

Religiosity, Spirituality, Healthcare, and Aphasia Rehabilitation

Jacqueline S. Laures-Gore, Ph.D.¹ and Hannah Griffey, M.S.¹

ABSTRACT

Awareness of the intersectionality of a person's religious and spiritual belief system with their mental and physical health is slowly being elevated within the Western healthcare system. There are many opportunities for better understanding and incorporation of religious and spiritual beliefs into aphasia rehabilitation. To extend the recognition of religion and spirituality's importance in healthcare to persons living with post-stroke aphasia while emphasizing the diversity of beliefs, the current article seeks to provide a brief overview of the global religions; explain the intersection of religion, spirituality, and health; review the existing literature in the area of aphasia and religion, spirituality, and spiritual care; discuss the clinical importance and implications of religion and spirituality; and finally, lay out a forward view of the direction this area of exploration may take within aphasiology.

KEYWORDS: aphasia, spirituality, religion, coping

Learning Outcomes: As a result of this activity, the reader will be able to:

- Describe the diverse religious and spiritual belief systems those working with persons with aphasia may encounter.
- Explain the intersection of religion, spirituality, and health within the context of aphasia.
- Discuss the clinical importance and implications of religion and spirituality.

Awareness of the intersectionality of a person's religious and spiritual belief system with their mental and physical health is slowly being elevated within the Western healthcare system. Acknowledgement of the importance of

religion and spirituality in health has been witnessed for thousands of years in practices such as Traditional Chinese Medicine, Ayurvedic Medicine, and Indigenous Medicines (Kessler et al., 2013; Ortiz et al, 2008; Shi &

¹Department of Communication Sciences and Disorders, Georgia State University, Atlanta, Georgia.

Address for correspondence: Jacqueline Laures-Gore, Ph.D., Department of Communication Sciences and Disorders, Georgia State University, PO Box 3979, Atlanta, GA 30303 (e-mail: jlaures@gsu.edu).

Intersectionality in Aphasia Services for Ethnosexually Diverse Adult Populations Guest Editors, José G.

Centeno, Ph.D., CCC-SLP and Jacqueline S. Laures-Gore, Ph.D., CCC-SLP

Semin Speech Lang 2024;45:24–45. © 2023. Thieme. All rights reserved. Thieme Medical Publishers, Inc., 333 Seventh Avenue, 18th Floor, New York, NY 10001, USA DOI: <https://doi.org/10.1055/s-0043-1776308>. ISSN 0734-0478.

Zhang, 2012). Within the contemporary Western medicine, there was a secularization of healthcare in the mid-20th century (Koenig, 2000); however, more recently there is a growing recognition that a holistic approach to health involving the trifecta of mind, body, and spirit is critical in treating humans across a wide array of illnesses (Karff, 2009). This is particularly relevant in the area of aphasia rehabilitation as there is a growing literature exploring a more holistic approach to treating aphasia (e.g., Marshall & Mohapatra, 2017) and an expanding literature recognizing the cultural and linguistic diversity of the people that we serve (Centeno et al., 2020; Larkman et al., 2023; Mellahn et al., 2023; Nguy et al., 2022). However, the religious and spiritual aspects of this holistic approach remain underexplored and relatively ignored. A greater understanding of the effect of all religions and spirituality on health is needed in the field of aphasiology in order to improve clinical services to all individuals affected by aphasia who hold diverse religious and spiritual beliefs. The need to better understand and provide appropriate clinical services is included within the American Speech-Language-Hearing Association's (ASHA's) Issue in Ethics statement (2017) which outlines for speech-language pathologists the requirement for providing ethically appropriate services to all populations while recognizing their own and clients' backgrounds. The statement notes religion as one of several factors to be considered within culture and cultural diversity. Honoring the religious and spiritual diversity of the people served by speech-language pathologists is a critical piece of providing competent, individualized, person-centered care.

Religion and spirituality are terms commonly used interchangeably to represent similar, albeit different, constructs (Ammerman, 2013). This lexical overlap reveals the complexity of the phenomenon each term struggles to describe—a complexity potentially tied to one's individual experiences and cultural background. Here we attempt to distinguish the two terms following Hill et al.'s (2000) suggestion that religion and spirituality are distinctly different, while acknowledging the many definitions of religion and spirituality existing in the literature, mostly from a Western perspective. Fur-

ther support for differentiating religion and spirituality arises from a survey conducted in the United States revealing that 27% of adults in the United States consider themselves as spiritual but not religious, while 48% report being both religious and spiritual (Lipka & Gecewicz, 2017).

The term religion was established as a modern, Western concept (Fitzgerald, 2000) defined as a multi-dimensional institution with focus on a divine object, salvation or ultimate good-based goals, and provides function or meaning to life (Byrne, 1988). By predominant definition today (Hill et al., 2000), religion includes any "adherence to a belief system and practices associated with a tradition in which there is agreement about what is believed and practiced" (Worthington et al., 2011, p. 205). Noting the complexity of defining spirituality, Swinton (2010) approaches a definition from multiple interactive perspectives (e.g., generic [human universal without specific traditions], biological [serves as biological and evolutionary purposes], and religious [transcendence, projection, and behavior]). Similarly, Puchalski et al. (2009) described spirituality as a search for meaning and purpose, as well as connectedness to others, self, nature, and the significant or sacred, interacting with secular, philosophical, religious, and cultural beliefs. Others suggest that spirituality is an individual's more general search for closeness to the sacred (Davis, Hook, & Worthington, 2008; Hill et al., 2000) with sacred being defined as feeling of connectedness to God, nature, humanity, or the transcendent (Westbrook et al., 2018). In this sense spirituality can encompass religious spirituality, feelings of those who are spiritual but not religious (Diener et al., 2011), and any aspect of sacred meaning within one's life (Westbrook et al., 2018). See MacKenzie and Mumby (2022) and McSherry and Cash (2004) for further discussion of defining spirituality in the context of healthcare. While recognizing the diversity of interpretation of the terms religion and spirituality in culturally, linguistically, and geographically diverse individuals, within the current article we do attempt to separate the two constructs by using both terms throughout the article. Notably, much of the literature cited within this article may use different definitions

of religion and spirituality further highlighting the complexity of the topic of religion and spirituality.

To extend the recognition of religion and spirituality's importance in healthcare to persons living with post-stroke aphasia while emphasizing the diversity of beliefs, the current article seeks to provide a brief overview of global religions to highlight the diverse religious belief systems those working with persons with aphasia may encounter; explain the intersection of religion, spirituality, and health; review the existing literature in the area of aphasia and religion, spirituality, and spiritual care; discuss the clinical importance and implications of religion and spirituality; and finally, lay out a forward view of the direction this area for exploration may take within aphasiology.

GLOBAL RELIGIONS

Within our pluralistic world, more than 85% of people (Hackett et al., 2015) identify with a religion. Of the world's population, 31.2% identify as Christians, 24.1% as Muslims, 16% as unaffiliated, 15.1% as Hindus, 6.9% as Buddhists, 5.7% as followers of Indigenous religions (e.g., African Indigenous religions, Chinese Indigenous religions, Native American religions, and Australian Aboriginal spiritual frameworks), 0.8% as followers of other religions (Bahai's, Jains, Sikhs, Shintoists, Taoists, followers of Tenrikyo, Wiccans, Zoroastrians), and 0.2% as Jewish (Hackett et al., 2015). As mentioned earlier, each of these religions has traditions that connote beliefs in some form of divinity, goals for salvation or ultimate good, and provide meaning to life. To aid speech-language pathologists in recognizing the diversity of the religious traditions the people they serve may possess, a brief description of these religions are provided below.

Abrahamic religions, including Judaism, Christianity, and Islam, all originated in the Middle East as monotheistic and prophetic in nature (Silverstein et al., 2015). The doctrine of these religions includes a belief that God gives direction to people through prophets (Vitkovic, 2018). Judaism traces its origins to the prophet Abraham, the father of the Jewish, or covenant, people (Goldenberg, 2007). Contemporary

Jews refer to Judaism to define both a secular ethnicity and religion, with the latter focusing on the relation between a loving God and His chosen people (Wylen, 2000). The purpose of life is found in serving God through the study of the Torah, which provides salvation from sin (Wylen, 2000). Within Christianity, salvation from sin comes through the founder Jesus Christ, who called himself the Savior or Messiah (McGrath, 2006). He was a Jewish man (Sonderegger, 2010) proclaimed to be the Son of God (Bloesch, 2005) on Earth to fulfill Mosaic law (Adeyemi, 2006) and perform the atonement for redemption from sin by giving up his life through crucifixion and being resurrected (Holland, 1992). Teachings of Christianity include the process to overcome the sinful, natural state of man and provide meaning to life through an established method to return to live with God again (Bilezikian, 2009). Within Islam, the life and teachings of Jesus Christ are viewed as prophetic but not godly counsel (Akyol, 2017). Muhammad is the founding prophet of Islam, born 570 A.D., who was visited by the angel Gabriel many times over the course of 20 years (Azzam & Gouverneur, 1985). The messages given by the angel Gabriel were teachings that came directly from Allah (God) and were recorded in the Quran (Wheeler, 2002). Muslims adhere to six articles of faith, including belief in God, eternal life after death, angels, scripture, prophets, and that God has a plan (Beverluis, 2011).

Eastern religions, such as Hinduism, are viewed as more than a religion but also a culture or Purushartha-way of life (Rajasakran et al., 2014). There are four Purusharthas or goals of Hinduism, including dharma (virtue), artha (material wealth), moksha (transcendence), and kama (pleasure; Salagame, 2013, p. 379). Hindus rely on the teachings in sacred scriptures called Shruti "that which is heard," which are canonical revelations like the Bhagavad Gita and Vedas, and Smriti "that which is remembered," which includes humanistic teachings for guidance on worship, daily activities, and rituals (Britannica, 2015). Buddhism is an Eastern religion with a known founder named Siddhartha, who originally practiced Hinduism (Keller, 2012). After observing the four sights of old age, illness, death, and an ascetic, and gaining enlightenment

through asceticism, Siddhartha became Buddha (one who is fully awake; Keller, 2012) and shared his pathway to enlightenment with his followers. Buddhists follow the Four Noble Truths, which explain the disease of suffering in life, the cause of suffering as desire, the cure of suffering through desire cessation, and the medicine, which is the path to cease desire (Gethin, 2010). Another Eastern religion is Confucianism, which is both a system of thought and behavior that provides traditions, philosophy, religion, and a way of life for its followers seeking to find harmony (Yao & Yao, 2000).

There are many other established religions that combine philosophy, tradition, and spiritual beliefs. Within Chinese culture, oracle bone inscriptions from 4000 years ago provide evidence of early Indigenous religiosity that included ancestral cult, divination, sacrifice, priesthood, and shamanism (Ching, 2016). Values include veneration of spirits and ancestors, loyalty, benevolence, wisdom, and honesty. It is also common to see worship of deities, fortune-telling, feng-shui, the use of charms, and other adopted values from neighboring religions (Wong, 2011). African Indigenous religions similarly include ancestral veneration (Ching, 2016). They are diverse, but share a common emphasis with healing (Shoko, 2016). Additionally, African Indigenous religions include an emphasis on prosperity, longevity, vitality, and fertility, while also providing explanations (i.e., sickness is due to imbalances in relationships with spirits; Olupona, 2014). Traditions are embedded in oral myths, rituals, folktales, proverbs, paintings, sculptures, music, and dance (Aderibigbe & Medine, 2015). Native American Indigenous religions vary by nation, tribe, and are commonly passed down through oral histories that rely heavily on experiential learning and interaction with land and creatures (Martin, 2001). Key concepts include health, harmony, virtues, wisdom, and beauty (Gill, 2002). Native American religiosity was persecuted and denied during early colonialism (Irwin, 1996). Each tribe had its own religion where elders taught children through stories and ceremonies. Despite the support for and resurgence of Native American culture, many of these religious traditions have been lost (Reyhner, 2006).

