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# Systematic review of the relationship between Islamic-Sufi spirituality and practice and mental well-being

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## ABSTRACT

This systematic review examines research on Sufi spirituality and mental well-being. Earlier investigations have focused on general spiritual practice in mental health care and found a connection between spirituality and mental health. In this systematic review, we aimed to explore existing research specifically considering the relationship between Sufi spirituality and mental well-being and examine the quality of this research. We identified 49 papers published between the years 2007–2022. Our findings revealed a positive connection between Sufi spirituality and reducing anxiety and depression in patients. However, most studies were of low quality. This review highlights the need to provide more comprehensive and higher quality research to redress the methodological limitations of the current evidence base.

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## KEYWORDS

Sufi spirituality; mental well-being; spiritual practice; spirituality; systematic review; mental health

## Introduction

Spirituality has had an impact on the mental health and well-being of individuals in many different ways. In recent decades, scientific literature has begun to establish the potentially important role of religious and spiritual practices in physical and mental health (Koenig, 2010), leading to an increased interest in conducting spiritual interventions in Western mental healthcare contexts (Goncalves et al., 2015). Spirituality is a concept with no currently universally accepted definition; therefore, here we defined spirituality as an individual and unique feature that links the self and transcendental. Puchalski (2012) defined spirituality as a way of finding meaning and purpose in life by connecting with the sacred. Additionally, Koenig (2012, p. 279) define spirituality as related to religion because it “involves beliefs, practices, and rituals related to the transcendent, where the transcendent is God”. Sufism is a form of Islamic spiritual tradition. The Sufi tradition is defined as a way of practicing the religion of Islam in a spiritual, inner focused, and practical way. Sufism is a tradition of practice and teaching concentrating on the importance to know the self and the transcendental which is Allah, the God. The term can be

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understood as a path that allows the followers to discover the self and allows them to seek the perfect being which is mentioned as “*insan-i kamil*” in Sufi terminology. Chittick stated that “On the deepest level, Islam is a religion that teaches people how to transform themselves so that they may come into harmony with the ground of all being” (Chittick, 2000, p. 5). The spiritual path laid out in Sufism leads a person towards a state of pure inwardness through the help of practices such as prayer, remembrance (*zikr*), meditation (*muraqabah*) and contemplation (*tafakkur*). Wilcox (1995, pp. 4–5) defines Sufism as “the way to healing the sickness of the soul, the alienation from one’s true being and from God that afflicts modern persons. That healing lies in connection with the source of life”.

In Islam, human integrity, human rights to others and wisdom is the main aspects to achieve in the path of life. Baasher (2001) mentioned about how Islam can promote well-being and help to deal with mental health problems stating that Islamic scriptures deal with a numerous psychosocial context such as family care, love, justice, modesty as well as other content that provide guiding principles for the quality of life. Islamic Spirituality in general provides a path that allow the individual following a personal development which also mentioned in the first part of the Qur’an and main recitation of daily prayers which stated to pursue straight path. The Islamic strategy for promoting mental health and well-being relied on recognising the inherent human defects and calls for systematic and contractive enactment to overcome them. There are some empirical studies conducted to understand the connection between religiosity and mental health in the Islamic context (Abu-Raiya & Pargament, 2011). Keshavarzi and Haque (2013) has been conducted a research on Islamic healing for mental health issues with outlining the nature of spiritual healing from Islamic perspectives to suggest useful practices for clinical applications.

In the UK, Sufism is becoming an increasingly popular complementary practice amongst many spiritual paradigms undertaken today. While some trials and empirical studies have evaluated Sufi practice, no reviews have been conducted to synthesise and critically evaluate this body of literature. We have therefore conducted a systematic review of qualitative and quantitative studies examining Sufi spiritual practice to identify any potential relationship between Sufi spiritual practices and mental well-being, and to evaluate the quality of research conducted in this field to date.

By conducting a comprehensive and systematic review of current evidence, we are thus able to generate hypotheses about the relationship between Sufi practice and mental health. From this, more informed recommendations can also emerge for future research.

The research questions for these systematic reviews are:

- (1) What is the evidence for an association between Sufi practice and mental well-being?
- (2) How exactly, according to the evidence, does Sufi practice impact mental health?
- (3) What is the quality of the evidence?

