

Cross-Sectional Study on the Therapeutic Benefits of Muslims' Daily *Salaat*

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ABSTRACT

The physical and mental activities associated with the performance of Muslims' daily *Salaat* are believed to offer various physiological and mental health benefits. The study aimed to empirically investigate these potential benefits through a cross-sectional survey of 468 Muslim participants in Lagos and Kwara States, Nigeria. A structured questionnaire, validated by experts in exercise physiology and Islamic studies, was used for data collection. The results of the study indicate a significant positive correlation between regular *Salaat* performance and specific health outcomes. Participants who regularly performed *Salaat* reported improved muscular fitness ($B = 0.015$, $SE = 0.034$, $t = 4.313$, $p < 0.05$) and enhanced hip, knee, and ankle joint flexibility ($B = 0.024$, $SE = 0.046$, $t = 3.716$, $p < 0.05$). These findings suggest that the repetitive physical movements involved in *Salaat*, such as bowing and prostration, can contribute to increased muscle strength, flexibility, and joint health. While the study did not find a significant association between *Salaat* and cardiorespiratory endurance ($B = 0.148$, $SE = 0.34$, $t = 0.313$, $p > 0.05$), it did reveal a significant positive correlation between regular *Salaat* performance and improved mental health. This finding aligns with the notion that the ritualistic nature of *Salaat*, coupled with its meditative aspects, can contribute to reduced stress, anxiety, and improved overall mental well-being. Conclusion, the findings of the study provided empirical evidence supporting the potential health benefits of regular *Salaat* performance. The study recommends individuals to practice *Salaat* regularly for physical and mental health benefits. Healthcare providers should incorporate *Salaat* into health education. Future research should explore the specific mechanisms of *Salaat*'s impact on health through quantitative and qualitative studies, including controlled trials. Religious leaders should promote *Salaat*'s health benefits and organise wellness programmes.

Keywords: daily *salaat*, mental health benefits, physiological benefits, therapeutic exercise

INTRODUCTION

Exercise is any planned bodily activity that is performed to improve or maintain physical fitness, health, and well-being. The importance of exercise to overall health and well-being cannot be overemphasised. Exercise is important for physical, mental, and social development and overall well-being, as well as the emotional and psychological development of all individuals (Taiwo, 2022a). The role of exercise is not only to promote health but also to prevent illness that is associated with insufficient physical activity. Hence, exercise can be used in the management of most of the well-known metabolic and chronic diseases (Taiwo, 2022b).

Salaat is a form of exercise that is associated with spiritual and therapeutic benefits. The activities in *Salaat* such as standing, bending, and bowing can provide health benefits similar to exercise and these activities are comparable to performing a gentle moderate-intensity exercise (Ibrahim *et al*, 2012).

Salaat is an Arabic word that literally means to pray, it is one of the five pillars of Islam, which are the fundamental principles of the faith. It is the second pillar of Islam and it is compulsory for each Muslim to observe five daily *salaat* at the right time except for those with legitimate reasons. A Muslim is required to perform the *salaat* five times a day at specific times: at dawn (*fajr*), midday (*dhur*), mid-afternoon (*asr*), sunset (*maghrib*), and nightfall (*ishai*). The *salaat* involves a series of physical movements, recitation of specific prayers and verses from the Qur'an, and a moment of silence and reflection. The purpose of the *Salaat* is to connect with God and express devotion, and it is considered a form of worship (Zahed & Ghezalbash, 2018). For many Muslims, the *Salaat* is an important part of their daily routine and is seen as a way to maintain a spiritual connection with Allah.

There are several verses in the Qur'an that discuss the importance of Salaat. One such verse is Surah 2:43, which states: "Establish prayer and be not among the neglectful." This verse emphasises the importance of regular prayer as a religious obligation and a way to avoid neglecting one's spiritual duties. Another verse, Surah 20:14, states: "And I did not create the jinn and mankind except to worship Me." This verse confirms that the purpose of human existence is to worship Allah, and the Salaat is one way to fulfil this purpose. Additionally, Surah 29:45 states: "Recite, [O' Muhammad], what has been revealed to you of the Book and establish prayer. Indeed, prayer prohibits immorality and wrongdoing, and the remembrance of Allah is greater. And Allah knows that which you do". This verse highlights the role of the Salaat in promoting morality and righteousness and the importance of remembering Allah during the prayers.