Diverse beliefs across Abrahamic, Eastern, and Indigenous religions provide meaning to life and greatly influence the day-to-day life of adherents. Understanding the relation and impact of one's religious beliefs on health is quite complicated given the number of religions globally and the different religious practices each contain. Religion can also be a source of great peace, comfort, and direction during turbulent times in life such as illness or injury. Integrating culturally sensitive care can lead to more holistic healthcare approaches. By acknowledging the significance of religious beliefs, healthcare providers can create supportive environments for patients and the intersection of their religion, spirituality, and health.

THE INTERSECTION OF RELIGION, SPIRITUALITY, AND HEALTH

These many global religions combined with their related practices are paths for engagement in a community and have demonstrated effects on physical and mental health, with psychological and social factors believed to be routes for these effects (Koenig & Koenig, 2008). Harold Koenig is noted as a trailblazer in the intersection of religion, spiritual beliefs, and health (Aten & Schenck, 2007), taking a once fringe topic and bringing it to a more mainstream awareness (e.g., Koenig, 2000; Koenig et al., 2012); he reports that an explosion of studies in the area of health and religion and spirituality has occurred since the beginning of this century (Koenig, 2012). An understanding of this topic has been pursued by a wide array of disciplines (e.g., economics, law, psychiatry, nursing, pastoral care) each bringing unique backgrounds to its study, thus resulting in a scattered dissemination of information (Koenig, 2012). A combination of multiple disciplines possessing esoteric approaches and differing dissemination outlets along with consideration of global social, cultural, and economic factors is challenging when attempting to concisely summarize current knowledge in this area. Similarly, methodological variables such as defining terms and different approaches to gathering information about religion or spirituality, as well as under-representation of racially, ethnically, or other marginalized groups, have influenced

contemporary knowledge of these constructs and their relation to health. However, with these caveats in mind overall, numerous studies within the area of physical health show that religiosity, or one's adherence to religious practices, beliefs, and principles (Ellis et al., 2019), may be a protective agent for increased longevity (Chida et al., 2009; Ebert et al., 2020; Hummer et al., 1999; Lucchetti et al., 2011; Powell et al., 2003; Wallace et al., 2019). For example, Li et al. (2016) found in a sample of 74,534 women in the United States identifying with various religious backgrounds that those attending a religious service more than once per week (one aspect of religiosity) have lower levels of mortality. Associating religiosity with mortality and physical health has been studied across different cultures, geographies, and sex (Hill et al., 2020; Nicholson et al., 2009; Oman et al., 2002; Seybold & Hill, 2001; Zimmer et al., 2020). One's religiosity may also be a potent variable (with mixed negative and positive associations) in diseases related to mortality, such as cancer (e.g., Almaraz et al., 2022; Elkhalloufi et al., 2022; Fradelos et al., 2018; Kugbey et al., 2020; Moorman et al., 2019; Thuné-Boyle et al., 2006; Thygesen et al., 2012; Van Ness et al., 2003) and cardiovascular disease (Brewer et al., 2022; Elhag et al., 2022; Seybold & Hill, 2001; Svensson et al., 2020). Factors associated with religiosity that may negatively affect mortality include delaying diagnosis of cancer (Moorman et al., 2019) and a reliance on an external locus of control (believing God controls health; Kinney et al., 2002), whereas the context of religious service attendance may have a positive effect on mortality (Bruce et al., 2022). Relatedly, one religious practice, fasting during Ramadan, has been shown to improve some aspects of the cardiovascular system (lipid profile, oxidative stress; Ahmed et al., 2022; Al-Shafei, 2014; Naz et al., 2022), although fasting is not recommended for all individuals due to some health concerns (Malinowski et al., 2019). Additionally, Stavrova (2015) and Ebert et al. (2020) noted that any health and mortality benefits of religiosity across religions and cultures are limited to regions where religiosity is considered common and socially desirable; therefore, when considering the effects of reli-

giosity on aspects of health, one should consider the acceptance of practices in their living context. Contextual acceptance of religious practices is an important consideration in the area of intersectionality and cultural diversity as it may affect some aspects of health.

Religiosity and spirituality are noted to have protective effects on multiple aspects of mental health in general and some clinical populations. A number of studies have explored the relation between religiosity and spirituality with life satisfaction and overall well-being across cultures, religions, and countries (Jung & Ellison, 2022; Kim-Prieto & Miller, 2018; Okulicz-Kozaryn, 2010; Sholihin et al., 2022). For example, across the Jewish and Christian religions, Vishkin et al. (2019) found a positive correlation between religiosity and life satisfaction. In a review of studies investigating well-being, Koenig (2012) reported that 79% of studies found a positive relation between well-being and religiosity and spirituality. Although there are a large number of studies indicating the benefits of religiosity and spirituality on well-being, others suggest negligible or small effects (Diener & Clifton, 2002; Garsen et al., 2021; Okulicz-Kozarn, 2010). Several mediators of these findings have been suggested (Fiori et al., 2006; Greene & Yoon, 2004). For instance, Fiori et al. (2006) studied locus of control [external (rewards determined by fate, luck, etc...) and internal (outcomes rely on one's choices and actions)] and its relation with life satisfaction and religiosity in the context of age, gender, and race in a sample from the United States. Differences in locus of control as a mediator for the relation between religiosity and life satisfaction were found between older and younger adults, as well as male and female participants, but no differences in race were discovered. Furthermore, Greene and Yoon (2004) studied the influence of socioeconomic variables on life satisfaction as it relates to religiosity in a European sample finding that income inequality reduces perceived life satisfaction. Additionally, Okulicz-Kozaryn (2010) studied a sample from 79 different countries and found that religiosity with high social capital (e.g., value of social networks) positively predicts life satisfaction. These studies highlight the need to consider multiple variables

when determining the role of religiosity and spirituality in the context of health.

Almost 4% of the global population has a diagnosed anxiety disorder and 4.4% has a depression diagnosis (WHO, 2017), with indication that these rates significantly or modestly increased as a result of the global pandemic (Santomauro et al., 2021; Kessler et al., 2022). These large numbers present an urgency to better understand protective variables that can mitigate the occurrence of anxiety and depression. In the vast literature related to religiosity, spirituality, anxiety, and depression, most reports suggest that religiosity and spirituality offer protection against these mood disorders (Baetz et al., 2004; Baetz et al., 2006; Hope et al., 2017; Koenig, 2012; Marques et al., 2022; Moreira-Almeida et al., 2006; Scott et al., 2022; Steiner et al., 2017). However, there is also evidence that negative or no associations exist (e.g., Lupo & Strous, 2011; Storch et al., 2002). Relatedly, suicide, which is in opposition to most faith traditions, may be inversely related to religiosity or more religious geographic regions (Amit et al., 2014; Koenig et al., 2012; Garrouette et al., 2003; Rasic et al., 2009) or unrelated to one another (Eshun, 2003). Substance addiction, an additional mental health disease (Koenig et al., 2020; Volkow et al., 2016), has also been studied as it relates to religiosity and spirituality. In a 2008 systematic review on this topic, Chitwood et al. (2008) found that across countries higher levels of religiosity and spirituality are related to reduced substance use, although there does appear to be sampling bias with college students and methodological issues across studies. In more recent work, Mak (2019) showed a positive association between church attendance and substance non-use. Similarly, a meta-analysis of studies from 2008 to 2018 showed religiosity was a protective variable in reducing alcohol use (Russell et al., 2020).

Given that there are many reports of religion and spirituality acting as protective factors in the broad area of health (although we recognize the conflicting evidence), there have been several proposals describing the mechanism by which religiosity and spirituality may exert their effects on physical and mental health. Koenig (2012) offered perhaps the

most comprehensive overview explaining how religiosity and spirituality may have physical and mental health effects. Koenig (2012) provided the following as potential mechanisms for religion and spirituality's mental health effects: (1) provides coping resources such as strongly held beliefs; (2) gives meaning to challenging life situations; (3) provides purpose to life; (4) gives a sense of control over life events; (5) reduces existential angst; and (6) provides a doctrine about how to live life and the treatment of others (compassion, love). Overall, he indicates that the mechanism may be a buffering of stress and elevation of positive emotions which in turn promotes better mental health. However, he does note that religion can also be used to promote negative emotions (e.g., exclusion of others) which will have an inverse relation with mental health.

There is strong evidence that the mind influences many human biological systems including our immune system, cardiovascular activity, endocrine function, and brain health (Babayan et al., 2019). Thus, religion and spirituality mechanisms influencing mental health will have a cascade effect on physical health. For instance, research suggests that some individuals who rate higher on religiosity engage in less smoking behavior, less sexual promiscuity, and have better diet/exercise habits (Koenig, 2012; Lalayants et al., 2020; Whitehead & Bergeman, 2020); avoiding these behaviors positively affect physical health. Considering one aspect of the mechanism of religion and spirituality as a buffer of stress, the connection between stress and disease is well-established. Both acute and chronic stress responses are related to the two biological arms of the stress response (hypothalamic–pituitary–adrenal axis and the sympathetic–adrenal–medullary axis) which lay the foundational relation between stress and disease. For instance, chronic stress engages these systems and affects the immune system by altering lymphocytes (the main types of immune cells) and can be further broken down into T and B cells; T cells produce cytokines and B cells produce antibodies (Seiler et al., 2020). These cells collaborate with other cells to create a balance that supports the immune system. An imbalance will result in a suppressed immune system which then allows

viruses, bacteria, etc, to propagate within the human body resulting in disease (Seiler et al., 2020). Vascular and endocrine diseases are also linked to chronic stress (Hahad et al., 2019). Therefore, religion and spirituality could indirectly protect against multiple pathophysiologicals if they are indeed perceived as stress buffers in an individual.

Stroke, Religiosity, and Spirituality

A more focused look at one aspect of health, stroke recovery, allows us to understand the contribution of religion and spirituality within the smaller context of stroke rehabilitation. Keeping with the idea that religiosity and spirituality act as a coping resource, the summary will be limited to how religion and spirituality may be relied upon as a coping resource (e.g., religious coping; Zinnbauer et al., 1997) during the rehabilitative process. In an earlier study exploring religiosity and spirituality in post-stroke recovery, Giaquinto et al. (2007) examined the relation between these variables and emotional distress in 162 stroke survivors in Italy. Findings suggest that religiosity is associated with lower levels of distress, unless the stroke was believed to be punitive. Relatedly, Johnstone et al. (2008) found spiritual beliefs in a higher power are positively associated with better mental health. Similarly, Lamb et al. (2008) found in their systematic review that for older adults (over 65 years) who experienced stroke and reported spiritual beliefs, connection to others and spiritual connection were potent variables in stroke recovery. Along with recognizing individual responsibility and the need to follow medical advice, Moorley et al. (2016) report in their sample of seven African Caribbean women that belief in God was a positive contributor to their post-stroke health and recovery. For those in which religious practices were altered (e.g., church attendance), modifications were made such as turning to personal prayer or reading prayer books. Conversely, within a sample of 40 female stroke survivors who identified as Muslim, religiosity was not associated with life satisfaction (Omu et al., 2014). Prayer has been noted as an important aspect of religious coping (Thomas & Barbato, 2020) and for some reli-

gious faiths considered a therapeutic exercise (Osama & Malik, 2019). Robinson-Smith (2002) examined prayer in eight stroke survivors and found prayers were focused on regaining skills and increasing confidence, and, overall, contributed to relieving the stroke burden and lessening the crisis of stroke. Bays (2001) found that faith in God provided hope to persons post-stroke during recovery. Chow and Nelson-Becker (2010) found that spiritual transformation as a tool for resilience was important in post-stroke recovery in a sample of females in Hong Kong. Skolarus et al. (2012) suggested that spirituality may be a mediator of increased mortality in stroke survivors. However, Morgenstern et al. (2011) did not find any relation between spirituality and stroke recovery. Although these studies utilized differing techniques in gathering information (semistructured interviews, rating scales) across varied time post onset of stroke, religions, spiritual practices, and countries, the majority of findings suggest that religiosity and spirituality may be helpful for mental health aspects of stroke recovery. Interestingly, the two studies not finding an association between religiosity, spirituality, and stroke recovery (Omu et al., 2014; Morgenstern et al., 2011) both utilized a quantitative approach to gathering information about religiosity and spirituality. Methodological consistencies across studies including use of specific rating scales and infusion of qualitative approaches will further advance our knowledge of the contribution of religiosity and spirituality to stroke recovery.

