
The Daily Spiritual Experience Scale: Practical applications, scoring, versions, and empirical relationships to stress-buffering and resiliency-related outcomes

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Abstract: The Daily Spiritual Experience Scale (DSES) is a self-report measure designed to assess ordinary experiences of connection with the transcendent 'more than' in daily life. These include feelings of awe, gratitude, mercy, divine support, spiritual comfort, connection to all of life, compassionate love, and deep inner peace or harmony, among others. Since its original publication it has been translated into 40 languages, used in hundreds of publications, and adapted for use in many practical settings. Empirically, the DSES continues to predict greater resilience, stress buffering, post-traumatic growth, and sense of meaning in the face of illness, trauma and daily stressors, and less substance abuse and burnout. In this article we will (1) provide an overview of the scale and its applicability across populations, (2) provide updates and guidance on scoring, and appropriate modification of the language to suit particular needs, (3) review its use in the empirical literature most relevant to resilience and related outcomes, (4) describe practical applications of the DSES, such as clinical, organizational, and personal use, and (5) provide the checklist version of the scale, which is well-suited for assessing spiritual experiences over time, practically and in research.

Keywords: Daily Spiritual Experience Scale; DSES; spirituality; resilience; post-traumatic growth; addictions; PTSD; burnout; stress buffering; meaning in life

1. Introduction

Many people report that spirituality helps them to find meaning, bounce back from trials, avoid burnout, thrive in the midst of suffering, and avoid addictive behaviors. They may not be able to define it, but nevertheless identify it as an important part of life. It can be embedded in a religious framework or not. Despite the fuzzy nature of the concept of spirituality, we need to find words to communicate with our clients, family, and friends if we want to share experiences that can be valuable, and listen and learn from others. So often in this area polarization occurs. People with different religious affiliations disagree on specific beliefs, and those who are fed up with religion close off from those who are more religious and *vice versa*. But in many structured qualitative interviews internationally, common threads of spiritual connection have been found to be shared by people from very different cultures and who vary strongly in their beliefs (Underwood 2006). It was a desire to discover some kind of common language that led Underwood in the mid-1990's, through extensive qualitative and quantitative testing internationally, to develop a set of sixteen questions, the Daily Spiritual Experience Scale (DSES; Underwood and Teresi 2002; Underwood 2006). It measures ordinary experiences of a sense of connection with the transcendent in daily life. These include feelings of awe, gratitude, mercy, divine presence and asking for help, connection to all of life, compassionate love, and deep inner peace or harmony, among others. The goal was to get at both the depth and the breadth of these experiences for as wide a group of people as possible. Setting the scale apart from many other measures of spirituality or religion, the DSES measures feelings, sensations, and awareness, rather than specific beliefs. The word 'spirituality' in the context of the scale refers to aspects of personal life that include the transcendent, divine or holy, and 'more than' what we can see, touch, or hear. The sixteen questions of the DSES provide insight into the specific application of spirituality in everyday life. Rather than merely assessing the presence of spiritual beliefs, attitudes, or identifications, the DSES measures the degree to which individuals actually engage with and feel connected to everyday spirituality. Research using this scale can help us to step beyond the anecdotal to appropriately guide our incorporation of the spiritual aspect of life into therapy and even our own personal lives.

Since the construct of spirituality can envelope so many different aspects of life that include things as diverse as religious affiliation, specific beliefs, religious social support, spiritual struggle, and cultural belonging, lumping them all together leads to a variety of research results. The kinds of outcomes predicted by religious attendance are different than those predicted by specific beliefs, for example (e.g., Exline et al., 2000; Pargament et al., 2001). This can lead to confusion regarding what actions might be taken to enhance outcomes. This article will only look at research results from the DSES, which operationalizes one aspect of spirituality, although many researchers have used the DSES as a proxy for 'spirituality.' In over 400 published studies, it has predicted a variety of

outcomes. Because the DSES, although having trait-like qualities, can also change over time, we will also look at how enhancing the experience of connection with the transcendent in daily life can effectively lead to good outcomes.

And finally, we will suggest ways that these sixteen questions can be used to identify areas that might provide resources for you and for those you are caring for to draw on in times of distress and also enhance communication in therapy and practice.

2. Applicability Across Populations and Discussion of Versions

The DSES demonstrates strong utility across settings and populations; its breadth and the inclusion of a variety of spiritual experiences allow diverse individuals to see their own experiences reflected in the items. The scale was developed using extensive qualitative testing in a variety of populations, such as in diverse religious, ethnic, and social groups. The international reach of the scale was enhanced by interviews conducted by Underwood during the development of the scale in the context of two World Health Organization projects that included participants from 18 countries and all major religions. It was also tested initially in individuals who do not identify as religious (e.g., atheists, agnostics), and across age groups including adolescents. This qualitative testing and the subsequent quantitative use in a wide variety of studies indicate that the scale is applicable for people from various religious groups, as well as for those who are not comfortable with religion (e.g., Dong et al. 2017). The measure uses a combination of both theistic language (with alternatives offered) as well as non-theistic language. This allows it to draw on the depth of religious resources, but also to speak beyond the boundaries of faith for those who are uncomfortable with or disappointed in faith traditions. The DSES leaves space for spirituality that is religiously grounded and framed, as well as that which may not be. Importantly, although some of the items use the word 'God,' the introductory sentences in the original DSES allows one to offer culturally sensitive options for that substitution language within the introductory statement: "A number of items use the word 'God.' If this word is not a comfortable one for you, please substitute other words which calls to mind the divine or holy for you." And many have enriched this with "If this word is not a comfortable one for you, please substitute other words which calls to mind the divine or holy for you such as: Higher Power, Allah, Creator, Ultimate Reality, Goddess, Lord, Tao, G_d, Supreme Consciousness, Great Spirit." Online formats can allow for electronic substitution of the respondent's word choice for each item. This has become more salient in our contemporary environment, where the word "God" is not comfortable for many or sometimes alienating, even if the construct of a transcendent reality retains a significant role in their lives. More recently, inline alternatives have been directly included in the specific items themselves, such as demonstrated in the checklist version (see the Appendix).