## Method

### *Eligibility criteria*

#### *Inclusion criteria*

The main inclusion criterion for the review was that the study examined the association between Sufi practice and mental well-being. Specifically, studies had to include:

- (1) Sufi or Islamic practices as a treatment intervention for mental health difficulties and/or research looking at Sufism and its relationship to wellbeing more broadly.
- (2) Research examining the effects of Sufi or Islamic practices upon the mental well-being of individuals (adult/children) with or without mental health problems.
- (3) outcomes being measures of mental well-being.
- (4) study type being original primary qualitative or quantitative research (including experimental, observational, and qualitative research designs).
- (5) Published in English or Turkish languages.

Otherwise, the study design of this review was constructed to be broad, thereby ensuring sufficient evidence could be found on the state of research in this field.

### ***Exclusion criteria***

Studies were excluded if they described other religious practices (rather than Sufi or Islamic spiritual practices); other outcome measures (e.g., physiological outcomes such as heart rate or rehabilitation), other type of studies or literature (e.g., previous reviews, book chapters, case studies, conference abstracts, report, letters, and editorials) and other languages].

### ***Outcome of interest***

The primary outcomes of interest pertained to mental and emotional well-being, anxiety, and depression. Other mental health outcomes – such as subjective well-being, self-knowledge, self-control, mindfulness, and satisfaction with life – were considered as secondary outcomes. The findings have been divided in relation to their methods – between (1) quantitative observational studies, (2) experimental research and (3) qualitative research.

### ***Search strategy***

Study searches were concluded in April 2019 and updated in February 2022 and included a number of databases – Medline/ PubMed, PsycINFO, Scopus, Web of Science, Cochrane Library, Ethos, Google scholar. A full list of exact search terms and combinations with Boolean operators can be found in supplementary materials. The keywords were set as Sufi\* or Islam\* and mental health, mental well-being, emotional well-being, depression, or anxiety. Additionally, the reference lists of each of the selected studies were checked for other potentially relevant studies not discovered in the original database searches.

### ***Data screening and extraction***

The retrieved search results were entered into Endnote and any duplicates removed. Potentially relevant citations were identified initially via a review of their titles and abstracts. The full text of the relevant citations was then read in full and examined in relation to whether they met the eligibility criteria. The study selection process was undertaken, independently, by two reviewers (MC, RG) by screening all titles and abstracts of papers for relevance following the inclusion and exclusion criteria. Articles that did not

meet the inclusion/exclusion criteria were removed and those potentially eligible retained for full text screenings. Full texts were independently screened by three reviewers (MC, RG, and AHA) to confirm eligibility. Any discrepancies over the eligibility of the studies between the reviewers were resolved through discussion.

