

## **A Correlational Study on the Relationship Between Individual Religious Practices and Life Satisfaction, Depression, and Anxiety Among Seventh-day Adventists Aged 18 to 40 in Singapore**

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### **Abstract**

Religion may have an important role in society, but for many it has lost its relevance. Therefore, there is a moving away from religious organizations and practices. The involvement of people with religion and its practices has shifted significantly particularly among the younger population in society. In this study the relationship was investigated between individual religious practices, mental health, and life satisfaction. Forty one Seventh-day Adventists, aged between 18 and 40, from Singapore participated in the study. Correlational analysis was used to investigate the relationship between frequencies of Sabbath School study, personal prayer, and devotional time with life satisfaction, depression, and anxiety. The results obtained indicated that the relationships between life satisfaction, depression, and anxiety were statistically significant. However, none of the individual religious practices had a statistically significant relationship with life satisfaction, depression, and anxiety. The findings of this research provide data that will enrich the knowledge on the importance of religion among the younger Seventh-day Adventist population.

**Keywords:** *Religious practices, Seventh-day Adventist, life satisfaction, sociology*

### **Introduction**

Religion is important for many people in a number of ways. Throughout history, religion has shaped the direction of human civilization in ways that could not have been accomplished by other forces. For most generations in the past, religion has been the source of mental strength and often has been used to solve problems. Religious values were often the underlying motive in shaping worldviews adopted by individuals and the ensuing social interactions. However, recent reports from the United States (Wilkins-Laflamme, 2022) and Europe (Kościelniak et al., 2022) indicate a steady decline in religious affiliation among their populations. These findings continue to support earlier findings in identifying a specific group, particularly individuals who were born from 1982 to 1996 known as Millennials (McCrindle, 2011), who are apathetic towards religion and disassociate themselves with religious organizations (Rainwater, 2019). The trend of disengaging with religion is also identified among the younger generation known as Generation Z (Sugiarto et al., 2022), who are individuals born between 1997 and the early 2010's (McCrindle, 2011). Among Generation Z, the importance of religion is perceived as contradictory with the scientific reasoning they were taught at school (Bennet, 2022). These changing attitudes toward religion raise a poignant question: Does religion have any relevance in the lives of people, especially among the younger population? Such curiosity in understanding the role of religion in society was the driving motivation for this research.

### **Religion and Life Satisfaction**

Sameer et al. (2023) defined life satisfaction as the way an individual finds a consistent sense of accomplishment in fulfilling her life purpose. For many, religion often brings a sense of purpose, thus influencing an individual's life satisfaction. For example, in a study of Australians by Kortt et al. (2015), they found a considerable positive relationship between the frequency of religious service attendance and life satisfaction. In another study conducted by Aydogdu et al. (2021) in Turkey, a nation that is largely Muslim, it was found that a higher level of mosque attendance, along with self-identification as a religious person and the value placed on religion and God was associated with higher levels of life satisfaction. This study showed that attending a mosque may create and strengthen social ties, leading to the formation of a social network. The benefit of such a social

network can improve the general well-being of a person, even if they are facing challenges such as health issues, economic hardships, retrenchment, or losing a loved one (Aydogdu et al., 2021). However, with the declining trend of people's connection with religion, it raises an important question regarding the possible role religion might contribute towards life satisfaction in the younger population. In the research reported here, the relationship between religious activities and life satisfaction was examined among the younger population in a particular religious group. Furthermore, the current researchers expanded the investigation to determine the relationship between life satisfaction given by religion and the occurrence of the common mental health problems of depression and anxiety.

### ***The Seventh-day Adventist Church as A Research Subject***

While robust data continues to fill the knowledge gap in the intersection between religion, life satisfaction, and mental health, studies among the Seventh-day Adventist (SDA) Christian population remains very limited. However, like many other Christian denominations, the SDAs are also witnessing a constant decline of people associated with their faith, especially among their younger population (Trim, 2022). The concern over the relevance of religiosity among the future generations in the SDA church is therefore a matter demanding attention. Among the available literature, evidence has shown that factors that allow the younger groups of the SDAs to maintain their church attendance is related to how connected the individual is spiritually to the teachings of the church (Jacobs et al., 2019). Additionally, involvement in church activities, and strong modelling from more mature members, has been indicated as providing some form of support in retaining people in the church (Saint-Louis, 2019). Brantley (2020) elaborated further beyond what had been shown by the other two researchers and offered the additional argument that both lifestyle values and schooling received in the SDA educational system were factors aiding in church retention among SDAs.