One of the aspects of the scale that has enabled wide usage has been the simplicity of language. When people register to use the scale, one of the reasons they often give for its selection is the ease of understanding for those of many educational levels and ages. Also, in the development of the scale, effort was made to construct each item in a way that would be less prone to social desirability bias than many other scales. And the introductory sentences in the scale states "The list that follows includes items you may or may not experience. Please consider how often you directly have this experience, and try to disregard whether you feel you should or should not have it." When sharing the questions in other formats, or to simplify those instructions, a possible alternative statement is: "There are no right answers."

The DSES has been translated into 40 languages, including Arabic, Croatian, Danish, Dutch, Filipino, Flemish, French, Greek, Hebrew, Hungarian, Italian, Korean, Latvian, Malay, Malayalam, Nepalese, Persian, Polish, Portuguese (Brazil and Portugal), Romanian, Russian, Serbian, Slovenian, Thai, Turkish, Ukrainian, and Urdu. Papers have been published on the psychometric validation of translations of the full 16-item DSES in Mandarin Chinese (Ng et al. 2009), Indonesian (Qomaruddin and Indawati 2019), Czech (Maliňáková et al. 2018), Slovak (Soósová and Mauer 2020), Hindi (Husain and Singh 2016), German (Schmidt 2010), Spanish (Sierra Matamoros, Sánchez Pedraza, and Ibáñez Antequera 2013; Mayoral Sánchez et al. 2014), Portuguese (Kimura et al. 2012), and a number of other languages. Psychometric evaluations of translations have also often been done when using the translations in studies themselves.

The 6-item short form of the scale, which uses 8 of the items from the full DSES, was used in the Brief Multidimensional Measure for Religiousness and Spirituality (BMMRS; Idler et al. 2003), and does show high correlation with the 16-item version. However, because it was developed ad-hoc rather than psychometrically and has two double-barrelled items, we recommend using the full 16-item scale whenever possible. Items from the DSES are also included in the baseline Spirituality Survey (SS-1) in the Study on Stress, Spirituality, and

Health and other longitudinal studies (SSSH; Warner et al. 2021). Additional details on theoretical background, the development and psychometrics of the scale, and the full 16-item version, can be found elsewhere (dsescale.org; Underwood, 2006, 2011; Underwood & Teresi, 2002). Most of the research cited in this article has been done using the original version of the scale with frequency responses (Never, Once in a while, Some days, Most days, Every day, Many times a day).

There has been increasing use of a checklist version of the scale, as well as an open-ended version. The checklist version, included as an appendix to this paper, is particularly useful in therapeutic settings and also in studies such as those using smartphones or using ecological momentary assessment, that do repeated measures over a short timeframe (e.g., Brelsford, Underwood, and Wright 2020; Kent et al. 2020; Wright et al. 2017). It demonstrates very similar psychometric properties to the original version of the scale (i.e., the 16-item frequency scale), making it a helpful addition to research (Vagnini & Masters, 2020).

3. Scoring

The following section is intended to clarify scoring of the full 16-item DSES.

Individual items. Using the DSES in a quantitative way requires some kind of scoring. Items 1-15 are scored: *Never 1, Once in a while 2, Some days 3, Most days 4, Every day 5, Many times a day 6*. Item 16 is scored: *Not at all 1, Somewhat close 3, Very close 5, As close as possible 6*.

Mean score. The best way to score the whole DSES is using a mean score – adding all item scores up and dividing by 16. This is better than a total sum score for the following reasons: (1) using mean scores allows for examination of individual items or subgroups, (2) it can compensate for missing responses, as you can divide the total by the number of answered questions to get a mean score, and (3) mean scores also more easily allow comparison with other research that used a 6-item version or only 15 items.

Interpreting group scores. There are no set high, medium, or low scores for the DSES that can be applied universally. Retaining the group means as continuous variables, rather than grouping data into high, medium, and low, better allows for comparison across studies. In fact, for many other scales the grouping into these categories is an ad hoc division that is not particularly linked with practical outcomes or correlations. Regarding norms, the DSES was put on the General Social Survey in the US (Underwood 2006), which established norms for a random sample of the US population. Other individual country-level studies have established norms that can be useful for comparison of populations. Finally, within each research study, investigators can find natural breakpoints and distribution within their data to guide interpretation based on prior hypotheses of interest.

Interpreting individual scores. Number scores are not appropriate for comparing specific people with one another. To look at one person's score and compare it with another's can be counterproductive. People start from different cultural backgrounds and substrates of emotional sensitivity and sets of beliefs. This evens out when looking at whole group averages but can obscure things when comparing one individual to another. In individual assessment in practical application contexts it is particularly important that there are no absolute high, medium, or low levels of ordinary spiritual experience. Each individual has specific personality and sensitivity variables, as well as different life situations and levels of comfort with religious language. It doesn't work to compare individual scores with one another in a treatment or organizational setting. However, it can be quite useful to look at changes in a person's own score over time.