### ***Risk of bias and quality assessment***

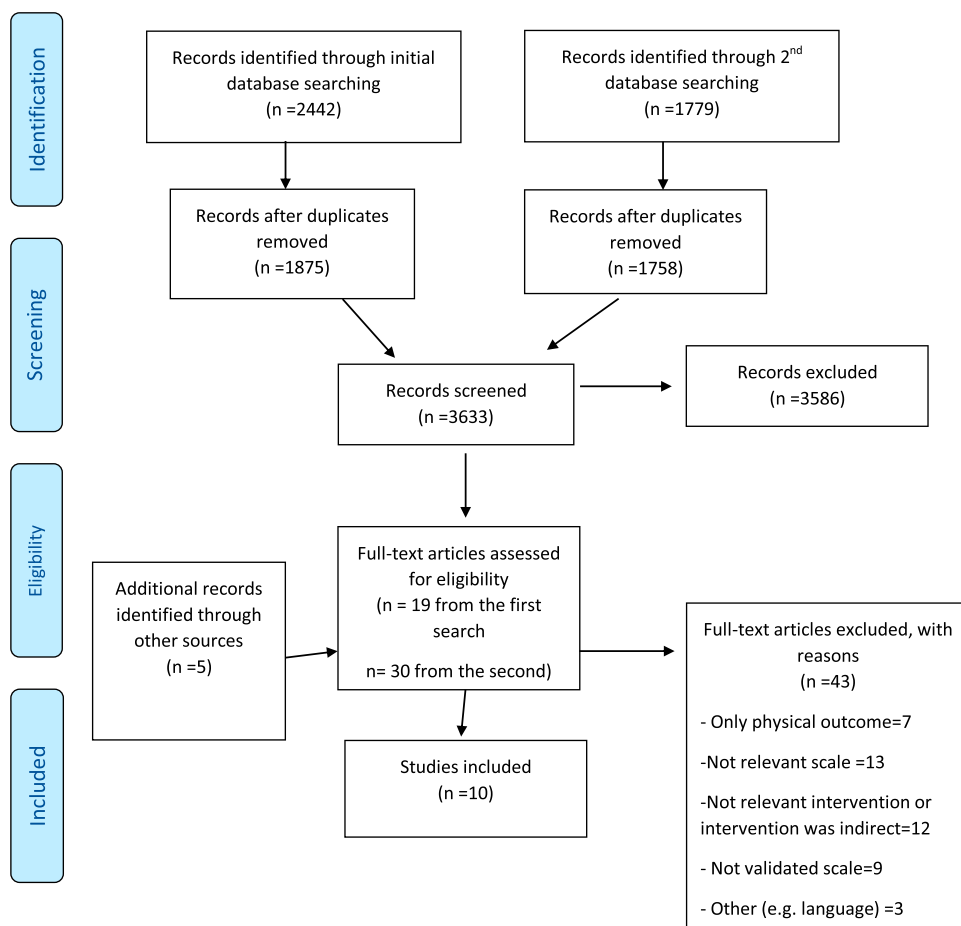
Two methodological quality assessment tools were used to evaluate the selected studies. The Cochrane Handbook for Systematic Review of Interventions (Higgins et al., 2019) was used to assess the methodological quality of the randomised clinical trial (RCT) studies. This tool assesses six domains: selection bias; random sequence generation and allocation concealment, performance bias; blinding of participants and personnel, detection bias; blinding of outcome assessment, attrition bias; incomplete outcome data, reporting bias; selective reporting (see Table 2). Articles were accordingly categorised as either low risk (+), high risk (–) or unclear risk (?). The Hawker et al. (2002) quality assessment tool (2002) for qualitative and quantitative studies was used to evaluate the quality of non-randomised controlled studies. The Hawker et al. (2002) tool assesses nine domains: abstract and title, introduction and aim, method and data, sampling, data analyses, ethics and bias, results, transferability or generalisability, implication, and usefulness. Each domain is rated as either good, fair, poor or very poor, and can be applied to both qualitative and quantitative studies (See Table 3).

The grading of recommendations assessment development and evaluation (GRADE) system was utilised in addition to the Cochrane and Hawker tools to assess the quality of included studies, which provides grades of high, moderate, low and very low. When the grade of the included studies is assessed as high, this could confidently mean that the true effect lies close to that of the estimate of the effects. A moderate confidence in the effect estimates moderately that the true effects are likely to be close to the effect estimate, but there is a possibility that it is substantially different. When confidence in the effect estimate is limited, it is indicated as low, whereby the true effect may be substantially different from the effect estimate. Very little confidence in the effect estimate is graded as very low, whereby the true effects are likely to be substantially different from the effect estimate.

## **Results**

### ***Study selection***

Figure 1 presents the flow chart diagram which represents the process of study selection. 2442 citations were yielded from the first database search. After duplications were removed, 1875 records were screened by reviewing the titles/ abstracts. In the updated search in 2022, the titles/abstracts of a further 1779 references were reviewed after removing duplicates. After screening from both time points, 49 studies were deemed to be potentially relevant and full texts were reviewed. Finally, ten studies were selected to be examined in regard to the research questions – these being Aslami et al. (2016), Hosseini et al. (2013), Nasiri et al. (2017), Hamsyah and Subandi (2017), Ghorbani et al. (2016), Ijaz et al. (2017), Bozorgzadeh and Grasser (2022),



**Figure 1.** PRISMA flow diagram.

Bahadorani et al. (2021), Wani and Singh (2019), and Gul and Jahangir (2019). Five of these studies were randomised clinical trials, while five were non-randomised quantitative studies and one was a mixed-method study.

### Study characteristics

Table 1 summarises the characteristics of the selected studies. All of the studies were published between 2007 and 2022. Although the search was conducted in English and Turkish, no studies were found in Turkish. Most of the studies were conducted in Iran (4), others were conducted in Pakistan (2), United States (2), Indonesia (1) and India (1). Anxiety was measured by different scales in each of the randomised clinical trial (RCT) studies and other studies – for example, Hosseini et al. (2013) and Gul and Jahangir (2019) used the Hamilton Anxiety Scale (HAS; Hamilton, 1959), Aslami et al. (2017) used the Beck Anxiety Inventory (BAI; Beck et al., 1988) and Nasiri et al. (2017) used the Hospital Anxiety Depression Scale (HADS; Zigmond & Snaith, 1983).

