



The Relationship of Life-Changing Spiritual Experiences to Current Religious/Spiritual Attitudes and Practices: A Pilot Study

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Abstract

Positive life changes may be associated with spiritual/religious sources. This pilot study tested religiousness/spirituality in adults ($N=77$; 21% men; $M_{\text{age}}=39.45$, $SD=11.97$ years) who answered demographic questions and completed the Brief Multidimensional Measure of Religiousness/Spirituality. Respondents who reported a major life-changing spiritual experience (72.7%) were compared to those who did not (27.3%). The former scored higher ($p<.05$) on all measures and had a higher proportion of religious ($p=.04$) and spiritual ($p<.001$) identity. At the same time, no differences in age, gender, education, or urban vs. rural location emerged. Among those who had experienced a significant life change, 42.9% had such experiences when they were 18 years or younger. Most (83.4%) were committed spiritually and attended religious services once or more weekly. The age at which the life-changing experience occurred correlated strongly ($r=.70$) with the strengthening of religious/spiritual practices. The results suggest that life-changing spiritual experiences fuel religious/spiritual attitudes and behaviors and that their impact may be more profound if experienced at a younger age.

Keywords Beliefs · Conditioning · Religion · God · Spirituality

Introduction

Although religion and spirituality are often seen as similar or identical concepts, many scholars view them as different. Accordingly, religiousness involves embracing a belief system connected to God. At the same time, spirituality is more diffuse and subjective, embedding personal values and assumptions learned in many ways that are not necessarily

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but still potentially connected to God (Paul Victor & Treschuk, 2019). As such, religion is a part of spirituality. Such a connection is also supported by empirical evidence. For example, one study revealed that when spirituality was entered first in a regression analysis, it accounted for 51% of the variance in the quality of life of cancer patients. However, adding religion to the equation did not yield a significant increase. In contrast, adding religion first accounted for only 13% of the variance, but adding spirituality increased the variance in the quality of life by 38%, totaling 51% (Rippentrop et al., 2006).

Subjectively perceived significant life-changing experiences affect spiritual attitudes and practices (Gutierrez et al., 2018; King et al., 2001). Several theories could account for such a connection, including the evaluative conditioning theory (De Houwer, 2007) and the expectancy theory (Blackwell, 2007). Nevertheless, only a few studies have looked at this possible connection. One study examining 180 university students found that different life changes were inversely related to spirituality (Muller & Dennis, 2007). However, the authors assessed life changes with the Social Readjustment Rating Scale (Holmes & Rahe, 1967), which weighs a fixed number of reported life changes to obtain a stress score. Its items do not identify a *perceived life-changing* experience, nor are they connected to spiritual/religious interpretations. Perceived life-changing experiences can be positive or negative. They are conceptualized here as major subjectively perceived life changes requiring adaptation to change and reconceptualization of living values (Filipp & Aymanns, 2009) and reflecting the person's belief that their life has taken a different course after a specific spiritual experience.

A study testing people with alcohol problems found that life-changing spiritual or religious experiences were positively related to religiousness and spirituality (Robinson et al., 2003). In a simplified form, this association matches behaviorist theories, including the law of effect (Thorndike, 1927). In a large American study, life-changing religious/spiritual experiences were reported by 42.7% of participants (Gutierrez et al., 2018). Of course, a life-changing event is subjective, and what matters is that the affected person perceives it as such. Indeed, such a perception reflects the personal importance of the experience. Significant changes in one's life affect spirituality/religiousness and several other life domains, such as leisure time, physical activity (Engberg et al., 2012), and alcohol consumption (Just-Østergaard et al., 2017). Accordingly, significant life-changing experiences connected to religion and spirituality could positively impact health. Indeed, religious (AbdAleati et al., 2014; Modabber et al., 2019) and spiritual (Chirico, 2016) beliefs are associated with better health. A recent literature review strengthened the empirical results by firmly concluding that "*religion and spirituality do influence health behaviours and well-being*" (Litalien et al., 2021, p. 373, emphasis added).