Change over time. A valuable use of the DSES in its quantitative form is to examine how scores vary over time, whether following an intervention such as a treatment or educational regime, a discrete set of events, a long-term life experience, or a developmental trajectory. After some change or intervention, or merely to follow the experiences and resources of a client or participant, you can compare the scores of a single person over time using the original version or the checklist version. Likewise, you can use group averages to look at correlations with other factors and outcomes over time to answer questions about causation and interactions of variables. In a smartphone study, Wright and colleagues (2017) calculated an overall mean for the person (trait level DSES) and then examined deviations from the person's mean at each point that data was collected, comparing where the person was relative to their average. That is, they measured the variation in DSES above and below normal for that person. The variations around their mean were predictive of certain outcomes such as less feelings of stress, or more capacity to have a caring attitude for those around them or strangers.

Subgroup analyses. Most studies have shown a unifactorial loading of all the 16 items on a single factor, and high inter-item correlation using statistical methods such as Cronbach's alpha (Underwood 2011). This encourages us in using a mean score for the whole DSES in research and practice. That has been the case in most of the studies reviewed here. However, some studies have shown two factors. Especially in populations

with a substantive group of people for whom the word “God” may not be comfortable, there can be a tendency for the items containing that word to be reported less frequently than others, or to be differentially correlated with outcomes. However, it is important to note that some studies finding such a division have used the scale without the introductory sentences that allow for substitution language for the word “God.” Inclusion of the introductory sentences and offering formats with alternative in-line language help soften this division, but it may still remain. Eight of the items mention the word “God,” and eight do not. If separated into two groups in analysis, the researchers often call them theistic and non-theistic, or theistic and self-transcendent. These labels are misleading, as many who are theistic score highly on the ‘non-theistic’ items, and many of the theistic items represent ‘self-transcendence.’ These labels assigned to subgroups can unduly influence interpretations of results and implications for action. For example, “I feel a connection to all of life” can be particularly salient for non-theists. However, as environmental awareness increases, this may also be increasingly relevant for theists in many Christian, Jewish, Muslim, Hindu and indigenous theistic traditions. And even those who categorize themselves as atheists can express implicit attitudes toward a transcendent reality when they report experiences of some of the items containing the word “God,” especially when using the substitution language in the introductory statements or inline alternatives. An example of this complexity was demonstrated in a study looking at people in the Basque area of Europe, where they found that atheists actually scored higher on the full DSES than those self-identifying as Christian (Mayoral Sánchez, Laca Arocena, and Mejía Ceballos 2010). The DSES was designed based on research demonstrating that some people may not identify as religious, yet use much religious language, and even continue many religious practices, or use religious frameworks in their approach to life. Explicit beliefs and implicit attitudes are not necessarily linked. Self-reported belief or unbelief is often belied by attitudes and feelings, and cognitive adherence to a belief set may not map onto some factors of significance. The researcher or practitioner should not create boundaries or categories that may not exist in the mind of the respondent. Cultures will also differ as to if, or how, this kind of division might be useful. We would expect that as the use of the scale evolves and increasing use of alternative inline language or ability to actually substitute one’s own word choice becomes more technically feasible, results will tend even more towards a unifactorial solution.

Another subgroup of items that has been used are the two items: “I feel a selfless caring for others” and “I accept others even when they do things I think are wrong.” These items have been labeled the compassionate love items and analyzed separately, especially in studies of relationship quality and prosocial behaviors (Underwood 2009).

Individual items. A few studies have either used only individual items from the DSES or analyzed individual items separately. Each individual item in the DSES taps one particular aspect of ordinary spiritual experience, and particular items may be especially salient for particular research hypotheses or useful personally or professionally. The deep inner peace or harmony item, the thankful for blessings item, and the items that tap into a sense of transcendent compassionate love may be ones worth focusing on in particular settings or research.

4. Empirical Evidence

Originally developed for use in health studies, the DSES has been increasingly used for program evaluation, for personal reflection, for examining changes in an individual’s spiritual experiences over time, and in the social sciences. It has been used in counseling, addiction treatment settings, and in various secular and religious organizations. Although not a comprehensive review of the current DSES literature, in the following sections we will provide overviews of findings from selected areas of research: (1) stress-buffering and resilience, (2) substance use and addictions, (3) burnout and compassion fatigue, and (4) intervention studies. By focusing here on the predictive and associative value of one particular measure, it helps us to see what specifically we might be able to do in order to be helpful to people in the midst of distress of various kinds, or preventatively.

4.1. Stress Buffering and Resilience

A basic reason that more frequent ordinary spiritual experiences can lead to various positive outcomes, even in the midst of tough times, is that they can enable a person to be more resilient. These experiences can buffer stress. Feeling stressed or showing evidence of stress in physical, mental, or social ways results from both our experience of a stressful event or events, as well as our response to them (Cohen, Kessler, and Underwood Gordon 1995). Resiliency is our ability not to be swamped by stressful events or circumstances, but to “bounce

back.” Resilience has some trait qualities, meaning that some of us tend to be more resilient than others, but it can also vary over time within individuals. Accumulating evidence indicates that daily spiritual experiences (DSEs) may equip individuals with resilience during or in the aftermath of difficult life experiences, or even in the face of day-to-day stressors. DSEs, such as finding strength or comfort in religion or spirituality, feeling loved directly from a divine being or feeling compassionate love from others, or a feeling of closeness to a transcendent source, can help buffer stress. DSEs may also promote a sense of meaning in the face of adversity. Growth can also sometimes follow tough times such as chronic or acute disease, disability, disasters, or loss. This growth – often referred to as post-traumatic growth – is associated with more frequent DSEs, which can provide support and help individuals to make sense of troubles and find meaning in challenging times. The following sections describe some of the studies that look at how DSEs buffer stress and promote resiliency and growth following difficult life circumstances, in the face of illness, and during daily life.

