INTRODUCTION

Spirituality is an important component of personal well-being. Although the concepts of physician well-being and burnout (both attending and resident) have garnered increased attention across medical specialties, little has been written about the role of spirituality in achieving wellness and mitigating burnout within surgery.1,2 In a broad sense, spirituality describes an individual’s relationship with what is transcendent and beyond the physical, an experience shared by both religious and nonreligious individuals.3 The spiritual aspect of humanity seeks to determine meaning, purpose, and value in life. Spirituality is by nature relational and can involve an individual’s relationship with God, nature, ideas or beliefs, and other individuals. In contrast, religion is a particular set of beliefs and practices shared by a larger community which describes or explains their relationship with the transcendent. An important consequence of this distinction is that many individuals are spiritual, but not necessarily religious, while others define their spirituality through religious beliefs. For the purpose of this article, the following definition for

Background: Spirituality is an important, yet often overlooked, component of personal well-being. The purpose of this study was to assess whether spirituality plays an important role in the well-being of US plastic surgeons and residents, and whether spirituality is viewed as an important component of patient care.

Methods: An anonymous and voluntary email survey was distributed to 3375 members of ASPS during the months of April through June of 2020. The survey distribution included 2230 active members of ASPS and 1149 resident members, all who practice or train within the United States. The survey consisted of 18 multiple-choice questions with answer choices based on a descriptive five-point Likert scale and ranking by priority. Statistical analysis of the results was performed using StataCorp 2019 software.

Results: A total of 431 completed surveys were received for a response rate of 12.7%. The majority of participants (70%) reported that personal spiritual beliefs and faith contribute positively to emotional well-being. In total, 65% agreed or strongly agreed that their spiritual beliefs provide a healthy framework for handling conflict, suffering, and loss. More than half (51%) reported that as a result of the COVID-19 global pandemic, their spiritual beliefs and practices have provided increased support and guidance.

Conclusions: Spirituality is an important component of maintaining wellness for plastic surgeons, and spirituality is recognized by plastic surgeons as an important aspect of the healing process for patients. Efforts should be made to promote spiritual health among the surgical community both during training and in practice. (Plast Reconstr Surg Glob Open 2021;9:e3853; doi: 10.1097/GOX.0000000000003853; Published online 7 October 2021.)
The purpose of this study was to assess whether spirituality plays an important role in the well-being of US plastic surgeons and residents, and whether spirituality is viewed as an important component of patient care. With our mission being to “restore and make whole,” consideration should be given to those aspects of healing that involve the spiritual nature, thereby helping patients heal in a more complete manner.
Table 1. Survey Questions

1. Which gender identity do you most identify as?
2. What category best represents your age?
3. How many years have you been in practice?
4. Please select the geographic location in which you currently practice.
5. My personal spiritual beliefs have an impact on how I take care of patients clinically.
6. The spiritual beliefs of my patients have a significant impact on their ability to heal and recover from surgery.
7. It is appropriate to discuss my spiritual beliefs with a patient or participate in praying with a patient.
8. I routinely consider my patient’s spiritual beliefs when providing care, and feel comfortable discussing spiritual beliefs with patients.
9. Attending religious services is an important and regular activity for me.
10. I regularly spend time praying or meditating, and reading religious scriptures/literature.
11. I intentionally make an effort to conform my life to the teachings of my spiritual beliefs and religious faith.
12. My spiritual beliefs provide a healthy framework for handling conflict, suffering, and loss.
13. My personal spiritual beliefs contribute positively to my emotional well-being.
14. I spend time reflecting on things I can improve about myself, my life, and my professional role.
15. Feeling compassion for others is a regular part of how I work.
16. As a result of the COVID-19 global pandemic, my spiritual beliefs and practices have provided me increased support and guidance.
17. Which of the following is the highest priority in your life now (most valued)?
18. Rank in order or priority which of the following you consider the most effective in helping you overcome periods of emotional exhaustion and burnout.