Overall, the effects of religiosity play influential roles in physical health, longevity, disease state, mental health, addiction, immune system function, and human biology. Many of these topics arise in stroke care and rehabilitation, and may be important variables to consider. It is for these reasons that the intersectionality of religion, spirituality, and health becomes poignantly relevant within aphasia rehabilitation.

APHASIA REHABILITATION, RELIGIOSITY, AND SPIRITUALITY

In contrast to Koenig's (2012) observation that there was a seismic growth of published studies in the area of religiosity, spirituality, and health

since the turn of the century, the more discrete area of post-stroke aphasia rehabilitation is experiencing a slower paced growth. As noted by Sherratt and Worrall (2020) in their review of posttraumatic growth in persons with aphasia (which includes spiritual change), there is very little reference to spirituality in the aphasia literature. Additionally, exclusion of persons with aphasia or strict auditory comprehension inclusion criterion in post-stroke recovery, religion, and spirituality studies has challenged the growth of our knowledge in the area of aphasia and religiosity and spirituality (Bays, 2001; Morgenstern & Kissela, 2015). Given that 30% of stroke survivors live with aphasia (Grönberg et al., 2022) and reports suggesting over half of adults identify with religious and/or spiritual beliefs (Smith et al., 2016), there is great importance in better understanding how these variables may influence post-stroke aphasia recovery. The existing literature in the area of religiosity, spirituality, and aphasia rehabilitation is sparse and scattered. Below we attempt to thread together the ideas presented across the different studies to form a description of the current state of our knowledge in this area.

There is emerging literature exploring the influence of religiosity and one's spirituality on post-stroke aphasia recovery across culturally and linguistically diverse populations. For instance, Kardosh and Damico (2009) noted that "divine will" is attributed as an important factor in aphasia recovery and linked to one's religious beliefs. Khamis-Dakwar and Froud (2012) described the religious diversity within Arab Americans and suggests that Arab American communities' reliance on higher powers and involvement with Church, Mosque, or community healers are essential during aphasia rehabilitation and need to be considered in regard to their engagement with rehabilitation. Ulatowska et al. (2021) refer to the importance of acknowledging the value of religion within Filipino culture and its contribution to fostering positivity in aphasia recovery. In a primer describing key principles for aphasiologists interacting with Asian Indians with aphasia, Hallowell et al. (2012) noted that religious beliefs influence social interactions and act as a source of control for healing (external source such as dharma) instead of personal control.

Considering religiosity, spirituality, and post-stroke aphasia across diverse populations can occur within the context of *Living with Aphasia: Framework for Outcome Measurement* [A-FROM (Kagan et al., 2008)], the Life Participation Approach to Aphasia (LPAA; Chapey et al., 2001), or a social model of aphasia rehabilitation (e.g., Simmons-Mackie & Kagan, 2007). A-FROM recognizes the language environment (e.g., awareness of aphasia within one's religious or spiritual community), participation (e.g., attending religious worship), and personal factors (e.g., emotions, religion, personal beliefs) in living with aphasia and approaching assessment and intervention of aphasia. Additionally, A-FROM, LPAA, and a social model of aphasia rehabilitation could consider approaching religiosity and spiritual beliefs as a method of belonging to a social community. Relatedly, as noted earlier, one's religious and spiritual beliefs may be considered a coping resource (Pargament et al., 2000) that persons with aphasia could rely upon to help manage their emotions and attitudes toward their communication impairments. Coping resources can be considered within the aphasia and neuropsychobiology of stress framework (Fig. 1) proposed by Laures-Gore and Buchanan (2015) in which coping is an individual factor which may mitigate the stress response.

Coping Resources

Addressing the mental health of persons with aphasia is an important part of the rehabilitation process because of its impact on functional outcomes and mortality (Eriksson et al., 2016; Morris et al., 1992; Williams et al., 2004; van de Weg et al., 1999). For instance, post-stroke depression, which has a 60% prevalence in persons with aphasia (Kauhanen et al., 2000) and its symptoms are 7.408 times more likely to be noted in persons with aphasia than in persons post-stroke without aphasia (Zanella et al., 2022), can negatively affect rehabilitation outcomes (Laures-Gore et al., 2020). Furthermore, stress can interact with language performance in persons with aphasia (Cahana-Amitay et al., 2011; Silverman McGuire et al., 2020) and post-stroke anxiety can be detrimental to rehabilitative progress (Shimoda & Robinson,

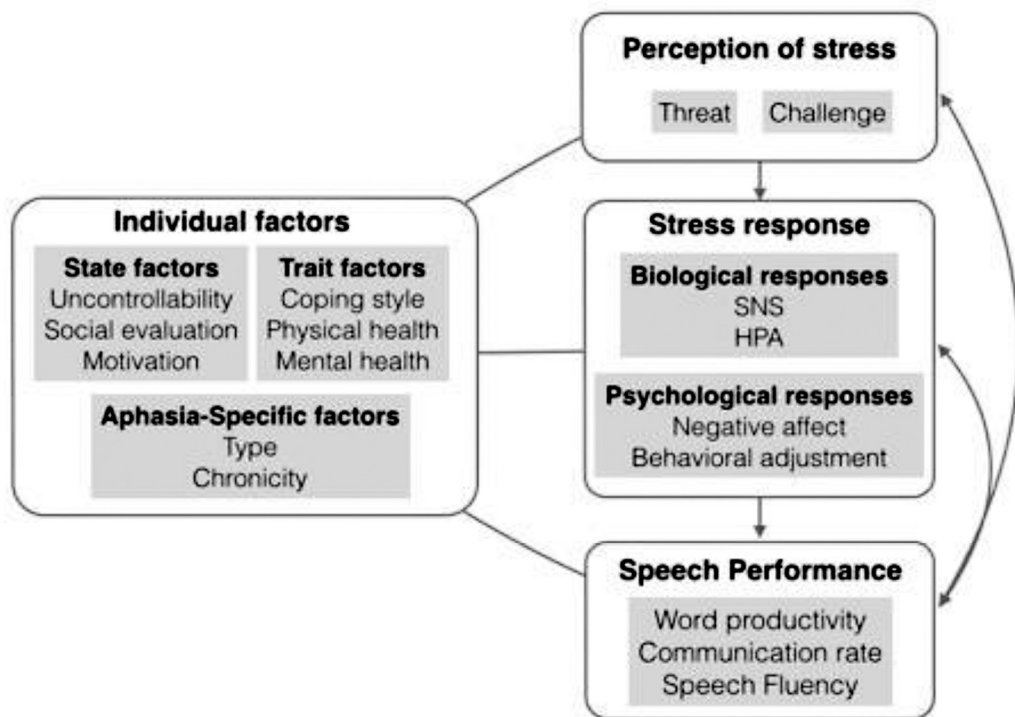


Figure 1 Framework for aphasia and the neuropsychobiology of stress (Laures-Gore & Buchanan, 2015). (Reprinted with permission from Taylor & Francis Group, *The Journal of Clinical and Experimental Neuropsychology* [https://www.tandfonline.com/]. Laures-Gore JS, Buchanan TW. Aphasia and the neuropsychobiology of stress. *Journal of Clinical and Experimental Neuropsychology* 2015;37(07):688–700. Doi: 10.1080/13803395.2015.1042839.)

1998). As a result of aphasia, reports of social isolation and a reduction of friend networks are frequently noted by persons with aphasia (Worrall et al., 2016) having a negative effect on one's well-being. These studies complement other work in the greater aphasia literature emphasizing the importance of coping resources, styles, and skills on living with aphasia (Harmon, 2020; DuBay et al., 2011). Religion and spirituality can support adjustment to stressors through meaning making, coping, and resilience (Davis et al., 2019).

Religious coping is conceptualized as understanding and managing stressors in ways connected to the sacred (Pargament, 1997). Pargament et al. (2011) summarized the many facets of Pargament's (1997) theory of religious coping by noting it is multimodal (behaviors, relationships, emotions, cognitions), multivalent (positive; e.g., treating God as a partner), and negative coping (e.g., passive dependence on God to resolve the

problem, seeing the event as punishment; methods), and it is dynamic (changes over time). Pargament (1997) also proposed the combined religious moderator-deterrent model which proffers that as stress increases, religious coping increasingly protects someone from stress (Xu, 2016). Religious coping has been linked to quality of life (QOL) in cancer patients (Tarakeshwar et al., 2006) and has been explored as it relates to the recent COVID-19 pandemic (Thomas & Barbato, 2020).

Within the aphasia literature, in an earlier study investigating coping with aphasia (Parr, 1994), religious belief was included as one of the coping strategies measured in 20 persons with aphasia and some of their co-survivors. Fifteen percent of the participants (3 of the 20 participants) indicated that religious belief was important in coping with aphasia. One person with aphasia reports that "she has become deeply religious since her illness, and this

reinforces her belief that she can recover fully” (p. 463). An additional 10 participants in this sample of 20 total participants noted that they maintained a moderate amount of involvement in religious worship, but did not view it as helping them to cope with their current situation. The results of the study indicate that there is great diversity in ways of coping with aphasia and that for some, religious beliefs may be one of several factors [e.g., fatalism, optimism, control (Viney & Westbrook, 1984)] in successfully coping with living with aphasia. Relatedly, Parr (1995) studied roles in persons with aphasia including involvement in religious practice and found that after acquiring aphasia, some participants reported more religious involvement.

Holland et al. (2010) analyzed scripts co-constructed by persons with aphasia and clinicians for themes within the context of monologues and dialogues. Prayers were noted as a theme in monologues (not dialogues) and 6 of the 28 monologues included a prayer, testimonial, speech, and lecture theme. The authors noted that church testimonials or prayers were important in the monologues; however, few clinicians address spiritual matters. Holland et al. (2010) continued that being unable to say the central prayers of one’s religious convictions could be devastating for many individuals with aphasia as prayers and testimonials were affirmative and positive. They note that the scripts reflect a belief that religion played a role in recovery and that prayers were often utilized for strength and persevering in aphasia recovery.

Through both qualitative and quantitative data collection, Laures-Gore et al. (2018) explored spirituality in 13 adults with aphasia in the southeastern United States. Using a modified and truncated version of the *Trait Sources of Spirituality Scale* (Westbrook et al., 2018), four participants described themselves as spiritual (31%), whereas nine described themselves as spiritual and religious (69%); characterizations of what the sacred meant resulted in diverse responses with God or personal deity as the most common definition. Interviews revealed that 11 of the 13 participants (85%) noted that religion or spirituality contributed to their recovery from stroke and importantly to their

improvements in communication. Two themes related to their recovery emerged, a belief that a greater power was in control of events (there was a plan for their experience) and the other a belief in a greater power as helper, noting their relation with God was a source of strength during their recovery. Religious practices (e.g., worship, prayer, meditation, Bible reading) kept them in relation to God; and people in their lives were important in their recovery (additionally noted earlier by Holland et al., 2010). Some commented that connection to others has a spiritual meaning to persons with aphasia. The authors consider this acknowledgement of religion or spirituality to one’s recovery within the context of coping as an individual factor within the neuropsychobiology of stress framework for persons with aphasia (Laures-Gore & Buchanan, 2015).

