Appendix A. Spanish Version of the Means of Spiritual Growth Questionnaire

### Cuestionario de Medios de Crecimiento Espiritual

Asigne a cada uno de los siguientes aspectos una puntuación entre 0 y 10, valorando el grado en el que considera que pueden servirle como medio para crecer espiritualmente o desarrollar su dimensión espiritual (señale con una x el valor que corresponda).

1	2	3	4	5	6	7	8	9	10
No me sirve para crecer espiritualmente							Totalmente adecuado para desarrollar mi espiritualidad		

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1 2 3 4 5 6 7 8 9 10

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1. Evitando la maldad y la hipocresía con los demás
  2. Ir a misa (o a otro rito de otra religión)
  3. Contemplar una puesta de sol
  4. Preguntarse por el sentido de la vida
  5. Leer poesía
  6. Respetando a los demás
  7. Rezar
  8. Realizar actividades que permiten un contacto directo con la naturaleza (acampadas, excursiones, senderismo . . . )
  9. Reflexionar uno mismo sobre cómo es y por qué hace las cosas
  10. Representar un papel en una obra de teatro
  11. Evitando tener malos sentimientos hacia los demás
  12. Hablar con Dios (según este es definido por alguna religión)
  13. Contemplar paisajes especialmente bellos
  14. Optar libre y personalmente por un conjunto de valores que guíen mi vida
  15. Leer narrativa
  16. Perdonando
  17. Participando en grupos de catequesis (jóvenes, adultos, familias, etc.)
- 

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