Northwest (18.6%) and West (19.4%). While the majority of participants under the age of 35 ranked “family and relationships” as their highest priority, this age group was more likely to rank “education and career” as their highest priority (18.6%) compared with those in the 35–54 (3.6%) and 55 and over groups (0%). Conversely, those under 35 were less likely to rank “spiritual health and faith in god” as their highest priority compared with the older age groups (P = 0.001). A statistically significant association was observed between years in practice and choice of highest priority (P = 0.001). Participants in practice 25 years or more were more likely to choose “spiritual health and faith in God” as their highest priority (21%) compared with those in practice for 10–24 years (14%) and those in practice for less than 10 years (7.7%; Fig. 3). No statistically significant association was found between gender identity and choice of highest priority.

Table 2. Demographic Data

| Gender identity | n (%) |
|-----------------|-------|
| Men             | 286 (66.4) |
| Women           | 141 (32.7) |
| Other           | 4 (0.9) |

| Age group       | n (%) |
|-----------------|-------|
| Under 35        | 118 (27.4) |
| 35–54           | 169 (39.2) |
| 55 and over     | 145 (33.2) |

| Years in practice | n (%) |
|-------------------|-------|
| <10               | 209 (48.5) |
| 10–24             | 121 (28.1) |
| >25               | 100 (23.2) |

| Geographic Region         | Responses | Percentile (%) |
|---------------------------|-----------|----------------|
| New England, Middle Atlantic (Northeast) | 86        | 20              |
| CT, ME, MA, NH, RI, VT, NJ, NY, PA       |           |                 |
| East North Central, West North Central (Midwest) | 104    | 24              |
| IL, IN, MI, OH, WI, IA, KS, MN, MO, NE, ND, SD |         |                 |
| East South Central, West South Central, South Atlantic (South) | 147    | 34              |
| AL, KY, MS, TN, AR, LA, OK, TX, DE, DC, FL, GA, MD, NC, SC, VA, WV |         |                 |
| Mountain, Pacific (West) | 93        | 22              |
| AZ, CO, ID, MT, NV, NM, UT, WY, AK, CA, HI, OR, WA |         |                 |
When asked what strategy was the most effective in overcoming exhaustion and burnout, participants ranked “relationships with family and friends,” “exercise and physical activity,” and “vacation (time away from work)” the highest, with reliance upon a “spiritual belief system (faith)” and “meditation and reflection” being the least effective (Fig. 5). The overwhelming majority reported spending time in self-reflection to improve aspects of their personal and professional lives (93% agreed or strongly agreed). Similarly, the majority of participants (97%) reported that feeling compassion for others is a regular part of their work. More than half (51%) reported that as a result of the COVID-19 global pandemic, their spiritual beliefs and practices have provided increased support and guidance.

Which of the following is the highest priority in your life now? (most valued)

Fig. 1. Demonstration of which categories were prioritized most by respondents.

Fig. 2. Geographic region vs highest priority choice ($P = 0.002$).
Which of the following is the highest priority in your life now? (most valued)

| Less than 10 years | 10 – 24 years | 25 years or more |
|--------------------|---------------|------------------|
| Financial security | 5.3           | 8.0              | 8.0              |
| Education & career | 12.9          | 0.8              | 19.0             |
| Family & relationships | 8.6        | 14.9             | 19.0             |
| Health | 62.2          | 58.7             | 52.0             |
| Financial security | 3.3           | 14.0             | 21.0             |
| Education & career | 7.7           | 0.8              | 21.0             |

Fig. 3. Years in practice vs highest priority choice.