Other measures of mental health, well-being, anxiety and depression included: Psychological Well-being Scale (Ryff, 1989), the Satisfaction with Life Scale (Diener et al., 1985),

**Table 1.** Main characteristic of the selected studies.

Article	Year	Country	Age	Sample size	Purpose	Study design	Intervention/spiritual practices
Wani and Singh	2021	India	14–37	N = 45	To evaluate the effect of Islamic psycho-spiritual therapy in managing craving, withdrawal symptoms, and mental health problems among cannabis users.	Quantitative Study	Islamic Psycho-Spiritual Therapy (for 40- days such as, repentance, prayer, mindful meditation, reading Quran, auto suggestion and psycho-education)
Bozorgzadeh and Grasser	2022	United States	18–65	N = 45	To evaluate the effect of Sufi Psychology practice in therapy.	Quantitative Study	Heart-Centered Paradigm of Sufi Psychology (Tamarkoz, Spiritual Stories, arts, music, movement, poetry, etc.)
Bahadorani et al.	2021	United States	18–30	N = 103	To assess the effect of Tamarkoz (Sufi meditation)practice on students mental and psychical health.	Quantitative Study (RCT)	Tamarkoz, (a Sufi meditation) Mindfulness Based Stress Reduction Programme
Gul and Jihangir	2019	Pakistan	15–60	N = 100	To evaluate the effects of Mindfulness- Based Stress reduction program (MBSRP) and Sufi meditation (SM) in lower level of anxiety.	Quantitative Study	and Sufi Meditation Mindfulness in Salah (prayer)
Ijaz et al.	2017	Pakistan	16–30	N = 174	To identify the association between mindfulness in salah (prayer) and the mental health of individuals who offer salah prayer in mindfulness and those who offer without mindfulness.	Quantitative Study	
Hamsyah and Subandi	2017	Indonesia	22–71	N = 51	To examine the relationship between subjective well-being and zikr intensity.	Quantitative and Qualitative Study	Dzikir Intensity Scale (Dzikir practice wirid and prayers by pronouncing tauhid, asma'ul husna, sholawat)
Ghorbani et al.	2016	Iran	Mean 23.8	N = 296	To examine the link between Muslim experimental religiousness and better mental health.	Quantitative Study	Muslim Experiential Religiousness measure of spirituality.
Nasiri et al.	2017	Iran	25–65	N = 80	To assess the effect of Islamic praise (Zikr) on patients' anxiety after coronary artery bypass graft (CABG) surgery.	Quantitative (RCT) Study	Islamic praise (Zikr) Mindfulness based on the Islamic-spiritual schemas
Aslami et al.	2016	Iran	Not Stated	N = 90	To compare the efficiency of mindfulness based on Islamic spiritual schemas and group cognitive behaviour therapy on the reduction of anxiety and depression among pregnant women.	Quantitative Study	
Hosseini et al.	2013	Iran	44–75	N = 70	To evaluate the effect of spiritual/religious training intervention on anxiety in Shia Muslim individuals scheduled for CABG.	Quantitative (RCT) Study	Islamic supplication (Zikr)

and the RAND Mental Health Inventory (Ijaz et al., 2017). Other secondary outcomes included Islamic Sufi practices, for example, Ijaz et al. (2017) used the Islamic Religious Education Scale, the Salah Education Scale and the Mindfulness in Salah Scale. Bozorgzadeh and Grasser (2022) also used the Clinically Adaptive Multi-dimensional Outcome Scale (Sanders et al., 2017), the Clinical Outcomes in Routine Evaluation (Barkham, Mellor-Clark, et al., 2010), the Perceived Stress Scale (PSS; Cohen et al., 1983), the Herth Hope Index (Herth, 1992), and the Brief Resilience Scale (BRS; Smith et al., 2008) to assess patients' self-reported levels of distress and psychopathology.