The SDA church, with its relatively unique theology and lifestyle (Činčala et al., 2021), will inevitably need to address the relevance of the church and its teaching for the younger generations. Doing nothing may enable it keep the older generation in the church. However, with the passage of time, even this outcome may not be assured. As the society continues to evolve, questions over the meaning of religion in life will become a matter for each individual to consider carefully.

## **Literature Review**

### ***Life Satisfaction in Connection with Mental Health***

Happiness and life satisfaction are typically referred to as subjective well-being (Maddux, 2018). A good working definition of subjective well-being is "the experience of joy, contentment, or positive well-being, combined with a sense that one's life is good, meaningful, and worthwhile" (Lyubomirsky, 2014, p. 32). In a study on students, higher life satisfaction was shown to be strongly connected with their mental health risks as well as an increase in areas such as empathy and seeing the need in helping others (Athay et al., 2012; Lippman et al., 2014). Another study also found a connection between school-related stress and symptoms of depression in adolescents (Moksnes et al., 2016). This suggests that life satisfaction can prevent or lessen the consequences of stress that are negative. Yet another study by Guzmán et al. (2019), on children and adolescents, showed similar results to previous studies that revealed an association between life satisfaction and mental health risks (Lyons et al., 2014; Moksnes et al., 2016). The investigation by Guzmán et al. (2019) also shares with that of Moksnes et al. (2016) the idea that internalizing problems, such as symptoms of depression and anxiety, can be negatively associated with overall life satisfaction and that externalizing issues, such as inattention, hyperactivity, and oppositional defiant symptoms, can be negatively associated with overall life satisfaction as well (Lyons et al., 2014; Moksnes et al., 2016).

### ***Religion in Connection With Mental Health***

According to a number of researchers, religiosity has been linked to many positive outcomes. The positive outcomes that have been associated with religious and spiritual beliefs include

increased life satisfaction (Garey et al., 2015), enhancement of mental health through the reduction of symptoms and frequency and prevention of depression (Moreira-Almeida et al., 2014; Bonelli et al., 2012), abatement of emotional exhaustion (Chirico et al., 2020), the ability to manage stress-related situations through the adult life span (Chirico, 2017), reduction of symptoms, frequency of anxiety, and substance abuse (Khalaf et al., 2015), greater overall well-being and greater physical health and quality of life (Moreira-Almeida et al., 2014). In addition, religiosity may decrease symptoms of depression by providing meaning, hope, and a local community that is supportive (Bonelli et al., 2012). Furthermore, meditative practices and prayer are interventions that have been used and found to help maintain good mental health (Fastame et al., 2021). There is also the study by Peres et al. (2018) that found meaning and peace as the significant areas of spirituality and religiosity that were related to improved mental health and life satisfaction.

Regarding young adults, it was found that it may be crucial to include strategies based on religion or spirituality regarding mental health interventions as it has been found that practices and beliefs in religiosity are linked with fewer symptoms of depression (Gwin et al., 2020). However, not all studies have resulted in positive associations between religion and depression. In the study conducted by Aziz et al. (2022), that investigated the effect of religiosity and mental health in different age groups among Indonesian Muslims, the finding showed that depression was higher in older Muslims. The explanation for this may come from the subjects discussed during *Majelis taklim* sermons that had to do with elements of religion such as sin, repentance, and remembering death. These topics may lead to feelings of despair instead of optimism resulting in depression (Aziz et al., 2022). Another study completed by Giannone et al. (2019) also reported similar results. Participants who expressed apprehension and uneasiness regarding existential issues indicated greater degrees of depression, anxiety, and use of substances. In addition, the study by Kreski et al. (2022) showed results that implied that the effects of religious participation on adolescents were not universal and depended on how high religion was on the list of priorities in their life.