4.1.1 Health and Illness

A number of studies furnish evidence that DSEs provide resilience in the face of significant illness, often reflected in health behaviors and indicators of physical and mental health. DSEs predicted a stronger sense of being able to cope with their illness and a sense of self-efficacy in older adults living with congestive heart failure (Park, Brooks, and Sussman 2009). Daily spiritual experiences were also linked with higher existential well-being and predicted less subsequent spiritual strain in those with advanced congestive heart failure (Park et al. 2014). In 127 Italian hospice patients with a life expectancy of a few weeks, spirituality, measured using the Italian translation of the DSES, was positively associated with dignity enhancement, whereas self-blame coping style, negative emotional and physical well-being, and depression predicted loss of dignity (Bovero et al. 2018). Among a sample of 120 women with infertility, those with more frequent DSEs had less infertility stress and feelings of failure (Rezaei, Mahmood Mosavinezhad, and Ansari 2020). Among a sample of 110 community-dwelling adults aged 50 years and older, Moehling et al. (2021) studied whether spirituality reduced the effect of low quality of life on risk for frailty. The authors found that spirituality did serve as a buffer, noting that spirituality had a beneficial effect in lessening the negative impact of poor quality of life upon physical frailty. Najihah et al. (2020) found that more frequent DSEs were associated with less psychological distress in a sample of 64 hemodialysis patients in Malaysia.

Several studies investigate DSEs in the context of cancer. In cancer survivors between 18 and 55 years old, 1-3 years post-diagnosis, Park et al. (2013) examined predictors of emotional (worry) and cognitive (perceived risk) dimensions of fear of recurrence and their relationships with psychological well-being. Among several psychosocial variables, spirituality was the only predictor of perceived risk independent of the effect of race, even when worry about general health was controlled for. A study of health behaviors and daily spiritual experiences, religious attendance, and religious struggle in a sample of 167 younger adult survivors of a variety of cancers revealed that religious attendance had little impact on health behaviors, but that DSEs were related to greater performance of health behaviors, while religious struggle was related to less. Self-assurance partially mediated the effects of DSEs, while guilt/shame partially mediated the effects of religious struggle. The findings suggest that DSEs affect lifestyle choices of cancer survivors and link to greater wellbeing (Park et al. 2009). Relatedly, in a large scale prospective longitudinal study of cancer survivors, Rudaz et al. (2019) found that spiritual experiences enhanced life satisfaction over time, especially in those with low life satisfaction at baseline. Regression analyses, controlled for age, educational attainment, and religious/spiritual coping, showed that DSEs moderated the association between life satisfaction and positive affect at baseline and follow-up. In a sample of 234 cancer patients in Iran, those who had more frequent DSEs had more resilience (Savaryand and Savary 2019).

The COVID-19 pandemic has presented new threats of illness and mortality on a global scale, and bereavement has added significant burden to people’s lives during this time. A number of researchers are conducting ongoing studies assessing the DSES in relation to the COVID-19 pandemic. Some have already published these results. Gülerce and Maraj (2021) studied 546 Turkish community members during the COVID-19 pandemic and found that those with more frequent DSEs had greater resilience and less hopelessness during this time of illness uncertainty. Rias et al. (2020) found that, among a sample of 1082 community members of 17 provinces in Indonesia, those with more DSEs had less anxiety regarding COVID-19 than those who had less DSEs. In a U.S. sample of 127 adults, those with more frequent DSEs also reported greater resilience during the COVID-19 pandemic (Roberto et al. 2020).

4.1.2 Exposure to Violence and Trauma

Many have investigated the role that daily spiritual experiences may play in buffering the adverse effects of trauma and exposure to violence. One study found that more frequent DSEs predicted higher resilience during emerging adulthood following childhood exposure to violence. The potency of protective factors like DSEs outweighed that of adversity and psychopathology (Howell and Miller-Graff 2014). In another study, DSEs reduced the effects of exposure to violence in the community on psychological well-being for urban African American adolescents and also contributed significantly to satisfaction with life and positive affect over and above demographic factors and the perception of family support (Shannon et al. 2013). A study of 162 children aged 9-12 in Indonesia found that more frequent DSEs increased resilience after being exposed to flooding (Syukrowardi, Wichaikull, and Von Bormann 2017), and a study of 332 student earthquake survivors in Pakistan found that more frequent DSEs were associated with greater sense of coherence and less stress (Zafar et al. 2019). In 223 Latino adolescents residing in poor, urban neighborhoods, personal victimization and witnessing violence were associated with higher depression and posttraumatic stress disorder (PTSD) symptoms at low and average levels of a number of religious variables, but not at high levels of spirituality measured using the DSES (Jocson et al. 2020). More frequent DSEs in young adults buffered the negative effects of having a depressed parent (Rounding et al. 2011) and DSEs were associated with lower risk of depression among early childhood education staff regardless of the adverse childhood experiences they were exposed to early in life (Whitaker, Dearth-Wesley, and Herman 2021). In addition to investigating childhood and young adult exposure to violence or trauma, some studies have investigated the role of DSEs in post-traumatic stress disorder among veterans of war. For example, spiritual experiences predicted less suicidal thoughts in a group of veterans diagnosed with PTSD (Kopacza et al. 2016).