### **Interventions**

All of the RCTs, apart from Bahadorani et al. (2021), used *zikr*- which is a form of Islamic meditation in order to remember Allah- as an intervention (Hosseini et al., 2013; Nasiri et al., 2017). Bahadorani et al. (2021) used *tamarkoz* – Sufi meditation as an intervention. Bahadorani et al. (2021) has been used Sufi based practices; *Tamarkoz* regarding a form of deep breathing, heart concentration, meditation as an art of self-knowledge. Aslami et al. (2017) compared the effectiveness of mindfulness-based practice on Islamic-spiritual schemas and group cognitive-behaviour therapy in relation to the reduction of anxiety and depression. Gul and Jehangir (2019, 2021) also compared two different types of meditations; a Mindfulness Based Stress Reduction programme and Sufi meditation. Hamsyah and Subandi (2017) applied *zikr* as an intervention in a mixed-method study. Notably, some details of the interventions from the quantitative and mixed methods studies were not reported. These interventions failed to be conveyed in sufficient detail as it is not clarified who delivered the intervention or its duration. As such, these aspects are not included in this review.

Bozorgzadeh and Grasser (2022) introduce Sufi psychotherapy as a practice and experiential by providing data from 45 patients of three Sufi Psychology trained therapists at separate private practice in Dallas, Houston and Chicago. The Sufi psychotherapy practices includes *Tamarkoz* Sufi practices which the participants received one lecture and one meditation practice per week during the experiment. *Tamarkoz* Practice provides an "Understanding of the principles, basic beliefs, and goals of Sufism, and the role *Tamarkoz* plays in achieving the aim of practical Sufism, which is self-knowledge" (Bozorgzadeh & Grasser, 2022, p. 9). The *Tamarkoz* practice starts with light stretches then mind relaxation and deep breathing exercises. *Movazeneh*, which is defined as a unique *Tamarkoz* method includes specific postures and slow motion movement and balance the flow of energy, is provided as a following step finalising with deep relaxation, visualisation, and heart concentration, which focuses on the heartbeats (Bozorgzadeh & Grasser, 2022). Although relationship with distress was significant within-person variation in the aforementioned outcomes and change over session in these variables significantly differed by participant. Overall, the changeover session indicated decreases in these facets of distress. Wani and Singh (2019) used the Islamic psycho spiritual therapy in managing withdrawal symptoms, and mental health problems among cannabis users.

### **Page quality assessment**

Table 2 summarises the quality assessment of the included RCTs. Overall, most of the RCTs were of low methodological quality, while one of the studies was rated as of moderate methodological quality (Nasiri et al., 2017). Two of the three studies were found to be of low risk for selection bias (Aslami et al., 2017; Nasiri et al., 2017). The allocation



**Table 2.** Assessment of bias for RCT.

Author	Random Sequence Generation	Allocation Concealment	Blinding of participants and personnel	Blinding of outcome assessment	Incomplete outcome data (short term 1 day – 6 weeks)	Selective reporting	Total
Bahadorani et al. (2021)	–	–	N/A	?	+	+	2/7
Gul and Jahangir (2019)	+	?	N/A	?	?	–	1/7
Nasiri et al. (2017)	+	+	?	?	+	–	3/7
Hosseini et al. (2013)	+	?	N/A	?	+	–	2/7
Aslami et al. (2017)	+	?	N/A	?	?	–	1/7

concealment was considered unclear in all studies. The majority of the studies were graded as low risk for performance and reporting bias except for Hosseini et al. (2013), which was categorised as having an unclear risk due to the lack of details provided. Detection bias was considered unclear in most studies except for Nasiri et al. (2017) which was graded as having a low risk due to the blinding assessment used. Attrition bias was reported as having a low risk in all studies. The most common reasons for low scores were a lack of blinding of participants and unclear risk of selective reporting of outcomes. Insufficient information on whether outcome assessments were conducted blind to group membership was also a reason for low scores.

The full details of the risk of bias assessment in each of the non RCT studies is presented in Table 3. The abstract and title of all of the studies were good, with a structured abstract with full information and a clear title provided in each study. The data analysis results of most of the studies were good. The exception to this was Hamsyah and Subandi (2017), which was ranked as fair due to the lack of some information and poor in relation to its introduction and aim due to the unclear research question held in the study. While the ethics and bias of the studies were fair for most of the studies, the transferability and generalisability and the implications and usefulness domains were graded differently for each study. Overall, the studies were considered as good and fair for most of the domains, but Hamsyah and Subandi (2017) and Ijaz et al. (2017) were graded as poor for the transferability or generalisability and implication and usefulness domains due to the lack of description as to the context/setting. Overall, most of the studies were similar and of moderate quality, with little difference between studies in terms of quality.