In a series of studies and perspectives, MacKenzie and Mumby along with colleagues have developed a line of inquiry exploring religion and spirituality in persons with aphasia (MacKenzie, 2016; MacKenzie & Marsh, 2019; Mumby, 2019; Mumby & Grace, 2019; Mumby & Roddam, 2021; MacKenzie & Mumby, 2022). For instance, MacKenzie and Mumby (2023, p. 65) provided accounts from age and occupation-diverse persons with aphasia, noting that religion and spirituality are not the same thing. One person with aphasia described spirituality as “looking for a meaningful connection with something bigger than yourself” (p. 64); connection was echoed by others interviewed. Furthermore, some viewed religion as a moral compass and the rituals that accompany religion as important. The authors emphasize that persons with aphasia may have difficulty talking about abstract things such as religion and spirituality which can make discussions about this topic challenging. Overall, participants note that aphasia had a profound effect on their spirituality, affecting their life view and strengthening their spiritual beliefs. The authors comment that spirituality was part of coping for some of the persons with aphasia.

Quality of Life

Religiosity and spirituality also have been considered within the realm of QOL (LaPointe,

1999) and studied with both a quantitative and qualitative method. Ross and Wertz (2003) explored QOL in the United States using the World Health Organization Quality of Life-Short Form (WHOQOL Group, 1998) which included a religious and spiritual domain. The authors defined QOL according to the World Health Organization (WHO, 1996) which included “perceptions of their position in life in the context of culture and value systems... in relation to their goals, expectations, standards and concerns” (p. 355). Spiritual/religious/personal beliefs showed some weak discrimination between QOL for those living with aphasia and a control group (no brain injury or brain damage, no aphasia) with a 72 to 89% degree of overlap between the two groups and their consideration of these beliefs affecting their QOL. Such results suggest that both groups view their beliefs as important contributors to QOL, but it is not indicated which group is higher or lower in their attribution of these beliefs to QOL. Cruice et al. (2010) in their study of important variables contributing to QOL in 30 participants from Australia noted that for one participant her aphasia negatively affected her ability to provide religious ministry, thus affecting her QOL. This study utilized a structured interview using six open-ended questions and allowed the participants to define QOL. Additionally, we note that the larger literature in aphasia and QOL identifies a lack of inclusion of persons with aphasia in the development of QOL questionnaires (Charalambous et al., 2020). This exclusion could negatively affect the knowledge gained about the role of religiosity and spirituality in the QOL of persons with aphasia. Furthermore, because QOL differs across cultures, it is important to explore QOL more globally (i.e., beyond the Western perspective) as emphasized in Haraldstad et al.’s (2019) systematic review.

Life Participation

Fotiadou et al. (2014) explored 10 blogs written in the English language by persons with aphasia (7 American, 2 British, 1 Turkish) and noted that aphasia was the impetus for some to become more active members in groups, including religious groups. Reading religious material

is an important aspect for participation of some persons with aphasia as noted in a case report of a bilingual individual (Spanish and Galician languages; García-Caballero et al., 2007). Also, in an earlier study conducted in the United States, religious passages were used to assess auditory comprehension (Waller & Darley, 1978). Dalemans et al. (2008) reviewed literature written in the English language regarding the social participation of working-age persons with aphasia including the social domain of community, civic, and social life including religion and yielded three articles in this area with none describing participation in organized religion. These findings highlight the need to incorporate religion and spiritual practices into measures of life participation globally across cultures and languages.

Involving Spiritual Healthcare Providers

Laures-Gore et al. (2021) distributed a survey to spiritual healthcare providers (e.g., chaplains, clinical pastoral educators, and pastoral counselors) across the United States inquiring into their training with aphasia, aphasia awareness, and knowledge of aphasia. A specific religious affiliation was not a criterion for inclusion in the survey. The majority of respondents were aware of aphasia and could identify the correct definition of aphasia. Most respondents had not been formally trained in aphasia. Given the low awareness in the general public (Code, 2020), these numbers are encouraging. Baker (2022) described his work with persons with communication disorders from a chaplain’s perspective and highlights the importance of spending time with a person to learn their language and the importance of building trust, using other forms of communication, not just verbal, such as gestures, vocalizations, drawing, or writing. Using the eyes to communicate and the significance of silence as a communication tool (“being with them in their habitat is valuing them as people,” p. 149). He uses a “book without words” consisting of photos he’s taken that can be used for prayer or reflection. He recognizes the diversity of rituals across religious and spiritual beliefs and emphasizes that communication aids need to reference these rituals. From

a holistic perspective, involvement of spiritual healthcare providers specific to a person with aphasia's religious and spiritual belief system is an important yet understudied area within aphasiology.

Defining Religion and Spirituality

MacKenzie (2020) described conversations with eight persons with aphasia in acute or chronic stages of recovery. The guiding research question was "What is it like to express your spirituality when you have aphasia." Across the participants, definitions of spirituality were different; three described spirituality and religion as linked, whereas others viewed religion and spirituality as two distinct entities. Of those individuals who identified with a religious belief, several indicated that stroke and aphasia did not change their faith; one person indicated that God is good. Religious practices remained important to some of the participants and some remained engaged in religious activities, although modifications to their activities may have been needed.

Overall, there is some evidence that religion and spirituality may be important factors related to coping, QOL, and life participation in aphasia rehabilitation for some individuals. Engaging spiritual healthcare providers is also important when considering aphasia recovery. As noted earlier, Holland et al. (2010) highlighted the importance of gaining the ability to say religious prayers, and others have noted the importance of engaging in religious and spiritual practices as a method to remain connected to one's community. The clinical implications for this aspect of rehabilitation are numerous.

CLINICAL IMPLICATIONS

Calls for considering the religious and spiritual beliefs of people served by speech-language pathologists in general (MacKenzie & Mumby, 2023; Mathisen et al., 2015) and more specifically within aphasia (Holland et al., 2010; Laures-Gore et al., 2018; Mumby & Roddam, 2021; MacKenzie, 2020) are growing. As noted by Mathisen et al. (2015), speech-language pathologists should become spiritually literate.

This call to action is particularly urgent as revealed by Mumby (2023) who discovered through interviews with persons with aphasia that obtaining spiritual help during the rehabilitative process was difficult or not addressed. Relatedly, Mumby (2023) noted that persons with aphasia emphasized the need for professionals to feel free to talk about spirituality. As noted earlier, A-FROM and the LPAA both provide structure for addressing religion and spiritual practices and beliefs in aphasia therapy. Additionally, the need to better understand coping resources and strategies in persons with aphasia is important in order to strengthen mental health supports across culturally and linguistically diverse populations. As well, speech-language pathologists working with persons with aphasia recognize the importance of patient-centered outcomes.

Life Participation

Religiosity and spiritual beliefs and practices incorporated into the person with aphasia's life participation will be diverse and solely reliant on one's traditions, experiences, background, and culture. Furthermore, some person's with aphasia may not desire to discuss religious or spiritual matters. Only when collaborative goal setting identifies religion or spirituality as important to the person with aphasia, then targeting functional goals to support the individual's spirituality or religiosity may focus around prayer, worship service participation, or participating in small group discussions about holy texts. Perhaps compensatory methods of spiritual connection that rely less on linguistic components such as religious art or spiritual music could be introduced. It may be necessary to raise aphasia awareness within one's religious or spiritual community including spiritual leaders, or facilitate an exploration of novel ways to foster life participation within religion and spirituality. Of the utmost importance is the foundation of person-centered care within all goals. Additionally, spiritual activities often provide opportunities for social interaction and language use practice which contributes to positive rehabilitation outcomes (Laures-Gore et al., 2018). Because the influence of spiritual healthcare providers has been linked to

QOL, coping, anxiety reduction, hospital care satisfaction, and medical decision making (Damen et al., 2020; Poncin et al., 2020; Timmins et al., 2018), it is necessary to ensure they are engaged as requested by the person with aphasia and/or family and prepared to facilitate the person with aphasia's ability to actively discuss spirituality and religion as the client finds comfortable and relevant to their life.

Mental Health/Coping

As noted in our earlier review, a handful of articles have shown that religious beliefs and spirituality are important in coping with post-stroke aphasia. Speech-language pathologists working with persons with aphasia should become familiar with ways in which the person they are serving may use religious or spiritual beliefs to cope. Considering that religious coping has a multimodal dimension, coping may take the form of prayer or religious service attendance. If aphasia is hindering a person's ability to access any aspect of religious coping, then an important buffer of stress may be inaccessible to this person, in turn negatively affecting their mental health. Understanding how one copes with stressors is important in supporting the mental health of someone with aphasia.

Engaging Spiritual Healthcare Providers

In addition to increasing access to religious and spiritual practices for the person with aphasia, it is also necessary to involve spiritual healthcare workers such as chaplains, faith healers, and other religious teachers/guides appropriate to an individual's culture and belief system in the rehabilitation process (Le Danseur, 2020). These professionals play a key role in addressing both the spiritual and emotional needs (Graves et al., 2002) of people with aphasia and have been positively linked to QOL, coping, anxiety reduction, hospital care satisfaction, and healthcare decision making (Damen et al., 2020; Poncin et al., 2020; Timmins et al., 2018). Speech-language pathologists, physical therapists, and occupational therapists have all

called spiritual healthcare providers "invaluable" to the rehabilitation process (MacKenzie, 2016).

A dynamic, interactive approach could be considered while engaging spiritual healthcare providers across cultures. This approach acknowledges the wisdom of the person with aphasia, the spiritual healthcare provider, and the speech-language pathologist. Within this approach, each learns from one another and respects contributions from each while recognizing the sensitivity of this topic in some cultures. For example, Ovenden and Mumby (2022) discussed their experiences as Western trained speech-language pathologists in Eastern Africa and their journey toward understanding religion and spirituality and its interaction with beliefs about disability within the Ugandan culture. Because within the Ugandan culture, spirituality is an important part of their identity (p. 118), the authors recognized the need to spend time understanding specific spiritual dynamics of the communities by learning from the persons they were serving and their colleagues. They also noted that when Ugandan speech-language pathologists were asked about the intersectionality of spirituality and speech-language therapy themes related to hope (change can occur through the natural and supernatural), experiences of negative traditional practices, clients seeking spiritual over medical healing, and personal beliefs benefiting speech-language therapy emerged. Ovenden and Mumby's work illustrates the humility required by speech-language pathologists when learning within a different culture and becoming culturally sensitive to the religious and spiritual needs of the persons they serve.

Within the Western medical model and relevant to some cultures, several possibilities for collaborating with spiritual healthcare providers as part of an interdisciplinary team could include gathering information about one's spiritual or religious beliefs at the beginning of the rehabilitative process (as suggested by MacKenzie & Mumby, 2022) along with the speech-language pathologist to involve supported communication techniques, as well as involvement in the collaborative goal-setting process. Spiritual healthcare providers may possess aphasia awareness and are familiar with the term

aphasia, but lack formal training regarding how to facilitate conversation with a person who has aphasia (Mumby 2023; Laures-Gore et al., 2021). Formal training of supported communication techniques by the speech-language pathologist is an important ingredient in aphasia recovery and should mirror instruction given to other members of the person with aphasia's community (e.g., family, friends, and employer). Additionally, when culturally appropriate, providing formal training to a spiritual healthcare provider can ensure they maintain realistic recovery expectations for people with aphasia (Sailus, 2015). Ultimately, spiritual healthcare providers are key players in the rehabilitation team who may need formal training to effectively interact with people who have aphasia. These suggestions are provided with the recognition that spiritual health providers take many forms within different cultures and in some instances, the speech-language pathologist must follow the lead of the spiritual health provider.