In this pilot study, partly based on Robinson et al.'s (2003) work, we re-examined the link between having a perceived life-changing experience and spirituality/religiousness in a sample of Hungarian volunteers. We hypothesized that people reporting having experienced a spiritually related significant life change would have higher spiritual and/or religious identity than those without such an experience. We also presumed that the former group would score higher on measures of daily spiritual experience, attributed meaning (of life), forgiveness, religious practices, and religious/spiritual coping. These measures represent the first five subscales of the Brief Multidimensional Measure of Religiousness/Spirituality Scale (BMMRS; Fetzer Institute & National Institute on Aging Working Group, 2003). They are considered independent but correlated dimensions.

Moreover, we aimed to test the relationship between perceived significant life-changing experiences and spiritual identity. Additionally, we planned to examine whether this relationship is stronger than the relationship between perceived life-changing experiences and

religiosity. Based on the results of Rippentrop et al. (2006), we posited that the relationship would be stronger to spiritual than to religious identity, aligning with the theoretical notion that religiousness is part of spirituality and the latter includes the former. Finally, we wished to look at the age when the significant perceived life-changing experience occurred and whether there is a connection to current spiritual/religious practices. We presumed that life-changing spiritual experiences at a younger age would significantly impact current religious attitudes and practices.

Materials and methods

Participants

The Research Ethics Board of the Faculty of Education and Psychology at ELTE Eötvös Loránd University evaluated the research proposal and granted ethical clearance for the study (permission no. 2021/548). Furthermore, the board confirmed that the work conforms to the ethical guidelines for internet-mediated research of the British Psychological Society (2021) and the research principles with human participants established in the Helsinki Declaration (World Medical Association, 2013). Finally, all participants read and agreed to an informed consent form before completing the anonymous online questions.

Although we received 106 responses, after screening for the thoroughness of the answers and the realistic time required to complete the survey, we ended up with 77 responses from 16 men and 61 women. The mean age of the participants was 39.45 ($SD = \pm 11.97$), ranging from 18 to 66 years. Among those disclosing their education level ($n = 56$) and where they lived ($n = 56$), two had completed elementary school, 20 had completed high school, and 34 possessed a college or university degree. Most ($n = 26$) lived in a city, 8 in the capital city, and 22 in smaller rural areas. The sample disclosing their religious affiliation ($n = 56$) was of Christian faith (Catholic = 45, Protestants = 11), while 21 did not report their religious affiliation. Most respondents reported having had a major life-changing spiritual experience ($n = 56$; 72.7%); less than a third of the sample did not ($n = 21$; 27.3%). The perception of life-changing spiritual experiences correlated with religious affiliation is reported in Table 1.

Materials

We used the psychometrically validated Hungarian version (Farkas et al., 2014) of the BMMRS (Fetzer Institute & National Institute on Aging Working Group, 2003; Masters, 2020) to measure five domains of religiousness and spirituality: (1) daily spiritual experience (Cronbach's alpha [α] = .90), (2) meaning ($\alpha = .57$), (3) forgiveness ($\alpha = .72$), (4) religious practices ($\alpha = .78$), and (5) religious/spiritual coping ($\alpha = .73$). In the current study, these values were .92, .77, .72, .77, and .71, respectively. Sample items from each domain, in the order listed above, are (1) "I feel God's presence," (2) "I feel a mission or a calling in my life," (3) "I know that God has forgiven me," (4) "How often do you meditate in the context of your religious or spiritual values?" and (5) "I look to God for strength." In our sample, the five domains correlated at a statistically significantly level ($p < .001$), ranging from $r = .45$ to $r = .69$.

Our demographic questions assessed the following measures: age, gender, education level, area of residence (the latter two were optional questions), whether the participant had

Table 1 Perceived significant life-changing spiritual experiences in the context of religious affiliation

Religious affiliation	Had a life-changing experience	Did not have a life-changing experience	Total
Catholic	34	11	45
Protestant	8	3	11
None specified	14	7	21
Total	56	21	77

had a (perceived) life-changing spiritual experience (i.e., “Did you ever have a spiritual/religious experience that changed your life in any way?”), the age at which such an experience had occurred, whether the participant had experienced a strengthening in spiritual or religious beliefs, and the period when such a change occurred. We also assessed current religious practices, the estimated average weekly time spent on religious/spiritual activities, and the extent of identification with spirituality and religion.