### ***Religion in Connection with Anxiety***

Religion can also play a part in reducing anxiety and therefore improve well-being (Hayward & Krause, 2013). Having religious beliefs can help to provide answers to questions that evoke anxiety, such as what is the meaning of life, how significant is a person in the universe, and what happens after death. Religious beliefs can therefore help to serve as a buffer against and moderate the impact of anxiety regarding questions of existential uncertainty (Hayward & Krause, 2013). There have been findings among conservative Christians that associate trust in God and decreased levels of anxiety over death as well as lowered symptoms of depression (Krause, 2015). For spiritual or religious adolescents, talking to a higher power during hardships has also been linked to better problem-solving skills as well as leading to lower levels of anxiety (Boynton, 2014). The results of a study completed by Mahmood et al. (2021) on Pakistani Muslims indicated that people use religion as a coping strategy to deal with anxieties about health. Researchers have also found that religious coping is a significant aspect in aiding individuals during health-related crises (Ali et al., 2018; Sohail, 2018; Zamanian et al., 2015). Another study by Abdel-Khalek et al. (2019), carried out with respondents who were Arab citizens and who were mostly Muslims between the age of 14 and 43 years, suggested that religiosity can affect anxiety by offering a buffer and a coping mechanism. In contrast, a study of Latino youth conducted by DiPierro et al. (2018) discovered some facets of spirituality and religion that can cause anxiety. It has also been found that being heavily involved in religious services and youth groups early on in adolescence, as well as spending more time attending religious services and programs, were both associated with anxiety during mid-adolescence (Peterman et al., 2014).

### ***Religious and the Non-Religious***

The findings of Chesser et al. (2018) revealed that for both religious and non-religious people, having a sense of meaning in life was the most important factor in determining life satisfaction,

followed by using a technique to regulate emotions called cognitive reappraisal, which suggests that simply adopting any belief system that gives meaning to life can have similar benefits for well-being. To say that religion is equivalent to better health is not an adequate assumption, as it fails to describe the nuance of the connection (Speed & Fowler, 2021). It may seem that meaning in life is only associated with religious attributes, but it can also be found outside of religion and only needs adherence to any worldview that can provide purpose and meaning to life (Chesser et al., 2018). In the study by Kreski et al. (2022), adolescents who do not view religion as essential in their lives can still draw on the benefits that are like religious involvement, such as social support and adopting coping mechanisms. It is critical to keep in mind that what may work for a particular individual or group may not work for everyone else (Speed & Fowler, 2021). Seeing all the benefits that come with religious practices does not mean that all mental health interventions must involve religious practices. Religiosity is best seen as an additional resource for intervention (Gwin et al., 2020).

## **Methods**

### ***Data Collection Steps***

A cross sectional model was selected for this research. Using G\*Power (Version 3.1.9.6; Faul et al., 2009) with an alpha set to .05, power of 80% and effect size of .3 (medium) for two tailed correlational analysis, the ideal sampling size was determined to be 82. The targeted participants were purposively selected among the younger populations of the church in Singapore. The cut off point for the age to be included in the analysis was set at 40 years following the concept of Lachman et al. (2014). This was further expanded by Infurna et al. (2020), who argued that the stage of transition of an individual from young to middle age occurs at around 40 years old.

Recruitment was done through phone calls, instant messaging applications, or face to face meetings with potential participants. Upon initial expression of interest to join the research, participants received a Weblink to the questionnaire. Prior to being able to see the measurement instrument, each participant had to read the Information sheet page on the online survey. This was followed by participants checking a box, after the conditions applying to the research were read, hence giving their consent to participate in the research. At the end of the online questionnaire page, hotline numbers of mental health services available in Singapore were provided to all participants as part of the debriefing process.

### ***Respondent Selection Finalization***

A total of 58 respondents accessed and answered the online questionnaire. From the 58 responses received, 41 respondents (70.6%) met all the inclusion criteria enabling them to be added to the analysis. Using G\*Power (Version 3.1.9.6; Faul et al., 2009) with alpha set at .05, Power at 80% (Columb & Atkinson, 2016), and a total sample size of 41 for two tailed correlational analysis, the effect size was calculated to be .4, indicating a moderate effect size (Cohen, 1988 as cited in Seyla, et al., 2012).