My personal spiritual beliefs contribute positively to my emotional well-being.

| Under 35 | 35 – 54 | 55 and over |
|----------|---------|-------------|
| Strongly disagree | 13.6 | 5.6 | 49.0 |
| Disagree | 8.5     | 6.3 |       |
| Neutral | 17.8    | 9.8 |       |
| Agree | 31.4    | 36.7 |       |
| Strongly agree | 28.8 | 32.5 |       |

Fig. 4. Impact of spiritual beliefs on well-being by age group.
DISCUSSION

Spirituality is an important component of wellness for plastic surgeons and residents, with the majority of participants reporting that spiritual beliefs contribute positively to their emotional well-being. Approximately two-thirds of participants agreed or strongly agreed their spiritual beliefs provide a healthy framework for handling conflict, suffering, and loss. Interestingly, when asked specifically about religious practices, the results differ somewhat, with only 38% reporting that attending religious services is a priority. Similarly, only 40% reported regular participation in prayer, meditation, and reading religious texts or scriptures. These results are consistent with known national trends of individuals claiming to be spiritual but not necessarily religious. Geographical differences were apparent in our data suggesting the significance of religion and spirituality vary across the country. Regarding the religious characteristics of US physicians compared with the general population, previous data showed that physicians are more likely to consider themselves spiritual but not religious. Another study demonstrating the importance of religious and spiritual beliefs among physicians was published in 2017 from the Mayo Clinic, showing 65% claimed to believe in God and 63% described religion as important in their life. However, only 53% of surgeons who participated reported that they pray daily.

The distinction between spirituality and religious belief systems is important. Based on the previously mentioned definition, spirituality involves the transcendent, but also includes the search for meaning and purpose, and the experience of relationships. These components of spirituality are directly related to the wellness strategies reported most important to plastic surgeons in our study. The most effective strategy for handling emotional exhaustion and preventing burnout was cultivating relationships with family and friends. Although the specific strategy of relying upon a spiritual belief system was ranked less important, the assumption could be made that plastic surgeons value intrinsic aspects of spirituality (relationships and meaning), rather than a defined spiritual belief system that relates more closely to religion. Data from the American College of Surgeons survey revealed the top three strategies employed for maintaining wellness and avoiding burnout were finding meaning in work, having protected time for family, friends, and relationships, and focusing on what is most important in life. Similar strategies at preventing burnout are described for plastic surgeons by Khansa and Janis, focusing on physical and intellectual health, maintaining autonomy, and finding purpose in work.

The strategies described for improving psychological health are inherently linked to one’s spirituality—that is, finding meaning in one’s work and developing relationships with friends and family, and these were protective of wellness and treated or prevented burnout. Our survey data show that the majority of plastic surgeons value time spent with friends and family as their number one priority in their life, and time spent with family and friends was most often chosen as the most effective thing in helping them overcome burnout and emotional exhaustion. Respondents largely indicated that they agreed to the statements that their personal spiritual beliefs contributed positively to their emotional well-being. This congruency between evidence-based strategies to decrease burnout...
and our survey results indicates that developing a culture that allows for spirituality, personal growth, and time for family and friendships is paramount in developing a workforce of healthy surgeons.

With regard to spirituality and patient care, most plastic surgeons agreed their personal spiritual beliefs impact how they provide clinical care, and that spirituality plays an important role in the healing and recovery process of patients. This is consistent with literature from other medical specialties demonstrating that spiritual well-being is associated with improved clinical outcomes. Garimella et al. reported on recent data showing how spiritual well-being was associated with better rehabilitation outcomes and life satisfaction among traumatic brain injury patients, and the positive correlation between spirituality and quality of life in breast cancer and prostate cancer survivors. A more detailed account of the existing literature supporting the role of spirituality and health outcomes is beyond the scope of this article, but the authors would recommend the Handbook of Religion and Health written by Dr. Harold Koenig and a review article published in 2015 by Dr. Koenig as well. An important finding is that although plastic surgeons agree spirituality is a significant aspect of healing, most do not feel comfortable discussing their own spiritual beliefs with patients or praying with patients. Reasons for this finding may include the desire not to proselytize or impose beliefs onto another individual when a power discrepancy exists such as the surgeon–patient relationship. Surprisingly, a large portion of participants (42%) report routinely considering a patient’s spiritual beliefs when providing care and feel comfortable discussing those beliefs. However, 26% remained neutral and 32% of participants reported they did not routinely consider patients’ spiritual needs. Many reasons may exist why surgeons do not routinely address spiritual issues when providing care—for example, inadequate training, lack of time and expertise, and feeling uncomfortable. One practical approach is for the surgeon to consider recommending a referral to the chaplaincy services offered at each institution. Table 4 outlines the various responsibilities of chaplains.