Procedure

We posted requests on Facebook for participation in a study examining religious/spiritual beliefs and practices. Since the initial number of responses was low, we also used the snowball method to recruit more participants. Participation criteria were age 18 or above and good mental and physical health based on subjective disclosure. Data collection lasted for five months (from winter 2021 to spring 2022) because, despite the survey being anonymous and our posting repeated notices on Facebook, only a few people replied to the call for participation. Those who volunteered for the study were able to access the questions on the Qualtrics research platform. Following their consent to participate, confirmed by selecting the “Yes” button (after reading the consent form on the first page of the research website), the participants completed the demographic questions and the five subscales of the BMMRS.

Data analyses

Data were recorded in and analyzed with the Statistical Package for Social Sciences (SPSS, version 28, IBM Corporation, 2021). To examine the hypothesized differences between individuals who had had a life-changing spiritual experience and those who had not, in five measures (subscales) of the BMMRS we employed a bootstrapped (1,000 stratified bootstrapped samples) multivariate analysis of covariance (MANCOVA) with gender as covariate.

Unfortunately, we were not able to obtain enough participants for this study. The required sample size for the MANCOVA, based on an a priori sample size calculation with G*Power software (Faul et al., 2009), was 324. To partially address this problem, we calculated the a posteriori achieved power ($1-\beta$) using the post hoc feature of the same software.

We used a Mann–Whitney test to compare the groups’ estimated hours spent per week on religious or spiritual activities. Further, we calculated Pearson’s chi-squared (χ^2) tests for examining categorical data. We also performed bivariate correlations to determine whether reported life-changing experiences correlated with spiritual and religious identity. Subsequently, we tested the statistical difference in the strength of these relationships

(*r*) employing Fisher’s *r*-to-*z* transformation. Finally, we also determined the relationship between the age when a perceived significant life change occurred and the period when a strengthening in spirituality/religiousness occurred.

Results

Life-changing spiritual experiences

There were no statistically significant differences in reporting a major life-changing spiritual experience between those who disclosed their religious affiliation (75%) and those who did not (66.7%; chi-squared (χ^2) [1]=0.535, *p* > .05; see also Table 1). The prevalence of reporting a significant life-changing experience was 72.3% (56/77) in the current sample.

The assumption in the MANCOVA that the observed covariance matrices of the dependent variables are equal across groups was met (Box’s *M*=24.246, *p* = .113). Further, the assumption that the error variance of the dependent measures is equal across the two groups was also met, as indicated by nonsignificant Levene’s tests of equality of error variances (*p* > .05). The MANCOVA yielded a statistically significant multivariate effect, exposing overall differences between those who reported a major life-changing spiritual/religious experience and those who did not (Pillai’s trace = .262, *F* (5, 70)=4.96, *p* < .001 effect size (partial η_p^2) = .262). The power (1 – β) achieved in this test, based on G*Power software (Faul et al., 2009) results, was 0.99. Gender was not a statistically significant covariate (Pillai’s trace = .109, *F*(5, 70)= 1.71, *p* = .143 η_p^2 = .109). All five dependent measures differed at a statistically significant level between the groups based on the univariate tests (see Table 2).

Next, we compared the estimated hours per week spent on religious/spiritual practices between those who had had a life-changing spiritual experience (group 1) and those who had not (group 2). This test was performed with the non-parametric Mann–Whitney U test because the assumption of normal distribution was violated in the data. The two groups differed from each other at a statistically significantly level (*Z* = –2.26, *p* = .024; mean rank = 42.49 for group 1 and mean rank = 29.69 for group 2. However, the effect size was small (*r* = –.26).