Information Gathering

As noted by Brandenburg et al. (2015), gathering information of religion and spirituality as part of life participation in persons with aphasia rarely occurs. Previous literature in the area of religion and spirituality in persons with aphasia reveals that different techniques have been utilized while gathering information about a person with aphasia's religious or spiritual beliefs and practices. Interviews, script samples, and questionnaires are examples of information gathering about religion and spirituality that could be utilized across different cultures. Mumby and Roddam (2021) described a feasibility study using the WELLHEAD toolkit (a resource for promoting spiritual health; Mumby & Grace, 2019) and the Spiritual Health and Life Orientation Measure (SHALOM; Fisher, 2010) in addressing the religious and spiritual needs of persons with aphasia (sampling from the United Kingdom). They described SHALOM as a 20-item rating scale using two parameters of spiritual ideals and lived experience. Both the WELLHEAD toolkit and SHALOM were found to be acceptable to persons with aphasia with communication

supports which makes this a promising resource for clinicians and other spiritual healthcare professionals working with persons with aphasia. Additionally, Laures-Gore et al. (2018) modified a truncated version of the *Trait Sources of Spirituality Scale* (Westbrook et al., 2018). Their modification of this scale included a large bold font and reading the questions aloud with the participant who was previously identified as having a mild aphasia and living in the southeastern United States. A mixed methods approach using both qualitative (interviews, storytelling with supported conversation techniques) and quantitative (aphasia friendly questionnaires) may be beneficial in gathering religious and spirituality information from persons with aphasia in some cultures. The studies described here sample participants from the United Kingdom and the United States. Generalizing findings to other cultures should be considered with caution. The speech-language pathologist should follow the cultural traditions of the person with aphasia to most respectfully gather insights into one's religious and spiritual beliefs if the person with aphasia indicates a desire to share this information.

Clinical Recommendations

Inclusion of the intersection between the religiosity and spirituality of a person with aphasia can be placed within the clinical framework of the LPAA model, A-FROM, and as a coping strategy within a framework for stress and aphasia. Religious and spiritual beliefs and practices may play an important role in clinical care. Clinical recommendations include:

- Asking about religious and spiritual beliefs when designing life participation goals and when understanding ways of coping utilized by the person with aphasia.
- Changing perspectives of speech-language pathologists to improve their comfort in including religious beliefs and practices in the clinical care of a person with aphasia.
- Including person-centered goals designed by the person with aphasia that may include religious and spiritual practices and beliefs.
- Facilitating connection to religious or spiritual communities through communication

support for individuals who develop a new spiritual or religious perspective through the experience of stroke and aphasia rehabilitation.

- Including spiritual health service providers in the clinical care of a person with aphasia if the person with aphasia indicates that is wanted.

FUTURE DIRECTIONS

The future for growth in the intersection between one's religious and spiritual practices and beliefs and aphasia rehabilitation is quite promising and multifaceted. Future areas of research that would improve understanding of the constructs of religiosity and spirituality include the following:

- Developing more methods of information gathering of religiosity and spirituality that are clinically accessible and aphasia friendly.
- Exploring the potential role of religiosity and spirituality on aphasia recovery across multiple cultures.
- Designing longitudinal studies that follow persons with aphasia throughout their recovery process to determine whether there are fluctuations in beliefs during different recovery stages and the impact of potential fluctuations on recovery.

Each of these future directions has the potential to improve the rehabilitative process of persons with aphasia and should continue to be explored within the context of interventions, educating speech-language pathologists, and through different research methods. There is sizable room for knowledge growth within this facet of aphasia rehabilitation. The opportunities for better understanding and incorporating religious and spiritual beliefs into aphasia rehabilitation are many.

CONCLUSION

In a pluralistic world characterized by cultural diversity and numerous religions each with unique histories, doctrine, and practices, it is vital that professionals involved in the clinical care of persons with aphasia consider an indi-

vidual's religious and spiritual belief systems in order to deliver culturally sensitive rehabilitative services. Religiosity and spirituality are complex with nuanced concepts whose effects vary from person to person. Future research is needed to better understand the intersection of religious and spiritual beliefs within aphasia rehabilitation across cultures. The intersection of religious and spiritual beliefs and practices with aphasia research and clinical care is crucial in advancing the physical health, mental health, and language recovery of persons with aphasia.

CONFLICT OF INTEREST

None declared.

REFERENCES

- Aderibigbe, G., & Medine, C. M. J. (Eds.). (2015). *Contemporary perspectives on religions in Africa and the African diaspora*. New York: Palgrave Macmillan
- Adeyemi, O. (2006). *The New Covenant Law and the Law of Christ*. Liberty Baptist Theological Seminary (1973–2015). 273. Accessed October 5, 2023 at: https://digitalcommons.liberty.edu/lts_fac_pubs/273
- Ahmed, S., Khokhar, N., & Shubrook, J. H. (2022). Fasting during Ramadan: a comprehensive review for primary care providers. *Diabetology*, 3(2), 276–291
- Akyol, M. (2017). *The Islamic Jesus: How the King of the Jews Became a Prophet of the Muslims*. St. Martin's Publishing Group
- Al-Shafei, A. I. (2014). Ramadan fasting ameliorates arterial pulse pressure and lipid profile, and alleviates oxidative stress in hypertensive patients. *Blood Pressure*, 23(3), 160–167
- Almaraz, D., Saiz, J., Moreno Martín, F., Sánchez-Iglesias, I., Molina, A. J., & Goldsby, T. L. (2022). What aspects of religion and spirituality affect the physical health of cancer patients? A systematic review. *Healthcare (Basel)*, 10(8), 1447
- Amit, B. H., Krivoy, A., Mansbach-Kleinfeld, I., Zalsman, G., Ponizovsky, A. M., Hoshen, M., Farbstein, I., Apter, A., Weizman, A., & Shoval, G. (2014). Religiosity is a protective factor against self-injurious thoughts and behaviors in Jewish adolescents: findings from a nationally representative survey. *European Psychiatry*, 29(8), 509–513
- Ammerman, N. (2013). Spiritual but not religious? Beyond binary choices in the study of religion: Spiritual but not religious? *Journal for the Scientific Study of Religion*, 52(2), 258–278
- ASHA. (2017). *Issues in Ethics: Cultural and Linguistic Competence*. American Speech-Language-Hearing

- Association. Accessed October 5, 2023 at: <https://www.asha.org/practice/ethics/cultural-and-linguistic-competence/>
- Aten, J., & Schenck, J. (2007). Reflections on religion and health research: an interview with Dr. Harold G. Koenig. *Journal of Religion and Health, 46*(2), 183–190
- Azzam, L., & Gouverneur, A. (1985). *The Life of the Prophet Muhammad*. Cambridge: Islamic Texts Society
- Babayán, A., Erbey, M., Kumral, D., Reinelt, J. D., Reiter, A. M. F., Röbbing, J., Schaare, H. L., Uhlig, M., Anwander, A., Bazin, P. L., Horstmann, A., Lampe, L., Nikulin, V. V., Okon-Singer, H., Preusser, S., Pampel, A., Rohr, C. S., Sacher, J., Thöne-Otto, A., . . . Villringer, A. (2019). A mind-brain-body dataset of MRI, EEG, cognition, emotion, and peripheral physiology in young and old adults. *Scientific Data, 6*(180308), 1–21
- Baetz, M., Bowen, R., Jones, G., & Koru-Sengul, T. (2006). How spiritual values and worship attendance relate to psychiatric disorders in the Canadian population. *Canadian Journal of Psychiatry, 51*(10), 654–661
- Baetz, M., Griffin, R., Bowen, R., Koenig, H. G., & Marcoux, E. (2004). The association between spiritual and religious involvement and depressive symptoms in a Canadian population. *The Journal of Nervous and Mental Disease, 192*(12), 818–822
- Baker, S. (2022). The chaplain's perspective. In: S. MacKenzie & K. Mumby (Eds.), *Perspectives on Spirituality in Speech and Language Therapy*. J & R Press Ltd.
- Bays, C. L. (2001). Older adults' descriptions of hope after a stroke. *Rehabilitation Nursing, 26*(1), 18–20, 23–27
- Beverluis, J. (2011). *Sourcebook of the World's Religions: An Interfaith Guide to Religion and Spirituality*. New World Library
- Bilezikian, G. (2009). *Christianity 101: Your Guide to Eight Basic Christian Beliefs*. Zondervan Academic
- Bloesch, D. (2005). *Jesus Christ: Savior and Lord*. InterVarsity Press
- Brandenburg, C., Worrall, L., Rodriguez, A., & Bagraith, K. (2015). Crosswalk of participation self-report measures for aphasia to the ICF: What content is being measured? *Disability and Rehabilitation, 37*(13), 1113–1124
- Brewer, L. C., Bowie, J., Slusser, J. P., Scott, C. G., Cooper, L. A., Hayes, S. N., Patten, C. A., & Sims, M. (2022). Religiosity/spirituality and cardiovascular health: the American Heart Association Life's simple 7 in African Americans of the Jackson Heart Study. *Journal of the American Heart Association, 11*(17), e024974
- Britannica. (2015). *Shruti*. Accessed October 5, 2023 at: <https://www.britannica.com/topic/Shruti>
- Bruce, M. A., Beech, B. M., Kermah, D., Bailey, S., Phillips, N., Jones, H. P., Bowie, J. V., Heitman, E., Norris, K. C., Whitfield, K. E., & Thorpe, R. J. (2022). Religious service attendance and mortality among older Black men. *PLoS One, 17*(9), e0273806
- Byrne, P. (1988). The theory of religion and method in the study of religion in the *Encyclopedia of Religion. Religious Studies, 24*(1), 3–10
- Cahana-Amitay, D., Albert, M. L., Pyun, S. B., Westwood, A., Jenkins, T., Wolford, S., & Finley, M. (2011). Language as a stressor in aphasia. *Aphasiology, 25*(2), 593–614
- Centeno, J., Kiran, S., & Armstrong, E. (2020). Aphasia management in growing multiethnic populations. *Aphasiology, 34*(11), 1314–1318
- Chapey, R., Duchan, J., Elman, R., Garcia, L., Kagan, A., Lyon, J., & Simmons-Mackie, N. (2001). Life participation approach to aphasia: a statement of values for the future. In: R. Chapey (Ed.), *Language intervention strategies in aphasia and related neurogenic communication disorders* (pp. 235–245). Lippincott Williams & Wilkins
- Charalambous, M., Kambanaros, M., & Annoni, J. M. (2020). Are people with aphasia (PWA) involved in the creation of quality of life and aphasia impact-related questionnaires? A scoping review. *Brain Sciences, 10*(10), 688
- Chida, Y., Steptoe, A., & Powell, L. H. (2009). Religiosity/spirituality and mortality. A systematic quantitative review. *Psychotherapy and Psychosomatics, 78*(2), 81–90
- Ching, J. (2016). *Chinese Religions*. Springer
- Chitwood, D. D., Weiss, M. L., & Leukefeld, C. G. (2008). A systematic review of recent literature on religiosity and substance use. *Journal of Drug Issues, 38*(3), 653–688
- Chow, E., & Nelson-Becker, H. (2010). Spiritual distress to spiritual transformation: stroke survivor narratives from Hong Kong. *Journal of Aging Studies, 24*(4), 313–324
- Code, C. (2020). The implications of public awareness and knowledge of aphasia around the world. *Annals of Indian Academy of Neurology, 23*(Suppl 2), S95–S101
- Cruice, M., Hill, R., Worrall, L., & Hickson, L. (2010). Conceptualising quality of life for older people with aphasia. *Aphasiology, 24*(3), 327–347
- Dalemans, R., De Witte, L., Wade, D., & Van den Heuvel, W. (2008). A description of social participation in working-age persons with aphasia: a review of the literature. *Aphasiology, 22*(10), 1071–1091
- Damen, A., Schuhmann, C., Leget, C., & Fitchett, G. (2020). Can outcome research respect the integrity of chaplaincy? A review of outcome studies. *Journal of Health Care Chaplaincy, 26*(4), 131–158
- Davis, D., Hook, J., & Worthington, E., Jr. (2008). Relational spirituality and forgiveness: the roles of attachment to God, religious coping, and viewing the transgression as a desecration. *Journal of Psychology and Christianity, 27*(4), 293–301