4.1.3 Enhanced Sense of Meaning in Life and Post-Traumatic-Growth

When we hit tough times, we can sink or swim. The previous sections highlighted research that explored how DSEs can help prevent a person from sinking, or help them bounce back when faced with difficulties. Growth can also follow tough times such as chronic disease, acute disease, disability, disasters, or loss. Sometimes this growth, often called post-traumatic growth (PTG), enhances our sense of meaning or coherence in life, which can add much to the quality of our lives. The following studies using the DSES demonstrate how more frequent DSE's can contribute to positive change and growth as a response to difficult circumstances.

In samples of heart failure patients and cancer survivors, higher baseline spirituality (DSES) predicted more positive change in meaning over time (i.e., 6 months later for heart failure patients and 12 months later for cancer survivors), supporting the notion that spirituality can provide increased meaning in life among individuals dealing with substantial adversity (George and Park 2017). These authors also found, in a sample of 167 cancer survivors, that baseline DSEs predicted greater sense of meaning in life one year later, and that meaning was positively correlated with PTG at that time (George and Park 2013). Similarly, more frequent DSEs predicted more post-traumatic growth in bereaved people (Currier et al. 2013), in patients with leukemia in Iran (Karami and Kahrazei 2018), in parents who lost young children in India (Khursheed and Shahnawaz 2020), and among online and community samples of U.S. Muslims (Saritoprak, Exline, and Stauner 2018). More frequent DSEs have also predicted greater sense of meaning in life in students in Poland (Wnuk and Marcinkowski 2014) and greater sense of coherence in Catholic pastoral workers in Germany (Kerksieck et al. 2017).

4.1.4 Daily Stressors

Although there can be trait-like consistencies over time, the DSES also has state-like characteristics, lending it well to examinations of change over time. Intensive longitudinal designs, such as experience sampling methods (ESM), allow for more nuanced investigations of the relationships between DSEs and day-to-day stress. A 2012 study of 244 older adults sought to investigate the day-to-day processes underlying the stress-buffering effect of the DSES. Participants completed daily assessments for 56 days assessing perceived stress, DSES, positive affect, and negative affect. Findings revealed a stress-buffering effect such that DSEs buffered the negative effect of perceived stress on same-day negative affect. Findings also revealed a positive direct effect of DSEs on positive affect (Whitehead and Bergeman 2012). Similarly, a recent smartphone-based, Experience Sampling Method (ESM) study of 1691 participants also demonstrated stress-buffering effects of DSEs. Increased stressors predicted a reduction in attitudes of love for others. However, more frequent DSEs moderated the negative effect of stressors on love, indicating a buffering effect (Brelsford, Underwood, and Wright 2020). In another analysis utilizing ESM, the researchers found support for a moderating role of both state and trait DSEs on the relationship between stressors and well-being. Notably, state scores of DSEs were associated with

positive outcomes above and beyond more general trait scores, indicating that intensive longitudinal methodologies may serve as a fruitful avenue for future research and may allow for more precise investigations of the relationship between DSEs and various health outcomes (Kent et al. 2020). These authors also found that DSEs are associated with psychosocial benefits (i.e., reduced depressive symptoms and more flourishing) regardless of whether the items were explicitly theistic or non-theistic. Overall, the results from these studies indicate that DSEs positively contribute to well-being in a direct and immediate way; even controlling for general tendencies in individuals' own DSES scores, short-term increases or decreases in DSEs significantly predict positive and negative outcomes.

4.2. Substance Abuse and Addictions

The relationship of DSEs to addiction is particularly relevant given the increasing incidence of addictive behaviors and their impact on our societies. Addiction can be found in relationship to activities as various as cellphone use, online gaming, social media, gambling, as well as abuse of various substances such as alcohol, opioids and other drugs. Addiction is a result of biological processes, psychological substrate and attitudes, and environmental factors, but there is also a place in the addictive process for emotional modulation and a cognitive override of the urges to enact various addictive behaviors. Results from a growing body of literature suggest that DSEs may play an important role in the treatment and recovery from addiction. As described earlier, DSEs can act as a stress buffer, and many seek out addictive substances as a response to stress, seeking to ease the discomfort. Addictions can also follow on from feelings of loneliness and alienation, and the experience of connection with the transcendent grounded in daily relationships and attitudes assessed by the DSES may relieve some of those feelings. The following are a few of the studies on the DSES and substance abuse and addictions.