Table 2 Summary of the univariate tests comparing Brief Multidimensional Measure of Religiousness/Spirituality Scale (BMMRS) between the two groups

Measure	Mean ± SD		<i>F</i>	<i>df</i>	<i>p</i>	Effect size
	Group 1	Group 2				
Daily spiritual experience	2.57 ± 1.02*	3.76 ± 1.09	19.99	1, 74	< .001	.213**
Meaning (of life)	1.63 ± 0.63	2.17 ± 0.58	11.34	1, 74	.001	.133
Forgiveness	1.65 ± 0.45	2.16 ± 0.65	15.05	1, 74	< .001	.169
Religious Practices	3.95 ± 1.76	5.51 ± 1.56	12.09	1, 74	< .001	.140
Religious/Spiritual Coping	2.44 ± 0.49	3.00 ± 0.53	18.20	1, 74	< .001	.197

*A lower number reflects a *higher rating* on the BMMRS; SD=standard deviation; group 1=had a life-changing experience (*n* =56); group 2=did not have a life-changing experience (*n* =21); *F*=univariate test statistic; *df*=degrees of freedom; **partial η_p^2

A Pearson's chi-squared (χ^2) test yielded no statistical difference between men and women who did or did not report a life-changing spiritual/religious experience ($\chi^2[1]=.16$, $p=.688$). Further chi-squared tests revealed that these groups were not different in education level ($\chi^2[3]=4.69$, $p=.196$) or area of residence ($\chi^2[2]=1.01$, $p=.604$). The proportions of those who saw themselves as a highly, moderately, somewhat, or no *spiritual* person, however, differed between respondents who had had a life-changing spiritual experience and those who had not had such an experience ($\chi^2[3]=21.19$, $p<.001$, gamma $[\gamma]=.74$, standard error [SE]=.11, 95% confidence interval [CI]: lower=.53, upper .94). The same categorical measures also differentiated the two groups in terms of those who considered themselves a *religious* person ($\chi^2[3]=8.22$, $p=.042$, $\gamma=.47$, SE=.15, 95% CI: lower=.18, upper .76). The data are presented in Table 3.

Religious and spiritual identity

The correlations between the extent to which the participants identified themselves with religiousness and spirituality and having had a life-changing experience were positive and statistically significant in both cases ($r=.23$, $p=.042$, $r^2=.05$, and $r=.46$, $p<.001$, $r^2=.21$, respectively). To test the statistical difference between these two correlation coefficients, we transformed them into z -scores using Fisher's r -to- z transformation. Subsequently, we employed Steiger's (1980) method to calculate the asymptotic covariance of the estimates, which we used in an asymptotic z -test. The z score approached but did not reach ($z=-1.56$, $p=.059$) the conservative level of statistical significance.

Correlates of early life-changing experiences

Among those who reported a significant life-changing experience, 42.9% had had such experience at age 18 or younger. Compared to those who had had a life-changing experience over the age of 18, most of the former participants reported attending religious services once or more weekly (83.3% vs. 43.8%). However, the difference only approached statistical significance ($\chi^2[5]=10.24$, $p=.069$, $\gamma=.55$, SE=.15, 95% CI: lower=.25, upper .85).

Subsequently, we examined only the group with a life-changing spiritual experience ($n=56$). The mean age at which such an experience had occurred was 24.23 (SD= ± 11.573) years, $M=20.00$ years, ranging from 6 to 58 years. The correlation between the age at which a life-changing spiritual experience occurred and the age at

Table 3 The extent of spiritual and religious identity in those who had experienced a life-changing spiritual experience and those who had not

Measure	Groups	Highly	Moderately	Somewhat	Not at all
To what extent do you consider yourself to be a <i>spiritual</i> person?	Had a life-changing experience	31 (55.4%)	19 (33.9%)	1 (1.8%)	5 (8.9%)
	Did <i>not</i> have a life-changing experience	2 (9.5%)	8 (38.1%)	5 (23.8%)	6 (28.6%)
To what extent do you consider yourself to be a <i>religious</i> person?	Had a life-changing experience	17 (30.3%)	25 (44.6%)	5 (8.9%)	9 (16.1%)
	Did <i>not</i> have a life-changing experience	0 (0%)	13 (61.9%)	3 (14.3%)	5 (23.8%)

which a substantial strengthening in religious/spiritual practice occurred was statistically significant ($r=.70$, $p<.001$, $r^2=.49$). In addition, the correlation between religious and spiritual identity was statistically significant ($r=.34$, $p=.002$, $r^2=.12$).