- Davis, E. B., Kimball, C. N., Aten, J. D., Hamilton, C., Andrews, B., Lemke, A., Hook, J. R., Captari, L., Granqvist, P., Hook, J. N., Davis, D. E., Van Tongeren, D. R., Cattrell, E. L., Cuthbert, A. D., & Chung, J. (2019). Faith in the wake of disaster: a longitudinal qualitative study of religious attachment following a catastrophic flood. *Psychological Trauma: Theory, Research, Practice, and Policy*, *11*(6), 578–587
- Diener, E., & Clifton, D. (2002). Life satisfaction and religiosity in broad probability samples. *Psychological Inquiry*, *13*(3), 206–209
- Diener, E., Tay, L., & Myers, D. G. (2011). The religion paradox: If religion makes people happy, why are so many dropping out? *Journal of Personality and Social Psychology*, *101*(6), 1278–1290
- DuBay, M., Laures-Gore, J., Matheny, K., & Rowski, M. (2011). Coping resources in individuals with aphasia. *Aphasiology*, *25*(9), 1016–1029
- Ebert, T., Gebauer, J. E., Talman, J. R., & Rentfrow, P. J. (2020). Religious people only live longer in religious cultural contexts: a gravestone analysis. *Journal of Personality and Social Psychology*, *119*(1), 1–6
- Elhag, M., Awaisu, A., Koenig, H. G., & Mohamed Ibrahim, M. I. (2022). The association between religiosity, spirituality, and medication adherence among patients with cardiovascular diseases: a systematic review of the literature. *Journal of Religion and Health*, *61*, 3988–4027
- Elkhaloufi, F., Boutayeb, S., Alaoui, Y. L., Zakkouri, F. A., Jaouhari, M. E., & Errihani, H. (2022). Association between religiosity, depression, and anxiety among Moroccan cancer patients. *Journal of Religion and Health*, *61*, 4382–4397
- Ellis, L., Farrington, D., & Hoskin, A. (Eds.). (2019). Institutional factors. In: *Handbook of Crime Correlates* (2nd ed.). Academic Press
- Eriksson, K., Hartelius, L., & Saldert, C. (2016). On the diverse outcome of communication partner training of significant others of people with aphasia: an experimental study of six cases. *International Journal of Language & Communication Disorders*, *51*(4), 402–414
- Eshun, S. (2003). Sociocultural determinants of suicide ideation: a comparison between American and Ghanaian college samples. *Suicide & Life-Threatening Behavior*, *33*(2), 165–171
- Fiori, K., Brown, E., Cortina, K., & Antonucci, T. (2006). Locus of control as a mediator of the relationship between religiosity and life satisfaction: age, race, and gender differences. *Mental Health, Religion & Culture*, *9*(3), 239–263
- Fisher, J. (2010). Development and application of a spiritual well-being questionnaire called SHALOM. *Religions*, *1*(1), 105–121
- Fitzgerald, T. (2000). *The Ideology of Religious Studies*. Oxford University Press
- Fotiadou, D., Northcott, S., Chatzidaki, A., & Hilari, K. (2014). Aphasia blog talk: How does stroke and aphasia affect a person's social relationships? *Aphasiology*, *28*(11), 1281–1300
- Fradelos, E. C., Latsou, D., Mitsi, D., Tsaras, K., Lekka, D., Lavdaniti, M., Tzavella, F., & Papatou-nasiou, I. V. (2018). Assessment of the relation between religiosity, mental health, and psychological resilience in breast cancer patients. *Contemporary Oncology/Współczesna Onkologia*, *22*(3), 172–177
- García-Caballero, A., García-Lado, I., González-Hermida, J., Area, R., Recimil, M. J., Juncos Rabadán, O., Lamas, S., Ozaita, G., & Jorge, F. J. (2007). Paradoxical recovery in a bilingual patient with aphasia after right capsuloputaminar infarction. *Journal of Neurology, Neurosurgery, and Psychiatry*, *78*(1), 89–91.
- Garrouette, E. M., Goldberg, J., Beals, J., Herrell, R., Manson, S. M., & AI-SUPERPPF Team. (2003). Spirituality and attempted suicide among American Indians. *Social Science & Medicine*, *56*(7), 1571–1579
- Garssen, B., Visser, A., & Pool, G. (2021). Does spirituality or religion positively affect mental health? Meta-analysis of longitudinal studies. *The International Journal for the Psychology of Religion*, *31*(1), 4–20
- Gethin, R. (2010). *The Foundations of Buddhism*. Oxford University Press
- Giaquinto, S., Spiridigliozzi, C., & Caracciolo, B. (2007). Can faith protect from emotional distress after stroke? *Stroke*, *38*(3), 993–997
- Gill, J. H. (2002). *Native American worldviews: An introduction*. Humanities Press
- Goldenberg, R. (2007). *The Origins of Judaism: From Canaan to the Rise of Islam*. Cambridge University Press
- Graves, D. L., Shue, C. K., & Arnold, L. (2002). The role of spirituality in patient care: Incorporating spirituality training into medical school curriculum. *Academic Medicine*, *77*(11), 11675
- Greene, K. V., & Yoon, B. J. (2004). Religiosity, economics and life satisfaction. *Review of Social Economy*, *62*(2), 245–261
- Grönberg, A., Henriksson, I., Stenman, M., & Lindgren, A. G. (2022). Incidence of aphasia in ischemic stroke. *Neuroepidemiology*, *56*(3), 174–182
- Hackett, C., Stonawski, M., Potančoková, M., Grim, B. J., & Skirbekk, V. (2015). The future size of religiously affiliated and unaffiliated populations. *Demographic Research*, *32*, 829–842
- Hahad, O., Prochaska, J. H., Daiber, A., & Muenzel, T. (2019). Environmental noise-induced effects on stress hormones, oxidative stress, and vascular dysfunction: Key factors in the relationship between cerebrocardiovascular and psychological disorders. *Oxidative Medicine and Cellular Longevity*, *2019* (advance online publication); doi: 10.1155/2019/4623109

- Hallowell, B., Kumar, V., Anjum, J., & Farooqi-Shah, Y. (2012). Research and clinical interactions with Asian Indians with aphasia: a primer for English-speaking North American clinicians and researchers. *Journal of Medical Speech-Language Pathology*, 20(3), 31–36
- Haraldstad, K., Wahl, A., Andenæs, R., Andersen, J. R., Andersen, M. H., Beisland, E., Borge, C. R., Enggebretsen, E., Eisemann, M., Halvorsrud, L., Hanssen, T. A., Haugstvedt, A., Haugland, T., Johansen, V. A., Larsen, M. H., Løvereide, L., Løyland, B., Kvarme, L. G., Moons, P., . . . Helseth, S., & The LIVSFORSK Network. (2019). A systematic review of quality of life research in medicine and health sciences. *Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care and Rehabilitation*, 28(10), 2641–2650
- Harmon, T. (2020). Everyday communication challenges in aphasia: descriptions of experiences and coping strategies. *Aphasiology*, 34(10), 1270–1290
- Hill, P., Pargament, K. II, Hood, R., McCullough, Jr., Michael E., Swyers, J., Larson, D., & Zinnbauer, B. (2000). Conceptualizing religion and spirituality: points of commonality, points of departure. *Journal for the Theory of Social Behaviour*, 30(1), 51–77
- Hill, T. D., Saenz, J. L., & Rote, S. M. (2020). Religious participation and mortality risk in Mexico. *The Journals of Gerontology: Series B*, 75(5), 1053–1061
- Holland, A. L., Halper, A. S., & Cherney, L. R. (2010). Tell me your story: analysis of script topics selected by persons with aphasia. *American Journal of Speech-Language Pathology*, 19(3), 198–203
- Holland, J. (1992). *Atonement of Jesus Christ*. Macmillan
- Hope, M. O., Assari, S., Cole-Lewis, Y. C., & Caldwell, C. H. (2017). Religious social support, discrimination, and psychiatric disorders among Black adolescents. *Race and Social Problems*, 9(2), 102–114
- Hummer, R. A., Rogers, R. G., Nam, C. B., & Ellison, C. G. (1999). Religion involvement and U.S. adult mortality. *Demography*, 36(2), 273–285
- Irwin, L. (1996). Introduction: themes in Native American spirituality. *American Indian Quarterly*, 20(3/4), 309–326
- Johnstone, B., Franklin, K. L., Yoon, D. P., Burris, J., & Shigaki, C. (2008). Relationships among religiousness, spirituality, and health for individuals with stroke. *Journal of Clinical Psychology in Medical Settings*, 15(4), 308–313
- Jung, J. H., & Ellison, C. G. (2022). Discovering grace at the table? Prayers at mealtime, marital status, and life satisfaction in later life. *Research on Aging*, 44(1), 44–53
- Kagan, A., Simmons-Mackie, N., Rowland, A., Huijbregts, M., Shumway, E., McEwen, S., Threats, T., & Sharp, S. (2008). Counting what counts: a framework for capturing real-life outcomes of aphasia intervention. *Aphasiology*, 22(3), 258–280
- Kardosh, B., & Damico, J. (2009). The contribution of language in shaping clinical culture: Palestinian aphasics and families living in Israel. *Asia Pacific Journal of Speech, Language and Hearing*, 12(3), 243–252
- Karff, S. E. (2009). Recognizing the mind/body/spirit connection in medical care. *The Virtual Mentor*, 11(10), 788–792
- Kauhanen, M. L., Korpelainen, J. T., Hiltunen, P., Määttä, R., Mononen, H., Brusin, E., Sotaniemi, K. A., & Myllylä, V. V. (2000). Aphasia, depression, and non-verbal cognitive impairment in ischaemic stroke. *Cerebrovascular Diseases (Basel, Switzerland)*, 10(6), 455–461
- Keller, R. (2012). "Hinduism," *Light and Truth: A Latter-day Saint Guide to World Religions*. Provo, UT: Religious Studies Center; Salt Lake City: Deseret Book, 16–39
- Kessler, C., Wischnewsky, M., Michalsen, A., Eisenmann, C., & Melzer, J. (2013). Ayurveda: between religion, spirituality, and medicine. *Evidence-Based Complementary and Alternative Medicine*, 2013, 952432; doi: 10.1155/2013/952432
- Kessler, R. C., Ruhm, C. J., Puac-Polanco, V., Hwang, I. H., Lee, S., Petukhova, M. V., Sampson, N. A., Ziobrowski, H. N., Zaslavsky, A. M., & Zubizarreta, J. R. (2022). Estimated prevalence of and factors associated with clinically significant anxiety and depression among US adults during the first year of the COVID-19 pandemic. *JAMA Network Open*, 5(6), e2217223
- Khamis-Dakwar, R., & Froud, K. (2012). *Aspects of Multilingual Aphasia* (M. R. Gitterman, M. Goral, & L. K. Obler, Eds.). Multilingual Matters
- Kim-Prieto, C., & Miller, L. (2018). Intersection of religion and subjective well-being. In: *Handbook of well-being*. (E. Diener, S. Oishi, and L. Tay, Eds.) Salt Lake City, UT: DEF Publishers, 1–9
- Kinney, A. Y., Emery, G., Dudley, W. N., & Croyle, R. T. (2002). Screening behaviors among African American women at high risk for breast cancer: Do beliefs about God matter? *Oncology Nursing Forum*, 29(5), 835–843
- Koenig, H. G. (2012). Religion, spirituality, and health: the research and clinical implications. *ISRN Psychiatry*, 2012, 278730
- Koenig, H. G. (2000). Religion and medicine I: historical background and reasons for separation. *International Journal of Psychiatry in Medicine*, 30(4), 385–398
- Koenig, H. G., & Koenig, H. G. (2008). *Medicine, Religion, and Health: Where Science and Spirituality Meet*. Templeton Foundation Press
- Koenig, H. G., King, D. E., & Carson, V. B. (2012). *Handbook of Religion and Health* (2nd ed). Oxford University Press
- Koenig, H., Al-Zaben, F., & VanderWeele, T. (2020). Religion and psychiatry: recent developments in research. *BJPsych Advances*, 26(5), 262–272
- Lupo, M. K., & Strous, R. D. (2011). Religiosity, anxiety and depression among Israeli medical