One of the most compelling studies showing the relationship of more frequent DSEs and diminished addictive behaviors is an intervention study. Increasing frequencies of DSEs improved self-care and care for others in 195 youths who had been court referred to a 2-month addiction treatment program. Increasing frequency of DSEs over the course of treatment were also associated with greater likelihood of abstinence from alcohol or drugs, increased pro-social behaviors, and reduced narcissistic behaviors (Lee et al. 2014). Another study investigated the outcomes of 364 alcohol-dependent individuals both in treatment and not in treatment and found that six-month increases in DSEs predicted less drinking at nine months (Robinson et al. 2011). Following 123 alcoholics for six months after entry into treatment, analysis showed that increases in DSEs (but not positive religious coping or forgiveness) were associated with increased likelihood of no heavy drinking at six months. In the first 6 months of recovery, DSEs increased. Values, beliefs, self-assessed religiousness, perceptions of God, and the use of negative religious coping did not change. Increases in day-to-day experiences of spirituality and sense of purpose/meaning in life were associated with absence of heavy drinking at 6 months, regardless of gender and Alcoholics Anonymous involvement (Robinson et al. 2007). Notably, Alcohol Anonymous involvement itself may predict greater frequency of DSEs. In a sample of 364 individuals with alcohol dependence, greater AA involvement was associated with more frequent DSEs after controlling for drinking (Krentzman et al. 2017). Other studies have also found DSEs to be uniquely protective against degree of substance use, and one study of 3966 Adolescents and 2014 older adults demonstrated this convincingly (e.g., Barton & Miller, 2015). There also appears to be a reciprocal relationship between recovery and DSEs, such that DSEs promote abstinence, and that recovery then increases frequency of spiritual experiences (Zemore and Kaskutas 2004). DSEs can also help with other types of addictions: Charzyńska et al. (2021) found that DSEs had a direct negative effect on shopping addiction among 430 Polish students. Finally, Shorkey, Uebel, and Windsor (2008) reviewed 10 measures of religiousness/spirituality for use in addiction research, and concluded regarding the DSES that "the usefulness of this scale for assessing the spiritual experience of a person in treatment and recovery may be profound" (p. 291). Collectively, the results of these studies indicate a link between ordinary spiritual experience, as measured by the DSES, and a variety of alcohol- and drug-related outcomes, such as reduced alcohol and drug use, increased likelihood of sobriety and recovery, and increased prosocial behaviors. It appears that experiencing more day-to-day connection with the transcendent may be an important aspect of recovery from alcohol and drug dependency. Future studies may continue to broaden the research scope beyond drug and alcohol to see if DSEs have the same salutary effect with other forms of addiction. A final note for this section: aside from using the DSES for research, the scale may serve as a clinical or communication tool to better understand the nuances of individuals' experience with the transcendent and how that may affect their personal treatment or recovery. A strong literature indicates that spirituality is often an important

component of addictions treatment and the DSES can be used by patients to promote better self-understanding and help find additional supportive resources.

4.3. Burnout and Compassion Fatigue

Burnout is more and more a part of contemporary life. The Covid pandemic has made this especially visible and salient. The World Health Organization has recently included a diagnostic category of burnout in the workplace. The characteristics of burnout include physical fatigue, cognitive weariness, and emotional exhaustion. It is especially common in the caring professions and those working with people in the midst of traumas or crises. People in these situations are often said to experience “compassion fatigue.” Since the situations that bring on burnout often cannot be changed, techniques to increase various DSEs may be a way to diminish burnout and compassion fatigue. It makes sense that the ordinary experiences of spiritual connection might be helpful here, building on the previous discussion of stress buffering and resilience. The DSES measures experiences that can replenish us when stretched to our limits, making the experience of giving of self to others less draining.

Caring professionals are particularly prone to burnout. Medical students who have more frequent DSEs described themselves as more satisfied with their life in general, while medical students with low scores on the DSES had higher levels of psychological distress and burnout (Wachholtz and Rogoff 2013). Health care workers in Hong Kong with more frequent DSEs experienced less burnout, less depression, and less anxiety (Ng et al. 2009; Hung Ho et al. 2016; Ng 2014). More frequent DSEs were correlated with physical, cognitive, and emotional forms of burnout (physical fatigue, cognitive weariness and emotional exhaustion) in professionals working in palliative care or end-of-life settings (Holland and Neimeyer 2005). Similarly, in 113 Residential Aged Care Home staff from different locations with high exposure to death and dying, Frey et al. (2018) found that more frequent DSEs and religious affiliation were associated with lower scores for burnout. In a sample of counselors, Browning, McDermott, and Scaffa (2019) found that gratitude and DSEs were associated with reduced burnout. Studies also indicate that DSEs are protective against compassion fatigue among mental health providers (Patel 2018; Newmeyer et al. 2014). More frequent DSEs also predicted less compassion fatigue and more compassion satisfaction among 147 Israeli residential child-care workers in residential treatment facilities for children and youth at risk (Zerach 2013). In 8574 German pastoral professionals (48% priests, 22 % parish expert workers, 18 % pastoral assistants, 12 % deacons), DSEs buffered the negative effects of stress on health (Frick et al. 2016). A study of Protestant ministers in Germany showed that more frequent DSEs were correlated with diminished burnout (Votmer et al. 2010). These studies lend support to spiritual experiences as buffers to burnout and compassion fatigue among those caring for others, and a possible guide to providing resources to caregivers in order to diminish these effects.

4.4. Intervention Studies

Considering that DSEs appear to influence a variety of psychological and physical health outcomes, developing interventions aimed at increasing DSEs in daily life is a logical next step for consideration. And some studies have already found specific interventions to be efficacious in increasing DSEs. Spiritual forms of meditation, it appears, may be one avenue by which individuals can deliberately foster the experience of connection with the transcendent and increase the frequency of DSEs. For example, in a 2004 study in which participants were randomly assigned to learn either (a) relaxation techniques, (b) secular meditation, or (c) spiritual meditation, those in the Spiritual Meditation group reported significantly more DSEs than those in the Secular Meditation group or the Relaxation group (Wachholtz and Pargament 2005). There is also evidence that mindfulness-based interventions can increase DSEs and that DSEs actually mediate some of the effects of mindfulness (Geary and Rosenthal 2011; Greeson et al. 2011; 2015). Certain other practices (prayer, reading scripture, seeking guidance, and being in solitude) may also increase DSEs more than attending religious services and meetings, as demonstrated in the smartphone study of repeated measures mentioned previously (Wright et al. 2017). In another study, nursing students and RNs completed a self-study program designed to teach them how to talk with patients about spirituality and reported more frequent DSEs after completion of the program relative to baseline (Taylor et al. 2009). In a study of 5339 adolescents (aged 13-15) from 60 schools across 15 countries, a customized spiritual program was administered. Post-treatment DSEs of the experimental group were higher at post-test than at pre-test, indicating that spiritual interventions may increase DSEs in adolescents cross-culturally (Pandya 2017). Similarly, in a 2-week, two-armed randomized controlled trial, researchers investigated an online contemplative prayer program for Christians with daily stress. DSEs increased over time in the