Discussion

This study tested (1) the prevalence of subjectively perceived life-changing spiritual experiences in a sample of Hungarian adult volunteers; (2) the differences in spiritual/religious attitudes and practices between those who had a significant life-changing spiritual experience and those who did not; (3) the relationship between having a life-changing spiritual experience and spirituality/religiousness and the differences between the two; and (4) the age at which a life-changing experience occurred in connection to current spiritual/religious practices.

Prevalence of perceived life-changing spiritual experiences

In the current sample, the rate of perceived life-changing spiritual experiences was relatively high in that more than two-thirds of the respondents reported having had such an experience. Indeed, this rate exceeds the highest rate we are aware of, which is 54% in people with alcohol problems (Robinson et al., 2003). The figure also exceeds the prevalence rate (43%) reported by Gutierrez et al. (2018) in 970 Americans, an earlier Gallup poll reporting 41% (Gallup, 2003), and another more recent large American study reporting 49%. While the explanation might be related to cultural differences, they also may reflect a biased sample showing interest in spirituality/religiousness. Indeed, the fact that we could only gather 77 valid responses in five months, despite intensive posting and re-posting of the call for volunteers, suggests that mainly spiritually oriented people were interested in participating.

Furthermore, although 27.3% of the respondents did not disclose their religious affiliation, we found no statistically significant difference between those who did and did not report their religion. Thus, it is possible that the latter group also had some spiritual/religious affiliation. Indeed, the two-thirds (66.7%) prevalence rate of life-changing spiritual experiences in this group supports this explanation.

Differences in spirituality/religiousness based on life-changing experiences

Despite the small sample size and significant difference in group sizes, the results yielded statistically significant differences in all dependent measures (Table 2) between those reporting a life-changing spiritual experience and those not claiming to have had such an experience. An a posteriori power analysis showed that the results of this test had sufficient power despite the small sample size. To our knowledge, no studies examined perceived life-changing experiences in connection to daily spiritual experiences, life meaning, forgiveness, religious practices, or religious/spiritual coping. However, regular spiritual experiences were linked to increased life satisfaction, compared to a baseline, in cancer survivors (Rudaz et al., 2019).

Similarly, an earlier study found that people with near-death experiences reported more daily spiritual experiences than those without such an experience (Khanna & Greyson, 2014). Consequently, our findings on this measure align with the results in the literature.

However, the life-changing spiritual experiences cannot be linked to an objective experience (i.e., illness or recovery) in this study. Thus, our findings are limited to nonspecific *perceived* experiences.

Our results agree with earlier research showing that a significant life change could be associated with enhanced life meaning. However, past research established this connection to *specific* life changes such as congestive heart failure (Park et al., 2007) and trauma (Triplett et al., 2012). In contrast, our study looked at *perceived* life-changing experiences associated with spirituality, the objectivity of which cannot be established. There appears to be a discrepancy between actual (objective events) and perceived experiences and spiritual/religious practices (Trevino et al., 2016) in that the perceived are slightly inflated compared to the actual. Overall, the higher meaning observed in the current study in people reporting a significant life-changing experience could be related more to their *spiritual connection* to the life-changing experience rather than to the change (event) itself.

Concerning forgiveness and life changes, our results, again, align with previous research. For example, emotional changes have been linked to spirituality and forgiveness (Levenson et al., 2006). While personally favorable life-changing experiences, acting as a reward, associated with spiritual/religious attitudes can foster the enhancement of spirituality, which might be the case in the current study, forgiveness therapy can also be used in dealing with traumatic life experiences (Song et al., 2020). Despite being considered independent constructs (Fetzer Institute & National Institute on Aging Working Group, 2003), religious practices and spiritual coping, like the other domains of the BMMRS, correlate. They predict the outcomes of major adverse life experiences (Pargament et al., 1990). A positive development has a reinforcing effect, so the differences in BMMRS measures in this study could be partially attributed to a (perceived) favorable life-changing experience in the majority group reporting such changes. The positive nature of the reported life-changing experiences can be deduced from our results that revealed a strong positive correlation between the age at which the life-changing spiritual experience occurred and the age when the substantial strengthening in religious/spiritual practice occurred. Based on the r^2 we obtained, nearly half of the variance (49%) in the latter variable can be accounted for by the former.