- students. *The Israel Medical Association Journal*, 13, 613–618
- Kugbey, N., Oppong Asante, K., & Meyer-Weitz, A. (2020). Depression, anxiety and quality of life among women living with breast cancer in Ghana: mediating roles of social support and religiosity. *Supportive Care in Cancer*, 28, 2581–2588
- Lalayants, M., Oyo, A., & Prince, J. D. (2020). Religiosity and outcomes among child welfare-involved youth. *Child & Adolescent Social Work Journal*, 37, 251–261
- Lamb, M., Buchanan, D., Godfrey, C. M., Harrison, M. B., & Oakley, P. (2008). The psychosocial spiritual experience of elderly individuals recovering from stroke: a systematic review. *International Journal of Evidence-Based Healthcare*, 6(2), 173–205
- LaPointe, L. L. (1999). Quality of life with aphasia. *Seminars in Speech and Language*, 20(1), 5–16
- Larkman, C., Mellahn, K., Han, W., & Rose, M. (2023). Aphasia rehabilitation when speech pathologists and clients do not share the same language: a scoping review. *Aphasiology*, 37(4), 635–657
- Laures-Gore, J. S., & Buchanan, T. W. (2015). Aphasia and the neuropsychobiology of stress. *Journal of Clinical and Experimental Neuropsychology*, 37(7), 688–700
- Laures-Gore, J. S., Dotson, V. M., & Belagaje, S. (2020). Depression in poststroke aphasia. *American Journal of Speech-Language Pathology*, 29(4), 1798–1810
- Laures-Gore, J., Freestone, E., Griffey, H., Lesandrini, J., James-Jones, R., & Reis, D. (2021). Aphasia Awareness among Spiritual Healthcare Providers in the United States. American Speech Language Hearing Association Annual Convention, Washington, DC
- Laures-Gore, J. S., Lambert, P. L., Kruger, A. C., Love, J., & Davis, D. E., Jr. (2018). Spirituality and post-stroke aphasia recovery. *Journal of Religion and Health*, 57, 1876–1888
- Le Danseur, M. (2020). Stroke rehabilitation. *Critical Care Nursing Clinics of North America*, 32(1), 97–108
- Li, S., Stampfer, M. J., Williams, D. R., & VanderWeele, T. J. (2016). Association of religious service attendance with mortality among women. *JAMA Internal Medicine*, 176(6), 777–785
- Lipka, M., & Gecewicz, C. (2017). More Americans now say they're spiritual but not religious. *Pew Research Center*. Accessed October 5, 2023 at: <http://www.pewresearch.org/fact-tank/2017/09/06/more-americans-now-say-theyre-spiritual-but-not-religious/>
- Lucchetti, G., Lucchetti, A. L., & Koenig, H. G. (2011). Impact of spirituality/religiosity on mortality: comparison with other health interventions. *Explore (New York, N.Y.)*, 7(4), 234–238
- MacKenzie, S. (2020). "Is all in all": exploring spirituality with people with expressive aphasia using a phenomenological approach. *Journal of Disability & Religion*, 27(1), 23–38
- MacKenzie, S., & Marsh, I. (2019). The philosopher of ambiguity: exploring stories of spirituality of people with aphasia through the lens of Merleau-Ponty. *Journal of Disability & Religion*, 23(3), 211–226
- MacKenzie, S., & Mumby, K. (Eds.). (2023). *Perspectives on Spirituality in Speech and Language Therapy*. J & R Press Ltd.
- MacKenzie, S. (2016). Sacred work? Exploring spirituality with therapists working with stroke patients with aphasia. *Journal for the Study of Spirituality*, 6, 78–88
- Mak, H. W. (2019). Dimensions of religiosity: the effects of attendance at religious services and religious faith on discontinuity in substance use. *Journal of Studies on Alcohol and Drugs*, 80(3), 358–365
- Malinowski, B., Zalewska, K., Węsierska, A., Sokołowska, M. M., Socha, M., Liczner, G., Pawlak-Osińska, K., & Wiciński, M. (2019). Intermittent fasting in cardiovascular disorders: an overview. *Nutrients*, 11(3), 673
- Marques, A., Ihle, A., Souza, A., Peralta, M., & de Matos, M. G. (2022). Religious-based interventions for depression: a systematic review and meta-analysis of experimental studies. *Journal of Affective Disorders*, 309, 289–296
- Marshall, R. S., & Mohapatra, B. (2017). Integrative intervention: a new perspective and brief review in aphasia. *Disability and Rehabilitation*, 39(19), 1999–2009
- Martin, J. W. (2001). *The Land Looks after Us: A History of Native American Religion*. Oxford University Press
- Mathisen, B., Carey, L. B., Carey-Sargeant, C. L., Webb, G., Millar, C., & Krikheli, L. (2015). Religion, spirituality and speech-language pathology: a viewpoint for ensuring patient-centred holistic care. *Journal of Religion and Health*, 54(6), 2309–2323
- McGrath, A. E. (2006). *Christianity: An Introduction*. John Wiley & Sons
- McSherry, W., & Cash, K. (2004). The language of spirituality: an emerging taxonomy. *International Journal of Nursing Studies*, 41(2), 151–161
- Mellahn, K., Larkman, C., Lakhani, A., Siyambalapatiya, S., & Rose, M. L. (2023). The nature of inpatient rehabilitation for people with aphasia from culturally and linguistically diverse backgrounds: a scoping review. *Topics in Stroke Rehabilitation*, 30(2), 146–156
- Moorley, C. R., Cahill, S., & Corcoran, N. T. (2016). Life after stroke: coping mechanisms among African Caribbean women. *Health & Social Care in the Community*, 24(6), 769–778
- Moorman, P. G., Barrett, N. J., Wang, F., Alberg, J. A., Bandera, E. V., Barnholtz-Sloan, J. B., Bondy, M., Cote, M. L., Funkhouser, E., Kelemen, L. E., Peres, L. C., Peters, E. S., Schwartz, A. G., Terry, P. D., Crankshaw, S., Abbott, S. E., & Schildkraut, J. M.

- (2019). Effect of cultural, folk, and religious beliefs and practices on delays in diagnosis of ovarian cancer in African American women. *Journal of Women's Health, 28*(4), 444–451
- Moreira-Almeida, A., Neto, F., & Koenig, H. (2006). Religiousness and mental health: a review. *Revista brasileira de psiquiatria (Sao Paulo, Brazil: 1999), 28*(3), 242–250
- Morgenstern, L. B., & Kissela, B. M. (2015). Stroke disparities: large global problem that must be addressed. *Stroke, 46*(12), 3560–3563
- Morgenstern, L. B., Sánchez, B. N., Skolarus, L. E., Garcia, N., Risser, J. M., Wing, J. J., Smith, M. A., Zahuranec, D. B., & Lisabeth, L. D. (2011). Fatalism, optimism, spirituality, depressive symptoms, and stroke outcome: a population-based analysis. *Stroke, 42*(12), 3518–3523
- Morris, P. L., Raphael, B., & Robinson, R. G. (1992). Clinical depression is associated with impaired recovery from stroke. *The Medical Journal of Australia, 157*(4), 239–242
- Mumby, K. (2019). A single case narrative of spirituality following aphasia from traumatic brain injury: findings about forgiveness and freedom using WELLHEAD and SHALOM. *Religions, 10*(5), 301
- Mumby, K. (2023). Supporting spiritual health in dementia using the WELLHEAD toolkit: a 'story-tale' from a person with logopenic aphasia. *Journal for the Study of Spirituality*, doi: 10.1080/20440243.2023.2187968
- Mumby, K. J., & Grace, D. (2019). WELLHEAD: a collaborative approach to spiritual assessment and intervention, developed with people with aphasia. *Health and Social Care Chaplaincy, 7*(2), 216–240
- Mumby, K., & Roddam, H. (2021). Aphasia and spirituality: the feasibility of assessment and intervention using WELLHEAD and SHALOM. *Aphasiology, 35*(7), 925–949
- Naz, H., Haider, R., Rashid, H., Ul Haq, Z., Malik, J., Zaidi, S. M. J., Ishaq, U., & Trevisan, R. (2022). Islamic fasting: cardiovascular disease perspective. *Expert Review of Cardiovascular Therapy, 20*(10), 795–805
- Nguy, B., Quique, Y. M., Cavanaugh, R., & Evans, W. S. (2022). Representation in aphasia research: an examination of US treatment studies published between 2009 and 2019. *American Journal of Speech-Language Pathology, 31*(3), 1424–1430
- Nicholson, A., Rose, R., & Bobak, M. (2009). Association between attendance at religious services and self-reported health in 22 European countries. *Social Science & Medicine, 69*, 519–528
- Okulicz-Kozaryn, A. (2010). Religiosity and life satisfaction across nations. *Mental Health, Religion & Culture, 13*(2), 155–169
- Olupona, J. K. (2014). *African Religions: A Very Short Introduction*. Oxford University Press
- Oman, D., Kurata, J. H., Strawbridge, W. J., & Cohen, R. D. (2002). Religious attendance and cause of death over 31 years. *International Journal of Psychiatry in Medicine, 32*(1), 69–89
- Omu, O., Al-Obaidi, S., & Reynolds, F. (2014). Religious faith and psychosocial adaptation among stroke patients in Kuwait: a mixed method study. *Journal of Religion and Health, 53*(2), 538–551
- Ortiz, F., Davis, K., & McNeill, B. (2008). Curanderismo: religious and spiritual worldviews and indigenous healing traditions. In: B. W. McNeill & J. M. Cervantes (Eds.), *Latina/o Healing Practices: Mestizo and Indigenous Perspectives* (pp. 271–300)
- Osama, M., & Malik, R. J. (2019). Salat (Muslim prayer) as a therapeutic exercise. *The Journal of the Pakistan Medical Association, 69*(3), 399–404.
- Ovenden, L., & Mumby, K. (2022). Reflections on the cultural context of spirituality: UK and East African perspectives. In: S. MacKenzie & K. Mumby (Eds.), *Perspectives on Spirituality in Speech and Language Therapy*. J & R Press Ltd.
- Pargament, K. (1997). *The Psychology of Religion and Coping: Theory, Research, Practice*. New York: Guilford Press
- Pargament, K., Feuille, M., & Burdzy, D. (2011). The brief RCOPE: current psychometric status of a short measure of religious coping. *Religions, 2*(1), 51–76
- Pargament, K. I., Koenig, H. G., & Perez, L. M. (2000). The many methods of religious coping: Development and initial validation of the RCOPE. *Journal of Clinical Psychology, 56*(4), 519–543
- Parr, S. (1994). Coping with aphasia: conversations with 20 aphasic people. *Aphasiology, 8*(5), 457–466
- Parr, S. (1995). Everyday reading and writing in aphasia: role change and the influence of pre-morbid literacy practice. *Aphasiology, 9*(3), 223–238
- Poncin, E., Brandt, P. Y., Rouiller, F., Drouin, M., & Dandarova Robert, Z. (2020). Mapping the health-care chaplaincy literature: an analytical review of publications authored by chaplains and theologians between 2000 and 2018. *Journal of Health Care Chaplaincy, 26*(1), 16–44
- Powell, L. H., Shahabi, L., & Thoresen, C. E. (2003). Religion and spirituality. Linkages to physical health. *The American Psychologist, 58*(1), 36–52
- Puchalski, C., Ferrell, B., Virani, R., Otis-Green, S., Baird, P., Bull, J., Chochinov, H., Handzo, G., Nelson-Becker, H., Prince-Paul, M., Pugliese, K., & Sulmasy, D. (2009). Improving the quality of spiritual care as a dimension of palliative care: the report of the Consensus Conference. *Journal of Palliative Medicine, 12*, 885–904
- Rajasakran, T., Sinnappan, S., & Raja, S. (2014). Purushartha: Maslow's need hierarchy revisited. *The Anthropologist, 18*(1), 199–203
- Rasic, D. T., Belik, S. L., Elias, B., Katz, L. Y., Enns, M., Sareen, J., & The Swampy Cree Suicide Prevention Team. (2009). Spirituality, religion and