## Outcomes

*Anxiety:* Anxiety was a primary outcome in four of the RCTs (Aslami et al., 2017; Gul & Jahangir, 2019; Hosseini et al., 2013; Nasiri et al., 2017) and was measured by the HADS, BAI or the HAS. Three trials showed a significant difference post-intervention between the control group (who received usual care) and the intervention group on measures of anxiety (Gul & Jahangir, 2019; Hosseini et al., 2013; Nasiri et al., 2017). One of the three trials on Sufi practices saw no differences in the treatment arms (Nasiri et al., 2017). In this study the outcomes demonstrated almost no difference between the trial arms and with no statistically significant differences.

*Depression:* One trial measured depression in addition to anxiety and found a significant difference between the mean scores of anxiety and depression in the intervention

**Table 3.** Assessment of bias for quantitative studies and qualitative studies (description of the Hawker et al. (2002) tool for the methodological quality of qualitative and quantitative studies).

Author (year)	Abstract & title	Introduction & aim	Method & data	Sampling	Data analyses	Ethics& bias	Results	Transferability or generalisability	Implications & usefulness
Ghorbani et al. (2016)	Good	Good	Fair	Good	Good	Fair	Good	Fair	Good
Hamsyah and Subandi (2017)	Fair	Poor	Fair	Good	Fair	Fair	Fair	Poor	Poor
Ijaz et al. (2017)	Good	Fair	Fair	Fair	Good	Fair	Fair	Poor	Poor
Bozorgzadeh and Grasser (2022)	Good	Good	Fair	Good	Fair	Fair	Good	Fair	Fair
Wani and Singh (2019)	Good	Good	Fair	Good	Fair	Good	Good	Fair	Fair

group and control group ( $p < .001$ ) (Aslami et al., 2017). In this study the Mindfulness-based Islamic-spiritual schemas were used as an intervention in comparison with group cognitive behaviour therapy. The BAI was used to assess anxiety levels during the participant selection process. The intervention group received mindfulness-based Islamic spiritual schemes, while the control groups received cognitive behaviour therapy. The mean of anxiety and depression scores decreased in the intervention group, but increased in the control group.

*Perceived stress:* Bahadorani et al. (2021) found that a *Tamarkoz* (Sufi mindfulness) intervention lowered perceived stress compared a waitlist control group and general stress management group. This study showed that the group receiving the *Tamarkoz* intervention reported lower scores for stress than both control groups, but the difference was significantly only for the waitlist control group ( $t(27) = 2.98, p = .009$ ) in the second wave. For the third wave, the *Tamarkoz* group was significantly different from both the waitlist group ( $p = .003$ ) and the stress management group ( $p = .008$ ). Bozorgzadeh and Grasser (2022) also found that the intervention of Sufi Psychology sessions lowered perceived distress significantly when it was measured immediately after compared to before sessions.

*Subjective Well-Being:* Hamsyah and Subandi (2017) measured subjective well-being and zikr, with the results of the quantitative statistical analyses being significant and demonstrating a 33.64% contribution to the participants' happiness. ( $r = .58, p < .01$ ) as measured on the Satisfaction with Life Scale, Positive and Negative Affect Scales, and Dzikir Intensity Scale. The qualitative aspect of Hamsyah and Subandi's study (2017) also reported an increased level of subjective well-being after practising zikr. The factors potentially implicated in these results were social interaction, health, welfare and culture. The qualitative data illustrated that dzikir practice of the Sholawat A'dzom Dzikir Congregation had an impact on the aspects of subjective well-being of the subjects, such as life satisfaction and domination of positive affect over negative affect in the subject's lives.

*Other well-being variables.* Ghorbani et al. (2016), in looking at religiousness and its association with mental health, described research outcomes pertaining to integrative self-knowledge, mindfulness, self-control, death anxiety and satisfaction with life (mental health). The study found that partial correlations of Muslim Experiential Religiousness ( $p < .05$ ) with religious ( $p < .01$ ) and psychological functioning ( $p < .001$ ) after controlling for age. Muslim experiential religiousness correlated positively with integrative Self-knowledge and Self-Control.