Spiritual health has been recognized across the world as an important component of wellness and quality of life. The World Health Organization Quality of Life Group has developed an international definition for quality of life as “an individual’s perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person’s physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment.” The Joint Commission on Accreditation of Healthcare Organizations requires addressing the spiritual and religious needs of patients. Similarly, the American College of Surgeons’ Code of Professional Conduct outlines the specific responsibility of each surgeon to “acknowledge patients’ psychological, social, cultural, and spiritual needs.”

Over the past several decades, US medical schools have recognized the importance of this concept and have implemented spirituality courses into their academic curricula, an effort initially started by Dr. Christina Puchalski, Director of the George Washington University School of Medicine Institute for Spirituality and Health. Given the findings of this study and other supporting literature, the significance of maintaining spiritual health is apparent, especially as issues related to spirituality are so important for surgeon wellness and avoiding burnout. In fact, Dr. Puchalski describes physician burnout as “spiritual fatigue,” which communicates the loss of purpose, meaning, and relationships that surgeons prioritize and value. A search for purpose and connection through relationships is fundamental to a satisfying career in medicine, and individuals are intrinsically motivated to find purpose and connection.

Limitations to our data include the low response rate of 12.7%, although this is above the average response rate of official ASPS surveys, which is 11%. One reason for this may be survey fatigue, as the number of email surveys has certainly increased over the years. Also, many potential respondents may not have felt comfortable participating in the survey due to the more personal nature of the subject matter, whereas others may have been more likely to participate because of an inherent interest in spirituality. There is the possibility of sampling bias because not all active members and resident-members of ASPS were contacted, but only a subset of the group, although the subgroup was specifically constructed by ASPS to be representative of the whole. Other potential biases that might affect data integrity with surveys include “extreme bias” (choosing the extreme options in a Likert scale question model) and “acquiescence bias” (where respondents choose answers based on what they think the reviewers want to hear). Some bias is possible due to geographic differences in spiritual/religious practices and beliefs.

**Table 4. Indication and Role of the Chaplain**

| Role of the Chaplain                  | Indications for Chaplain Referral                             |
|--------------------------------------|---------------------------------------------------------------|
| Spiritual/emotional support          | Patient isolation, fear, loneliness                           |
| Prayer                               | Unmet spiritual needs                                         |
| Communication                        | Complex family dynamics                                       |
| Presence/listening                   | Lack of social support                                        |
| Negotiate complex family dynamics    | Presenting difficult diagnosis, bad news                      |
| Grief and bereavement counseling     | Grieving or emotional distress                                |

**CONCLUSIONS**

The essence of plastic surgery can be summarized in Tagliacozzi’s famous words, “We restore, rebuild, and make whole those parts which nature hath given, but which fortune has taken away.” The healing process involves the whole person, and the surgeon–patient relationship by necessity involves the spiritual experience of both individuals. As plastic surgeons, we must continue to rebuild the whole person, “Not so much that it may delight the eye, but that it might buoy up the spirit, and help the mind of the afflicted.”
In conclusion, spirituality is an important component of maintaining wellness for plastic surgeons, and spirituality is recognized by plastic surgeons as an important aspect of the healing process for patients. Efforts should be made to promote spiritual health among the surgical community both during training and in practice. It is hoped that such efforts will lead to less burnout and overall better patient care.

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