intervention group in a dose-response way (Knabb and Vazquez 2018). A multi-faith spiritually-based intervention in Canada also increased DSEs over time and helped patients with generalized anxiety disorder (Koszycki et al. 2010). A one-month Mind-Body-Spirit intervention in Hong Kong increased DSEs among staff who provide services for the elderly (Ng 2014). The section on substance abuse summarized a number of studies looking at addiction interventions using the DSES to follow clients over time. Goldstein (2007) devised a clinical intervention aimed at deliberately cultivating sacred moments in daily life. The intervention (which consisted of a combination of mindfulness techniques, placing attention on a sacred or meaningful object, and opening oneself up to experiencing sacredness in the moment) successfully resulted in participants experiencing more frequent DSEs relative to baseline. Similarly, Koenig, Pearce, Nelson, and Erkanli (2016) sought to assess whether religiously integrated cognitive behavioral therapy (RCBT) increased DSEs in a sample of participants with major depressive disorder and chronic medical illness. The authors found that DSEs significantly increased after receiving RCBT, and that RCBT was more effective than conventional cognitive behavioral therapy (CCBT) with regard to increasing DSEs, especially in those with low religiosity. Interestingly, in a sample of incarcerated adolescent males, DSEs increased over time during the 2-year “boot camp” style incarceration and predicted enhanced family communication and behavioral control (Stewart, Drum, and Rapp 2018). Finally, it appears that having more frequent DSEs at baseline can help achieve the goals of interventions intended to affect other outcomes. For example, in a sample of 532 U.S. veterans in a residential treatment program for combat-related PTSD, those who scored higher on certain dimensions of spirituality (daily spiritual experiences, forgiveness, spiritual practices, positive religious coping, and organizational religiousness) at intake fared significantly better in this program (Currier, Holland, and Drescher 2015). DSEs may also mediate the relationship between prayer as a spiritual practice or intervention and well-being in some faiths (Albatnuni and Koszycki 2020). Especially given the salubrious effects of DSEs on health and well-being, future research may seek to develop interventions to increase DSEs in specific populations. Understanding which groups experience or relate to which specific subgroups of DSEs could help develop more tailored and efficacious interventions (Kent et al. 2021). Creative mining of various spiritual and religious practices designed to enhance ordinary spiritual experience and tested over the centuries may be especially useful.

5. Other Applications of the DSES

The DSES questions have clinical, organizational, and personal applications. The research supports this. Merely asking the questions in the DSES *draws attention to* transcendent experiences, and in the process individuals can become more intimately aware of and in touch with them during the day, and experience them more often. As we see in the research showing good effects of more frequent DSEs, this is a desirable outcome for most people. The checklist version of the scale, provided in the appendix, asks whether respondents have recently had a variety of these experiences. This version can be used as a personal check-in tool, drawing attention to aspects of life that can be sustaining, but can pass by unnoticed. Individuals or their caregivers may see that there are some items experienced regularly, and this may be a clue to resources to draw on. Does the person feel thankful for blessings regularly? – if so, this can be something that can be drawn on as a positive aspect of life, even in stressful times. And asking if they have recently found comfort in their spirituality or religion could be a reminder of a resource to draw on. The more active question of whether they have felt other-centered love for other people may be a reminder that this is something that might contribute goodness to their lives and strengthen their relationships with those around them. Individuals have found the checklist version useful on a personal level. Having the list in a journal, smartphone or in a calendar that they refer to on a daily basis can act as a reminder to look for experiences that can add positive moments to their days. One family social services organization that had issues with burnout in staff sent out regular emails with these questions one by one over a series of weeks. Most staff found these reminders a positive contribution to their days.

There is also an “open-ended” version of the questions that can allow for deeper reflection. This version of the scale, very similar to the checklist version in its structure, prompts people to reflect on their experiences in response to the questions. It then encourages them to describe one or more of their experiences, elaborating on when and where they have had them. An example of this for the first DSES question is:

Have you been spiritually touched by the beauty of creation?

What are a few experiences that capture this for you? Give yourself a moment to reflect on some specific times you have felt awe, or times when you may have felt touched by the beauty of creation. This could be in nature, or while

listening to music or viewing visual art, for example. Pick something that was vivid for you, and describe your feelings.