### ***Measurement Instruments***

Participants indicated their gender and age group in the questionnaire. For age, participants had to indicate their age group instead of their specific age. For the study, three groupings of age were set as part of the questionnaire.

Several self-rating scales were used to assess the frequency of participants' personal religious practices. Each question measured a personal religious practice often engaged in by members of the Seventh-day Adventist church. Three criteria were selected to measure the frequency of participants' spiritual activities in three different areas of personal spiritual disciplines. The disciplines selected were studying the Sabbath School lesson (a structured study on a defined topic meant to strengthen biblical knowledge, faith, and commitment), engaging in individual prayer, and having personal devotional time. A Likert scale response was assigned for each question to provide frequency data. Scoring ranged from *never* (1) to *rarely* (2), *often* (3), *very often* (4), and *daily* (5).

To maintain the specificity of what was considered individual prayer, questions regarding prayer were structured explicitly, such as “I have my personal time of prayer (not counting prayer before meals or sleep).”

### ***Mental Health Measures***

*Satisfaction With Life Scales (SWLS).* Life satisfaction was measured with the Satisfaction with Life Scales (SWLS) (Diener et al., 1985). The SWLS is a five-item measurement designed to assess the level of contentment of an individual’s life. Two separated psychometric tests have indicated strong reliability of the instrument. Among Mexican populations, SWLS has been reported to have strong reliability with  $\alpha = .74$  (Lopez-Ortega et al., 2016), while studies among Iranian women had the outcome reliability of  $\alpha = .88$  (Maroufizadeh et al., 2016).

*Personal Health Questionnaire (PHQ-9).* In measuring depression, the Personal Health Questionnaire (PHQ-9) (Kroenke et al., 2001) was used. The PHQ-9 is a 9-item self-administered instrument designed for the measurement of depression. A meta-analysis study completed by Levis et al. (2019) indicated a PHQ-9 test sensitivity of .88 and specificity of .85. In previous studies, internal consistency of  $\alpha = .83$  (Udedi et al., 2019),  $\alpha = .79$  (Molebatsi et al., 2020), and  $\alpha = .90$  (Errazuriz et al., 2022) has been reported from several studies of PHQ-9 conducted in different populations across the world.

*General Anxiety Disorder (GAD-7).* The General Anxiety Disorder (GAD-7) instrument (Spitzer et al., 2011) is a 7-item self-measurement instrument to measure anxiety and general anxiety symptoms. The instrument was developed to detect anxiety among patients in a clinical setting. The GAD-7 instrument has been shown to have significant internal reliability of  $\alpha = .89$  in several studies (Löwe et al., 2008; Zhong et al., 2015). A one factor structure was confirmed through confirmatory factor analysis (Zhong et al., 2015).

### **Results**

Several demographic data were obtained from the participants regarding gender and age. The frequency of their personal spiritual activities and their performance on three mental health scales also was assessed.

Males represented 48.78% of the survey population and females 51.22%. The age distribution of the individuals represented was as follows—18–20 years (17.07%), 21–30 years (48.78%), and 31–40 years (34.15%). The frequency of spiritual activities engaged in by the study group is recorded in Table 1. The data obtained regarding the mental health of participants pertaining to their life satisfaction, levels of depression, and of anxiety is recorded in Table 2.

**Table 1** *Frequency of Spiritual Activities Undertaken by the Survey Group*

<b>Spiritual Activities</b>	<b>Median</b>	<b>Mean</b>	<b>SD</b>
Sabbath School Studies	1.00	1.56	0.90
Personal Devotional	2.00	2.66	1.51
Individual Prayer	3.00	3.05	1.55

**Table 2** *Mean and Standard Deviation of Participant’s Life’s Satisfaction, Depression, and Anxiety*

<b>Parameter</b>	<b>Mean</b>	<b>SD</b>
Life Satisfaction (SWLS)	21.12	6.59
Depression (PHQ-9)	14.85	5.47
Anxiety (GAD-7)	11.34	4.74

### ***Correlations Involving the Parameters Self-satisfaction, Depression, and Anxiety***

Pearson’s correlation was conducted to examine the relationship between gender against self-satisfaction, depression, and anxiety. No significant correlations were found between gender and

self-satisfaction ( $r(41) = -.12, p = .49$ ), gender and depression ( $r(41) = .27, p = .09$ ), and gender and anxiety ( $r(41) = .24, p = .13$ ).