Relationship between life-changing experiences and religious/spiritual identity

The results revealed statistically significant positive correlations between the extent to which participants identified themselves with religiousness and spirituality and life-changing experiences. However, the correlation with religiousity was half that obtained with spirituality. Hence, the shared variance was only 5.5% with religious identity and 18.5% with spirituality. These findings underpin the already-known surmise that spirituality is a broader concept than religiousness. However, apart from this explanation, research suggests that nowadays people tend to identify with a broader and more socially fitting spirituality than with a particular religion (Niemelä, 2006).

Our results also agree with the findings of Rippentrop et al. (2006), who reported that spirituality accounted for more than three times the variance in quality of life compared to religion. In this study, spirituality and religiousness were not assessed in terms of quality of life, but their correlation with the perception of life-changing experiences is similar. Moreover, respondents who reported a life-changing experience differed from the others in terms of the extent to which they considered themselves spiritual or religious. Again,

as in the results of the correlation tests, the gamma (γ) was smaller for religious than for spiritual identity.

Life-changing experience under the age of 18

Close to half (43%) of respondents who reported a spirituality-related significant life-changing experience were 18 or under when the perceived experience occurred. These individuals, compared to those who had a significant life-changing experience later in life, reported attending religious services once or more weekly (83.3% vs. 43.8%). However, the difference was statistically not significant. Future studies may wish to replicate these findings because no research has connected age, perceived spiritually related significant life-changing experiences, and later life spirituality/religiousness. Nevertheless, our findings concerning the age when a significant life-changing experience occurred may imply that spiritual/religious upbringings can favor the spiritual interpretation of life experiences, reinforcing spirituality or religiousness.

In the group that had a life-changing spiritual experience, the mean age at which such an experience occurred ranged from 6 to 58 years. Still, the mean and the median ages were suggestive of occurrence in young adulthood. As expected, the age when a life-changing spiritual experience occurred and the age when the person noticed a strengthening in their religious/spiritual practices were strongly correlated. This positive correlation, accounting for nearly half (49%) of the variance between the two measures, suggests that the reported experiences were primarily positive and acted as reinforces of spirituality/religiousness. As we are unaware of similar studies, we cannot compare these results to past research. Thus, these findings should motivate future research testing the relationship between early-age life-changing spiritual events and spirituality/religiousness in later life.

Limitations

There are several limitations associated with this pilot work that call for caution in interpreting and generalizing the findings. The first is the general limitation in psychology research involving volunteer participants and a cross-sectional research methodology. The second is the relatively low number of respondents and the female majority, which is characteristic of online surveys. Third, the national homogeneity of the sample prevents cultural or cross-national inferences from the current results. Finally, the a posteriori grouping resulted in highly different subsample sizes, which might have affected the results.

Conclusions

Despite its limitations, this pilot study makes three noteworthy contributions to the extant knowledge: (1) there are differences in spiritual/religious attitudes and practices between those who have had a significant life-changing spiritual experience and those who have not; (2) the relationship between perceived life-changing experience and spirituality/religiousness is positive, but the association is more significant with spirituality than with religiousness; and (3) the relative age at which a perceived life-changing spiritual experience occurs is associated with greater involvement in spiritual/religious practices. Additionally, the age at which the perceived life-changing spiritual experience occurs correlates strongly

and positively with the age at which a perceived strengthening of spirituality/religiousness occurs.

Future research should examine specific life-changing experiences and their connection to religiosity/spirituality. The mediating role roles of cultural, gender, and age factors should also be determined. Furthermore, factors affecting people's gravitation towards spiritual rather than religious interpretations of perceived life-changing experiences also merit empirical scrutiny.

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Data availability The data are available upon request from the authors.

Declarations

Ethical approval The Research Ethics Board of the Faculty of Education and Psychology at ELTE Eötvös Loránd University granted permission for this study (certificate no. 2021/425).

Informed consent Informed consent was obtained from all participants.

Competing interests We have no competing interests to declare.

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