While the primary purpose of the five daily prayers, is to remember and worship Allah, the physical movements involved in the Salaat can also provide some potential benefits for flexibility and mobility. The Salaat involves a series of physical movements, including standing, bowing, and prostrating, which can help to improve flexibility in the spine, hips, and legs (Kamran, 2018). These movements can also help to improve circulation and range of motion in the joints (Kamran, 2018). In addition, the Salaat can provide a form of low-intensity physical activity, which can help to improve overall physical fitness. For older individuals or those with mobility challenges, the Salaat can provide a gentle form of exercise that can help to maintain or improve flexibility and mobility. While the primary purpose of the Salaat is spiritual, the physical movements involved can also have some physical health benefits (Hassankhani, Pourtaieb & Bagherian, 2017).

Furthermore, the daily practice of Salaat can also promote overall physical fitness and well-being. A study done on the energy cost of two and four Rak'ah prayers in 32 male and female adults, found that Salaat has a positive effect on metabolic function. For an 80 kg person, the energy cost of daily prayers was about 80 calories per day and could be considered a form of physical activity that enhances fitness (Sarkingobir, 2022). In addition, the focus on breath control and mindfulness during Salaat can promote relaxation and stress reduction, which can have positive effects on mental health. Furthermore, the social support and community connection that often accompany the practice of Salaat can also have mental and emotional health benefits. By setting aside time each day for physical activity and spiritual contemplation, Muslims may be more likely to prioritise their physical health and make healthy lifestyle choices, which could in turn improve cardiorespiratory endurance. In conclusion, while the specific effects of Salaat on physiological and mental health are not well studied especially in the Nigeria population, the practice of Salaat may have some potential benefits in this regard. Therefore, this study aimed at evaluating the therapeutic roles of Muslim daily Salaat with a focus on physical and mental health benefits.

METHODS

A cross-sectional research design was adopted for the study, the design allows researchers to assess the prevalence and potential health benefits of Salaat as a form of therapeutic exercise across different demographics within the Muslim population at a single point in time. This approach is suitable for capturing the associations between Salaat practices and various health or wellness outcomes, such as flexibility, mental well-being, or physical fitness, without needing a longitudinal or experimental setup.

A purposive sampling technique was used to select 468 Muslims who participated in the study. The participants were selected from Kwara State and Lagos State. The choice of Kwara and Lagos State was due to the large population of Muslims in these two states. The criteria for inclusion include; being a Muslim, and consistently observing five daily Salaat for more than six months. Structured questionnaire tagged Health Benefits of Daily Salaat Questionnaire validated by experts in Exercise physiology and Islamic studies with a reliability coefficient of 0.76 was used for data collection. The questionnaire was divided into three sections; Section A focused on the demographic characteristics of the participants such as age, gender, place of residence, and duration of consistent observance of daily Salaat. Sec-

tion B was on perceived physiological benefits of daily Salaat such as flexibility benefits, cardiorespiratory benefits, and musculoskeletal benefits. Section C assessed the mental health benefits of daily Salaat.

Before the administration of the questionnaire, the selected participants were briefed on the objective of the study and only those who volunteered by signing the informed consent were considered for inclusion in the study. 468 participants were selected from those who volunteered to participate in the study based on inclusion criteria. The questionnaire was administered to the selected participants and collected on the spot to ensure 100% retrieval of the questionnaire distributed.

The data collection exercise lasted for a period of two weeks, thereafter data clearing was done to remove incomplete entries, Participants whose place of residence is outside the study areas, non-Muslims, and Muslims who have not observed the daily Salaat consistently for six months were also removed before analysis was done. Data collected were coded and subjected to statistical analyses of frequency count, simple percentage, and chi-square at 0.05 level of significance using the statistical package for social sciences (SPSS) version 24.0.

RESULTS

Table 1: Demographic characteristics of the respondents

Demographics	Variables	Frequency	Percent
Gender	Male	256	54.7
	Female	212	45.3
Age	16 - 30	224	47.9
	31 - 45	196	41.9
	46 - 60	42	8.
	Above 60	6	1.3
Duration of observing <i>salaat</i>	Less than a year	19	4.1
	1 - 5 years	38	8.1
	6 - 10 years	83	17.7
	11 - 15 years	56	12
	Above 15 years	291	62.2

Table 1 presents the demographic characteristics of the respondents. 54.7% of the respondents were male while 45.3% were female. On the age of the respondents, 47.9% of the respondents were between the age of 16 - 30 years, 41.9% were between 31 - 45 years old, 9% were between 46 - 60 years old and 1.3% were above 60 years old. On the duration of observing *salaat*, 8.1% had been observing Salaat consistently for less than a year, 13.7% had been observing *salaat* for 6 - 10 years consistently, 12% had been observing *salaat* for 11 - 15 years, and 62.2% had been observing Salaat for more than 15 years.