- suicidal behavior in a nationally representative sample. *Journal of Affective Disorders*, 114(1-3), 32–40
- Reyhner, J. (2006). *American Indian/Alaska Native Education: An Overview*. American Indian Education
- Robinson-Smith, G. (2002). Prayer after stroke. Its relationship to quality of life. *Journal of Holistic Nursing*, 20(4), 352–366
- Ross, K., & Wertz, R. (2003). Quality of life with and without aphasia. *Aphasiology*, 17(4), 355–364
- Russell, A. M., Yu, B., Thompson, C. G., Sussman, S. Y., & Barry, A. E. (2020). Assessing the relationship between youth religiosity and their alcohol use: a meta-analysis from 2008 to 2018. *Addictive Behaviors*, 106, 106361
- Salagame, K. (2013). *Oxford Handbook of Happiness*. Oxford University Press
- Santomaura, D., Mantilla Herrera, A., Shadid, J., Zheng, P., Ashbaugh, C., Pigott, D., Abbafati, C., Adolph, C., Amlag, J., Aravkin, A., Bang-Jensen, B., Bertolacci, G., Bloom, S., Castellano, R., Castro, E., Chakrabarti, S., Chattopadhyay, J., Cogen, R., Collins, J., ... Ferrari, A. (2021). Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic. *The Lancet*, 398(10312), 1700–1712
- Sailus, M. The role of the chaplain in the interdisciplinary care of the rehabilitation patient. *Rehabilitation Nursing*
- Scott, M. J., Robbins, P. A., Conde, E., & Bentley-Edwards, K. L. (2022). Depression in the African American Christian Community: examining denominational and gender differences. *Journal of Religion and Health*, 61(4), 2838–2854
- Seiler, A., Fagundes, C., & Christian, L. (2020). The impact of everyday stressors on the immune system and health. In: Choukèr, A. (Ed.) *Stress Challenges and Immunity in Space*. Springer, Cham. 10.1007/978-3-030-16996-1_6
- Seybold, K., & Hill, P. (2001). The role of religion and spirituality in mental and physical health. *Current Directions in Psychological Science*, 10(1), 21–24
- Sherratt, S., & Worrall, L. (2020). Posttraumatic growth following aphasia: a prospective cohort study of the first year post-stroke. *Aphasiology*, 35(3), 291–313
- Shi, L., & Zhang, C. (2012). Spirituality in traditional Chinese medicine. *Pastoral Psychology*, 61(5–6), 959–974
- Shimoda, K., & Robinson, R. G. (1998). Effects of anxiety disorder on impairment and recovery from stroke. *The Journal of Neuropsychiatry and Clinical Neurosciences*, 10(1), 34–40
- Shoko, T. (2016). *Karanga Indigenous Religion in Zimbabwe: Health and Well-being*. Routledge
- Sholihin, M., Hardivizon, H., Wanto, D., & Saputra, H. (2022). The effect of religiosity on life satisfaction: a meta-analysis. *HTS Teologiese Studies/Theological Studies*, 78(4), 10
- Silverman McGuire, S., Laures-Gore, J., Johns Free-stone, E., & van Leer, E. (2021). Simulated laughter, perceived stress, and discourse in adults with aphasia. *Aphasiology*, 35, 1–20. Doi: 10.1080/02687038.2020.1787944
- Silverstein, A., Stroumsa, G., & Blidstein, M. (Eds.). (2015). *The Oxford Handbook of Abrahamic Religions*. Oxford University Press
- Simmons-Mackie, N., & Kagan, A. (2007). Application of the ICF in aphasia. *Seminars in Speech and Language*, 28(4), 244–253
- Skolarus, L. E., Lisabeth, L. D., Sánchez, B. N., Smith, M. A., Garcia, N. M., Risser, J. M., & Morgenstern, L. B. (2012). The prevalence of spirituality, optimism, depression, and fatalism in a bi-ethnic stroke population. *Journal of Religion and Health*, 51(4), 1293–1305
- Smith, T., Hout, M., Marsden, P. (2016). General social survey, 1972–2014 [Cumulative File]. Inter-university Consortium for Political and Social Research, National Opinion Research Center
- Sonderegger, K. (2010). *That Jesus Christ Was Born a Jew: Karl Barth's Doctrine of Israel*. Penn State Press
- Stavrova, O. (2015). Religion, self-rated health, and mortality: whether religiosity delays death depends on the cultural context. *Social Psychological & Personality Science*, 6(8), 911–922
- Steiner, L. M., Zaske, S., Durand, S., Molloy, M., & Arteta, R. (2017). Spiritual factors predict state and trait anxiety. *Journal of Religion and Health*, 56, 1937–1955
- Storch, E. A., Storch, J. B., & Adams, B. G. (2002). Intrinsic religiosity and social anxiety of intercollegiate athletes. *Psychological Reports*, 91(1), 186–186
- Svensson, N. H., Hvidt, N. C., Nissen, S. P., Storsveen, M. M., Hvidt, E. A., Søndergaard, J., & Thilising, T. (2020). Religiosity and health-related risk behaviours in a secular culture—Is there a correlation? *Journal of Religion and Health*, 59, 2381–2396.
- Swinton, J. (2010). The meanings of spirituality: a multi-perspective approach to the spiritual. In: McSherry, W., & Ross, L. (Eds.), *Spiritual Assessment in Healthcare Practice*. M&K Update Ltd.
- Tarakeshwar, N., Vanderwerker, L. C., Paulk, E., Pearce, M. J., Kasl, S. V., & Prigerson, H. G. (2006). Religious coping is associated with the quality of life of patients with advanced cancer. *Journal of Palliative Medicine*, 9(3), 646–657
- Thomas, J., & Barbato, M. (2020). Positive religious coping and mental health among Christians and Muslims in response to the COVID-19 pandemic. *Religions*, 11(10), 498
- Thuné-Boyle, I. C., Stygall, J. A., Keshtgar, M. R., & Newman, S. P. (2006). Do religious/spiritual coping strategies affect illness adjustment in patients with cancer? A systematic review of the literature. *Social Science & Medicine* (1982), 63(1), 151–164

- Thygesen, L. C., Hvidt, N. C., Hansen, H. P., Hoff, A., Ross, L., & Johansen, C. (2012). Cancer incidence among Danish Seventh-day Adventists and Baptists. *Cancer Epidemiology*, 36(6), 513–518
- Timmins, F., Caldeira, S., Murphy, M., Pujol, N., Sheaf, G., Weathers, E., Whelan, J., & Flanagan, B. (2018). The role of the healthcare chaplain: a literature review. *Journal of Health Care Chaplaincy*, 24(3), 87–106
- Ulatowska, H., Santos, T. O., & Cuadro, C. K. (2021). Cultural considerations to the life participation approach in aphasia: a Filipino case study. *Innovation in Aging*, 5(Suppl 1), 934
- van de Weg, F. B., Kuik, D. J., & Lankhorst, G. J. (1999). Post-stroke depression and functional outcome: a cohort study investigating the influence of depression on functional recovery from stroke. *Clinical Rehabilitation*, 13(3), 268–272
- Van Ness, P. H., Kasl, S. V., & Jones, B. A. (2003). Religion, race, and breast cancer survival. *International Journal of Psychiatry in Medicine*, 33(4), 357–375
- Viney, L. L., & Westbrook, M. T. (1984). Coping with chronic illness: strategy preferences, changes in preferences and associated emotional reactions. *Journal of Chronic Diseases*, 37(6), 489–502
- Vishkin, A., Ben-Nun Bloom, P., & Tamir, M. (2019). Always look on the bright side of life: religiosity, emotion regulation and well-being in a Jewish and Christian sample. *Journal of Happiness Studies*, 20, 427–447
- Vitkovic, S. (2018). The similarities and differences between Abrahamic religions. *International E-Journal of Advances in Social Sciences*, 4(11), 455–462
- Volkow, N. D., Koob, G. F., & McLellan, A. T. (2016). Neurobiologic advances from the brain disease model of addiction. *The New England Journal of Medicine*, 374(4), 363–371
- Wallace, L. E., Anthony, R., End, C. M., & Way, B. M. (2019). Does religion stave off the grave? Religious affiliation in one's obituary and longevity. *Social Psychological & Personality Science*, 10(5), 662–670
- Waller, M. R., & Darley, F. L. (1978). The influence of context on the auditory comprehension of paragraphs by aphasic subjects. *Journal of Speech and Hearing Research*, 21(4), 732–745
- Westbrook, C., Davis, D., McElroy, S., Brubaker, K., Choe, E., Karaga, S., Dooley, M., O'Bryant, B., Van Tongeren, D., & Hook, J. (2018). Trait sources of spirituality scale: assessing trait spirituality more inclusively. *Measurement & Evaluation in Counseling & Development*, 51(2), 125–138
- Wheeler, B. (2002). *Prophets in the Quran: An Introduction to the Quran and Muslim Exegesis*. A&C Black
- Whitehead, B. R., & Bergeman, C. S. (2020). Daily religious coping buffers the stress–affect relationship and benefits overall metabolic health in older adults. *Psychology of Religion and Spirituality*, 12(4), 393–399
- WHOQOL Group. (1998). Development of the World Health Organization WHOQOL-BREF quality of life assessment. *Psychological medicine*, 28(3), 551–558
- World Health Organization. (1996). WHOQOL-BREF: introduction, administration, scoring and generic version of the assessment: field trial version, December 1996 (No. WHOQOL-BREF). World Health Organization
- Williams, L. S., Ghose, S. S., & Swindle, R. W. (2004). Depression and other mental health diagnoses increase mortality risk after ischemic stroke. *The American Journal of Psychiatry*, 161(6), 1090–1095
- Wong, W. (2011). Defining Chinese folk religion: a methodological interpretation. *Asian Philosophy*, 21(2), 153–170
- World Health Organization. (2017). Depression and other common mental disorders: Global health estimates. World Health Organization. <https://apps.who.int/iris/handle/10665/254610>. License: CC BY-NC-SA 3.0 IGO
- Worrall, L., Ryan, B., Hudson, K., Kneebone, I., Simmons-Mackie, N., Khan, A., Hoffmann, T., Power, E., Togher, L., & Rose, M. (2016). Reducing the psychosocial impact of aphasia on mood and quality of life in people with aphasia and the impact of caregiving in family members through the Aphasia Action Success Knowledge (Aphasia ASK) program: study protocol for a randomized controlled trial. *Trials*, 17(1), 153
- Worthington, E. L. Jr., Hook, J. N., Davis, D. E., & McDaniel, M. A. (2011). Religion and spirituality. *Journal of Clinical Psychology*, 67(2), 204–214
- Wylen, S. M. (2000). *Settings of Silver: An Introduction to Judaism*. Paulist Press
- Xu, J. (2016). Pargament's theory of religious coping: implications for spiritually sensitive social work practice. *British Journal of Social Work*, 46(5), 1394–1410
- Yao, X., & Yao, H. (2000). *An Introduction to Confucianism*. Cambridge University Press
- Zanella, C., Laures-Gore, J., Dotson, V., & Belagaje, S. (2023). Incidence of post-stroke depression symptoms and potential risk factors in adults with aphasia in a comprehensive stroke center. *Topics in Stroke Rehabilitation*, 30(5), 448–458
- Zimmer, Z., Chiu, C. T., Saito, Y., Lin, Y. H., Ofstedal, M. B., & Jagger, C. (2020). Does religious activity distinguish the mortality experiences of older Taiwanese? An analysis using eighteen years of follow-up data. *Journal of Religion and Health*, 59, 289–308
- Zinnbauer, B., Pargament, K., Cole, B., Rye, M., Butter, E., Belavich, T., Hipp, K., Scott, A., & Kadar, J. L. (1997). Religion and spirituality: unfuzzifying the fuzzy. *Journal for the Scientific Study of Religion*, 36(4), 549–564