Similarly, the relationship between age and the selected mental health parameters was examined. No significant correlations were found between age and self-satisfaction ( $r(41) = .16, p = .31$ ), age and depression ( $r(41) = -.12, p = .44$ ), and age and anxiety ( $r(41) = -.2, p = .22$ ).

However, significant Pearson's correlations were found among the mental health parameter self-satisfaction, depression, and anxiety. A strong significant and negative correlation ( $p < .001$ , Table 3) was indicated between life satisfaction and depression, indicating that as life satisfaction increased depression decreased. Life satisfaction also affected anxiety. A strong significant and negative correlation ( $p < .01$ , Table 3) was found between life satisfaction and anxiety. This indicated that as life satisfaction increased anxiety reduced among participants in the study. Finally, a very strong significant positive correlation existed ( $p < .001$ ) between depression and anxiety. This indicated that as depression increased anxiety increased accordingly.

**Table 3** Correlation Matrix Calculated Among the Mental Health Parameters ( $N = 41$ )

Variable	Statistic Used	SWLS	PHQ-9	GAD-7
1. SWLS	Pearson's $r$	—		
	$p$ -value	—		
2. PHQ-9	Pearson's $r$	-.52***	—	
	$p$ -value	< .001	—	
3. GAD-7	Pearson's $r$	-.48**	.85***	—
	$p$ -value	< .001	< .001	—

\*\*  $p < .01$ , \*\*\*  $p < .001$

#### **Correlation Involving Sabbath School Studies, Personal Devotional, and Individual Prayer**

Pearson's correlations were calculated to examine the relationships involving the three personal spiritual activities. A strong significant ( $p < .001$ , Table 4) and positive correlation was found between prayer and the devotional life of the individual. No other significant relationships were found involving the other variables tested.

**Table 4** Correlational Coefficient Between Sabbath School Studies, Devotional and Prayer ( $N = 41$ )

Variable	Statistic Used	Sabbath School Studies	Personal Devotions	Individual Prayer
Sabbath School Studies	Pearson's $r$	—		
	$p$ -value	—		
Personal Devotions	Pearson's $r$	.238	—	
	$p$ -value	.135	—	
Individual Prayer	Pearson's $r$	.178	.820	—
	$p$ -value	.265	< .001***	—

#### **Canonical Correlation Analysis Involving Spiritual Practices and Mental Health Variables**

Inter-correlations were identified among the individual spiritual practices and also among the mental health variables. Hence, it seemed prudent to determine what relationship, if any, existed between the spiritual practices and mental health variables. A canonical correlation analysis conducted failed to indicate any statistically significant relationships (Wilk's  $\lambda = .91$  criterion,  $F(6,72) = .62, p = .71$ ).

#### **Discussion**

In the study a relatively well distributed representation was obtained between the genders. In terms of age, most participants represented the young adult's demography, which was the target population for the study. Moreover, even though a moderate effect was obtainable through

G\*Power (Faul et al., 2009), the sample used for this study remains a matter of concern. To strengthen the result of our research, the data gathering needs to be broadened to include sampling beyond Singapore, perhaps drawing on samples from neighbouring countries, such as Indonesia and Malaysia.

From a broader perspective, due to the lack of descriptive data on spiritual disciplines of Seventh-day Adventists in other contexts, it was a challenge to conduct any comparative analysis or discussion. When looking at the data obtained, the frequency of the spiritual activities detailed in the study sample indicated the lack of a significant role of Sabbath School lessons in spiritual development. This suggests the need for further research to identify reasons for this phenomenon.