Ijaz et al. (2017) examined mindfulness in salah prayer and its association with mental health. The study results demonstrated that mean scores were significantly higher for those who offered prayer with mindfulness ( $p < .01$ ) than for those who did not offer prayer with mindfulness as measured on the RAND Mental Health Inventory. The mean score on mental health was also higher for those who offered prayer ( $p < .05$ ) than for those who did not offer prayer as measured by RAND Mental Health Inventory which is also measure mental health and other three variables; three self-reported measures were constructed – included the Islamic Religious Education Scale, the Salah Education Scale and the Mindfulness in Salah Scale. The study indicated a significant positive correlation with all aspects of mental health and with mindfulness in salah prayer ( $p < .02, p < .05$ ).

## Discussion

The focus of the review was to explore the current state of evidence on the relationship between Sufi spirituality and mental health and how Sufi practices might promote well-being. To the best of our knowledge, this is the first systematic review exploring the relationship between Sufi practice and mental health. We found that Sufi practices in relation to wellbeing are researched little in the literature with to date only three trials, six quantitative studies, and one mixed-methods study retrieved through systematic searches.

It is evident from the data that *zikr* practices appear to be the most popular practices used in research as an intervention. Although most of the studies in this review found statistically significant effects identified between *zikr* spiritual intervention and anxiety, depression, or well-being, due to the low quality of the studies, we were not able to make a conclusive statement based on this research. Some evidence is presented that *zikr* reduces anxiety in the pre-and post-operation stages of CABG surgery (Hosseini et al., 2013; Nasiri et al., 2017). Cognitive behaviour therapy and mindfulness-based Islamic schema were also shown to have a positive effect on anxiety and depression levels (Aslami et al., 2017; Bahadorani et al., 2021; Gul & Jahangir, 2019, 2021).

Most studies included in this review explored the effects of spirituality on the mental well-being of the patients in clinical settings, concluding positive effects on the patients' well-being. For example, Hosseini et al. (2013) and Nasiri et al. (2017) found a positive impact of spiritual/ religious intervention on patients' mental well-being by reducing anxiety and stress after/during surgery.

The findings of this review are consistent with other research which has shown that other types of spirituality have been shown to enhance mental health and well-being. For example, Rosendahl et al. (2012) designed a study on the effectiveness of routinely applied psychological or spiritual interventions for patients undergoing bypass surgery, concluding with small (but nonsignificant) effect sizes for several psychological outcomes (anxiety, depression, and positive mood) and statistically significant treatment effects for negative mood. Hosseini et al. (2013) also found that spiritual/ religious training can reduce anxiety in Muslim patients undergoing coronary artery bypass graft surgery. While Rosendahl et al. (2009) used Christian prayer (the Lord's prayer) and the presence of God (according to the patient's belief) as a spiritual intervention, Hosseini et al. (2013) used Islamic supplicant (*zikr*) and the Qur'an on Muslim patient.

Studies in different spiritual/ religious interventions have also shown similar findings regarding an individual's well-being. A study conducted on patients who are living with heart failure found that religion and spirituality were inversely linked with depressive symptoms (Sacco et al., 2014). They also found that religion and spirituality were also related to less death anxiety (Sacco et al., 2014). Clark and Hunter (2019) reviewed the literature systematically on Advanced Heart Failure, finding the correlations between spirituality and several mental health and quality of life. Additionally, Bahadorani et al. (2021) used the Sufi practice as an intervention to reduce stress among university students, and they found significant increases in positive emotions and daily spiritual experiences and reductions in perceived stress and heart rate.

The findings of this review and other relevant reviews converged on the effectiveness of spirituality and religion on mental health and well-being. However, the findings of this

review are also similar to another recently published systematic review which looked at religious/ spiritual practices (more broadly) and their effects on mental health, and which also concluded current research was methodologically limited (Malviya et al., 2022). The findings from this review also highlight that intervention and outcomes are different in across the body of research; therefore, it is hard to draw conclusions regarding the overall effectiveness of Sufi practices on specific mental health outcomes. In general, a positive effect was noted in response to the interventions. Sufi practices reportedly decreased anxiety, depression, and perceived stress and had a positive effect on mental health and well-being outcomes. However, methodological quality of the included literature was moderate to poor, to these conclusions must be interpreted cautiously.