Table 2: Multiple regression analysis of the association between *salaat* on the physiological health of Muslims

Model B	Unstandardized coefficients		Standardized coefficients	t	Sig.
	Std. error	Beta			
(Constant)	1.108	.239		4.626	.000
Flexibility	1.038	.051	.035	4.751	.015
Cardiorespiratory fitness	0.010	.034	.015	0.313	.055
Muscular fitness	.919	.037	.148	3.189	.002

a. Dependent Variable: Salaat

Table 2 presents the association between regular observance of Salaat and the physiological health of Muslims. A multiple regression analysis was conducted to examine the association between observance of Salaat and the cardiorespiratory fitness, flexibility, and fitness level of Muslims. Observance of Salaat was found to be significantly associated with flexibility ($B = 0.035$, $SE = 0.051$, $t = 4.751$, $p < 0.05$) and muscular fitness ($B = 0.148$, $SE = 0.037$, $t = 3.189$, $p < 0.05$). However, observance of Salaat was not significantly associated with cardiorespiratory fitness ($B = 0.148$, $SE = 0.34$, $t = 0.313$, $p > 0.05$). The overall model was statistically significant ($F(3, 462) = 3.694$, $p < 0.05$).

Table 3: Multiple regression analysis of the association between *salaat* on the mental health of Muslims

Model B	Unstandardized coefficients		Standardised coefficients	T	Sig.
	Std. error	Beta			
(Constant)	1.521	.213		7.150	.000
Mental clarity	.907	.025	.013	4.588	.033
Mental stability	.024	.046	.024	3.716	.041
Concentration	.049	.050	.045	6.974	.030

a. Dependent Variable: Salaat

Table 3 presents the association between regular observance of Salaat and the mental health of Muslims. A multiple regression analysis was conducted to examine the association between observance of Salaat and mental clarity, mental stability, and concentration of the respondents. Observance of Salaat was found to be significantly associated with mental clarity ($B = 0.013$, $SE = 0.025$, $t = 4.588$, $p < 0.05$), mental stability ($B = 0.024$, $SE = 0.046$, $t = 3.716$, $p < 0.05$), and improved concentration ($B = 0.045$, $SE = 0.50$, $t = 6.974$, $p > 0.05$). The overall model was statistically significant $F(3, 464) = 2.421$, $p < 0.05$.

DISCUSSION

The result of this study reveals that there is a significant association between observance of Salaat and physiological health such as flexibility, cardiorespiratory fitness, and muscular fitness of the respondents. The result reveals that a majority of participants who observed five daily Salaat regularly reported better flexibility compared to those who did not observe the daily Salaat regularly. The result of this study agrees with Jannati (2021) who reported that stretching exercise in the form of Islamic prayer increases lower back flexibility.

The majority of the respondents reported that physical activities like standing, bending, and bowing during Salaat help increase flexibility and reduce the occurrence of back pains. The physical activities involved in performing Salaat through the wide range of motion that occurs at the hip joint, the kneel joint, and the ankle joint increase the flexibility of these joints. Most of the joints and muscles are stimulated and exercised during the activity of Salaat. A Muslim who performs prayers five times a day a night performs about 280 different movements, which are the same as light stretching exercises (Salih, 2007). Stretching exercises are one of the best exercises to increase flexibility. During prayer, many muscles of the body are stretched, and joints move. Regular prayer movements help reduce muscle tension and stretch the muscles of the lower back, thereby preventing muscle injury (İmamoğlu, 2016). The Bowing (*ruku*) posture in Salaat is a very important position biomechanically, during bowing (*ruku*) forward bending occurs at the thoracic and lumbar spine which leads to stretching of the paraspinal muscles and structures. The trunk and the lower extremity are at approximately 90 degrees to each other. The person attempts to look between his toes while adopting this position which results in the activation of deep neck flexors which are usually prone to getting weak. The hip joint is in flexion, and knees are extended and the ankle is at 90° with the lower leg as in standing. The position of the spine and lower extremity is somewhat similar to the slump position, so bowing or *ruku* not only stretches the posterior

musculature of the lower limb, including hamstrings and gastro-soleus, but also, puts a stretch on the dural components (Johnson & Varadharajulu, 2023). Thus, it can be used as an exercise for stretching muscles as well as dura. The shoulders are slightly flexed and the elbows are fully extended, whereas the hands rest on the knees.

During prostration in Salaat, the hip joint is in maximum flexion, the consistent flexion of the hip joint improves the hip flexibility (Jalal, 2021). The stretch felt in the length of the spine as the individual curls the torso over the legs also creates a space between the dorsal surfaces of the vertebra of the spine and aids spinal distraction as well as allowing neural glides and the lengthening of the nerves (Shacklock, 2005). This posture combined with other exercises opens the lower lumbar facet joints and may help to reduce the lower back pain and sciatica can be used to treat spinal stenosis and other degenerative disc diseases (Ji *et al.*, 2003).