Personal devotion and individual prayer, on the other hand, showed a slightly different trend, with devotion being practiced on a range of rarely to often, and prayer from often to very often. The finding that the young adults have a higher frequency in doing generic Christian religious practices compared to a structured religious activity that is designed by the SDA denomination to increase faith and commitment perhaps needs to be further explored. While religious identity was not the main focus of this research, the findings of this study are comparable with studies such as conducted by Manalang (2021). His study showed how Millennials and Generation Z are drifting away from the form of corporate religion towards individualized spiritual practices.

### ***The Effects of Religious Activities on Life Satisfaction, Depression, and Anxiety***

From the findings, it may be assumed that the frequency of religious activities does not affect life satisfaction for all the participants. Germani et al. (2021) showed that life satisfaction is related to a person's role in their society in a predominantly collectivist society such as Asia. This also was observed in the study of Gan et al. (2020), where Malaysian Chinese youth reported a higher life satisfaction when experiencing greater social support. Therefore, the role of religious practices in life satisfaction is likely to be seen to be more effective in community-oriented activities. It should be noted, however, that the notion of collectivism in Singapore is unique. As reported by Jiang (2016), the Singapore population actually holds on to individualist practices and perspectives.

In the context of prayer, the results from this study are similar to the study by Babula (2022), which reported no correlation between frequency of prayer and happiness among university students in the United States. This relationship, however, may be affected by the type of prayers, such as that reported by Upenieks (2022). It may be the case that the quality of prayer has a greater role than the quantity of prayer. For instance, Zarzycka and Krok (2020) reported the importance of the type of prayer in maintaining and affecting mental wellness. More specifically, thanksgiving prayer tended to improve an individual's wellbeing, while supplication prayer can have the opposite effect (Zarzycka & Krok, 2020).

Looking at the devotional aspect, the role of quality of the disciplines are likely more significant than the quantity. Existing literature provides some support for this theory. For example, Kim (2014) indicated that while devotional frequency significantly reduced some mental health problems among the Korean population, the effect of the devotional practice was greatly affected by the activities done during these devotional times. The importance of the content of the devotional is further emphasized by the study of Daye (2019), which showed that a specific devotional message integrated to a specific health condition was impactful. Furthermore, according to Garzon (2013), devotional meditation has been used in psychotherapy with noticeable positive outcomes. However, one may also question whether devotion can be considered a tool for psychological relief or as a form of spiritual connection with the divine.

As mentioned in the general observation section, most participants participating in our study rarely studied their Sabbath School lesson. Thus, making Sabbath School study a variable for further investigation in future research is probably not merited. The result however highlights the continual concern over the importance of Sabbath School lesson study in the culture of the Seventh-day Adventist church.

Lastly, as shown in the results, for most participants, not studying Sabbath School, praying, or doing devotion does not reduce life satisfaction, nor does it instigate mental health problems.

### Limitations

While this study was able to offer an overview in the context of Singapore, there are several limitations worth considering. First, data collected for this study were perceptions and self-reports. Future studies could consider other forms of data as a means to triangulate participants' self-reports. Next, a limited number of participants were available in the research locale. Participants involved in this study were those who were actively involved in the church. Furthermore, while a moderate effect size can be produced, a much stronger sampling remains necessary. Lastly, growing evidence indicates that culture can make significant contributions toward an individual's mental health (Mechammil et al., 2019; Yoon et al., 2020). In this study culture was not considered as one of the variables to be measured. Considering the outcome, expanding the study to include cultural factors as one of the variables will be an endeavour to be pursued for future research. Another variable to be considered for future studies is guilt (Künkler et al., 2020).

### Conclusions

Among the younger population of SDAs in Singapore, individual religious practices had no statistically significant effect on life satisfaction. Furthermore, despite findings that life satisfaction may affect depression and anxiety, no statistically significant relationships were established between individual religious practices, life satisfaction, depression, and anxiety. This suggests a new line of research investigation is necessary. At the same time, the findings of this research constitute a poignant reality regarding the relevance of religion among younger SDAs. Furthermore, it may be a crucial time for organized religions to re-examine their engagement with their congregations.

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