### ***Strengths and limitations of the included studies***

The quality of the trials included in the review is quite low due to the lack of some pertinent details – such as when and how the trials were conducted. None of the included studies were rated as being high quality. For example, the study of Hosseini et al. (2013) is very unclear as the process is hard to follow due to the lack of the timings of the intervention being set out. Moreover, an unclear explanation is given as to the sampling process – with no added flow diagram being presented and the sampling number being unaccounted. There are problems associated with the analyses by Nasiri et al. (2017) as discussed above witnesses analyses issues. More details should have been included and the trial design should have been followed otherwise the intervention shall only result in an immediate and temporary effect. The study of Aslami et al. (2017) is also difficult to follow in regard to its study method and analyses. The study is described as an RCT and semi-experimental, yet it is a controlled study that the randomisation process was not clearly described. There is also an issue in the delivery of the mean and sd. the Mean 4.0 and sd 6.0 has an effect size of .66 (not 6.0). Furthermore, no study flow diagram is provided, and the explanation of the samples is unclear. The study of Hamsyah and Subandi (2017) is very low-quality as no clear research question is presented and only small samples were used. Ghorbani et al. (2016) and Ijaz et al. (2017) are cross sectional studies and have a moderate quality. Therefore, it is hard to conclude the study in a certain discussion as the studies did not have high quality. Consequently, there remains a need for an ongoing review of Sufi practice and different mental health variables to understand, in depth, the relationship between Sufi/Islamic spiritual practice and mental well-being.

### ***Strengths and limitations of this review***

We employed a comprehensive search strategy, including both Turkish and English language publications across six databases. The study was targeted to review all available peer-reviewed published evidence. We also searched all the reference lists of included studies to identify potential further relevant research. We included independent researchers in the screening of potential studies and quality appraisals.

Despite these strengths, several limitations are identified in relation to this study. As the intervention was limited to English and Turkish-language sources, studies published

in other languages might exist and have not been considered here. This might be particularly important to the number of studies as these types of interventions might likely be conducted in non-English or non-Turkish speaking countries. The study is limited only to Sufi practices within Islamic spirituality (such as *zikr*, prayer and *muraqabah*). We have chosen a very narrow version of such practices (i.e., Sufi practice) and therefore further research might be adapted to Islamic practices in relation to different mental health outcomes. A meta-analysis could not be conducted due to the heterogeneity of the study methods.

### ***Implications for practice and research***

The results of this review emphasise the potential of spiritual intervention in helping mental well-being – such as in reducing anxiety and depression among Muslim patients. However, it is hard to definitively reach this conclusion due to the poor quality of the included studies. One study suggests promising results that *zikr* could be beneficial prior to and following CABG surgery, thereby acting as a non-pharmacological, low cost and non-invasive method which lacks side effects, but more specific evaluation of this intervention is required before recommendations should be made. Overall, *zikr* might have a positive impact on patients undertaking CABG surgery and pregnant women, while it may allow healthy individuals to improve their mental well-being and to reduce potential anxiety and depression. This review has highlighted that more robust research is needed as to Islamic spirituality/Sufi practices on mental health. The undertaking of similar studies including other mental health variables is needed to develop more appropriate outcome measures and enable comparisons to be made between different types of Sufi practice. Sufism will allow to utilise religion, spirituality and culture into psychotherapy which in Islam, religion and spirituality are not separated as you cannot have one without the others (Murad & Gordon, 2002). Future research should also consider how Sufi practices are implemented among Muslim and non-Muslim populations and how they may be practised differently between individuals. Further, well designed, fully powered studies are needed using the Sufi practices, as well as research investigating its effects when adapted to other cultures. More research is also required to identify which specific Sufi practices are more effective in the Muslim population in the West and Muslim countries.

### **Conclusion**

Sufi spiritual practices have been evaluated as a means of reducing anxiety and depression in patients undergoing surgery or during pregnancy, with this also being shown with psychological therapy modified to contain Islamic and indigenous themes (i.e., *zikr*). However, due to the methodological limitations in the studies – such as variations in the age groups, mental health problems, outcome measures, intervention timings and study methods – it is not possible to conclude that Sufi practices are effective in improving mental well-being. Further, more rigorous research is needed as to the effectiveness of Sufi practice towards improving mental health. This systematic review has also shown that all of the studies identified related to Sufi practice and mental well-being were of moderate to low quality.

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