Using the questions in this way can provoke people to see aspects of their days in new ways, or remind them of circumstances or environments they can seek. There is a book that goes through the whole set of items in this open-ended way, with prompts that give many examples from interviews of responses to these open-ended questions, and themes embedded in the questions (Underwood 2013). It was reformatted as an audio-book to make it more accessible for many (Underwood 2020). The DSES has been used in this way in workshops for health care professionals. It has been especially useful for those vulnerable to burnout during the Covid-19 pandemic. The open-ended questions with the prompts of others' experiences can be used in clinical settings as well. The DSES can also be used to facilitate communication and deepen our relationships with others. The questions in the DSES, because of their broad and wide applicability for those of many religions, as well as those not comfortable with religion, can provide a bridge between therapist or other caregiver, and client or patient. Spiritual issues can be hard to bring up in a therapeutic situation. Beliefs may differ. But these questions, because of their focus on ordinary experiences rather than beliefs, can avoid some of the conflicts that can arise in this regard. This is particularly important in the therapeutic context. People may have spiritual resources that they draw on, or are possible for them to use as resources, and these questions can enable these to be included in the therapeutic conversation in a non-threatening way. There are additional tips on how to best navigate these conversations in a respectful, openhearted, and openminded way (e.g., Underwood, 2013). Sharing about spiritual aspects of life with others seems to have a particular power. It can lead to greater generativity, or caring for others and the world (Brelsford et al. 2009). When done correctly, discussing spiritual experiences with others can enrich our work and communication in the secular workplace, in religious groups or faith-based organizations, and in therapeutic settings. These questions can also effectively facilitate communication and deepen understanding of the spiritual experiences of those we have close relationships with, helping to open a dialogue about spirituality among family, friends, partners, and others.

6. Conclusion

The kinds of ordinary experience the DSES measures includes: a sense of awe in nature or feelings of spiritual inspiration from art or music; feeling thankful for blessings; feeling divine love directly or through others; feeling compassionate love towards others centered on their well-being; a merciful attitude; transcendent joy; a sense of deep inner peace or harmony; a sense of religious/spiritual strength, guidance, comfort; longing for spiritual connection; and a sense of closeness to God and/or divine presence. Although the scale does not measure how spiritual you are, something beyond the scope of a self-report measure, many researchers do use it as a proxy for a person's spirituality. Because the DSES refers to specific feelings and internal events, it can get at a person's experience of spirituality in an operational way. The questions were developed using in-depth interviews with many religious and ethnic groups, social groups, and ages; with agnostics and atheists; and with people from many countries. It complements other measures of religion such as affiliation, private and public practice, attendance, religious coping, religious social support, beliefs. The DSES works for people who are not comfortable with religion as well as for people from various religions. It can touch the depth of the religious traditions and help draw on those resources but can also speak beyond the boundaries of faith to those disappointed in, or uncomfortable with, faith traditions. There are a variety of resources we can draw on in tough times, to build our resiliency, to buffer stress, and to encourage flourishing in the midst of these. Enhancing daily spiritual experiences are not necessarily the best or primary way to do this. There are many other resources or attitudes we can draw on or cultivate. But the spiritual experiences the DSES captures do provide a way that is not that "costly" to us. And these experiences may also actually enrich our lives, and we may find them worthwhile in and of themselves. Throughout the world, changes are happening in how people see spirituality and religion fitting into daily life (Pew Research Center, 2015). Regardless of an individual's beliefs, the DSES captures an important aspect of life for many. Given the empirical support for the validity of questions in different cultures and their correlation with many good outcomes, we can have confidence that efforts to enhance awareness of these experiences can make a positive contribution to the lives of people in many circumstances. Regardless of religious or cultural orientation, many people have meaningful experiences that are captured in the DSES. These can be nurtured by religious practices or in ways compatible with a more secular worldview. The variety of questions in the DSES, when asked sincerely and reflected on earnestly, can promote

deep self-discovery. When embodied in everyday living, DSEs can result in life satisfaction, flourishing, and a strong sense that life is well worth living, even in tough times.

Appendix

Most of the research studies highlighted in this paper use the frequency version of the 16-item DSES found in Underwood 2011. However, some of the studies used the following checklist version in repeated measures designs, such as in experience sampling studies or ecological momentary assessment studies. This version has also been useful in personal and professional settings such as in therapy and counseling or among religious groups or faith-based organizations. These questions in the checklist version and administered in a more open-ended way as described earlier, may be also be valuable therapeutically when attempting to identify resources that could be drawn upon in treatment. For example, certain items may identify experiences that are particularly salient for different clients.

The checklist version also demonstrates how one might insert alternative language into the items of the original frequency version rather than relying on the introductory statements with substitution options. For many uses in our contemporary world, this kind of substitution of language can work well. It can be less unwieldy than having to provide the more complex introductory sentences and may make it more accessible for some respondents.

Checklist Version of the Daily Spiritual Experience Scale

Response categories: No 0 Yes 1

Recently... (can also be delimited, as in 'Today,' 'In the last hour,' etc.)

1. Have you been spiritually touched by the beauty of creation?
2. Have you felt God's presence, or the presence of the divine or holy?
3. Have you experienced a connection to all of life?
4. Have you felt close to God, or to the divine or transcendent as expressed in other words?
5. Have you desired to be closer to God or in union with the divine?
6. Have you felt God's love or divine love for you directly?
7. Have you felt divine love or compassionate love for you through others?
8. Have you felt a selfless caring for others?
9. Have you accepted others even when they have done things you think are wrong?
10. Have you found strength in your spirituality or religion?
11. Have you found comfort in your spirituality or religion?
12. Have you felt guided by God in the midst of daily activities?
Or: Have you felt divine guidance in the midst of daily activities?
13. Have you asked for God's help in the midst of daily activities?
Or: Have you asked for help from a higher power as you go through the day?
14. During worship, or at other times when connecting with God, have you felt joy that lifts you out of your daily concerns? **Or:** At times when connecting with the "more than" have you felt joy that lifts you out of your daily concerns?
15. Have you felt thankful for your blessings?
16. Have you felt deep inner peace or harmony?

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