Similarly, the results show that consistent performance of Salaat has cardiorespiratory benefits as shown in Muchammad, Tauviqirrahman, Ammarullah, Iqbal, Setiyana & Jamari (2024). During Salaat, Muslims engage in various physical activities, such as standing, bowing, prostrating, and sitting. These movements, when performed consistently over time, can contribute to enhanced cardiorespiratory endurance. A similar result was reported by Pucci and Raskin (2000), they found that the regular performance of Salaat is associated with a decrease in systolic and diastolic blood pressure. This reduction in blood pressure is beneficial for cardiovascular health and may contribute to improved cardiorespiratory endurance (Pucci *et al.*, 2000). Salaat also involves holding specific positions, such as the bending (*Ruku*) and Sujood (prostration), which require muscular endurance. Muscular endurance, especially in the lower back and leg muscles, plays a crucial role in maintaining good posture during Salaat. This increased muscular endurance can indirectly contribute to improved cardiorespiratory endurance.

The result of this study also reveals an association between the regular performance of Salaat and improvement in mental health. Participants who observed Salaat regularly reported better mental health conditions than those who did not observe Salaat regularly. The majority of the participants reported that regular performance of Salaat improves their sense of emotional stability and inner peace, provides a sense of purpose and meaning in their life, improves mental clarity and mindfulness, and concentration. Proper performance of Salaat involves concentration and tranquillity, this concentration helps to relax the brain and the mind. The recitation and meditation during Salaat also have mental health benefits. Another of the unique aspects of Salaat is the deep focus on mindfulness and the connection between the physical and spiritual aspects of the prayer. Regular practice of Salaat encourages mental relaxation and stress reduction, which can positively affect mental health. Besharat *et al.*, (2014) highlighted the role of Salaat in reducing stress and promoting mental well-being (Besharat *et al.*, 2014).

Salaat requires a high level of mindfulness. During prayer, Muslims engage in a focused, meditative state where they recite verses from the Qur'an, praise God, and seek forgiveness. This mindful practice has similarities to mindfulness-based stress reduction (MBSR) techniques. Research has shown that mindfulness practices like MBSR can reduce stress and improve mental well-being (Grossman *et al.*, 2004). Salaat requires a high level of mindfulness. During prayer, Muslims engage in a focused, meditative state where they recite verses from the Qur'an, praise God, and seek forgiveness. This mindful practice has similarities to mindfulness-based stress reduction (MBSR) techniques. Research has shown that mindfulness practices like MBSR can reduce stress and improve mental well-being (Grossman *et al.*, 2004). Many individuals turn to religion and prayer as a coping mechanism during difficult times. Salaat provides a means for individuals to find solace, seek guidance, and cope with stress. A study by Koenig *et al.*, (2001) found that religious practices, including prayer, are often used as a source of comfort and resilience during times of adversity (Koenig *et al.*, 2001).

Al-Gazal (2006) and Ayad (2008) stated that prostration is the only position in which the head is in a position lower than the heart and therefore, receives increased blood supply to the brain, stimulating the brain's frontal cortex. This reduces the chances of brain haemorrhage and headache and helps to reduce high blood pressure (Imamoglu & Dilek, 2016), This surge in blood supply also has a positive effect on memory, concentration, psyche, and other cognitive abilities. A study investigating the alpha

brain activity during prostration reported increased amplitude in the parietal and occipital regions suggestive of parasympathetic elevation, thus indicating a state of relaxation (Doufesh, 2012).

CONCLUSION

The practice of daily Salaat, which is an integral component of the Islamic faith, offers a multitude of physiological and mental health benefits. It combines physical movements, spiritual devotion, and mindfulness, contributing to holistic well-being. Physiologically, Salaat incorporates physical activity, promoting cardiovascular health and muscle fitness. The act of standing, bowing, prostrating, and sitting during Salaat engages various muscle groups and can aid in improving cardiorespiratory endurance.

Mentally, the combination of mindfulness, structured routine, community support, positive affirmations, and coping mechanisms within Salaat can contribute to improved mental well-being. The mindful nature of Salaat, involving deep concentration and recitation of sacred verses, mirrors mindfulness-based stress reduction techniques, promoting stress reduction and mental relaxation. The daily routine offered by Salaat provides a sense of order and discipline, reducing anxiety and fostering stability. The social aspect of congregational prayer provides a source of community and social support, is known to enhance mental health.

Furthermore, Salaat's practice of self-reflection and positive affirmations can bolster self-esteem and self-concept, essential for mental well-being. In times of adversity, Salaat often serves as a coping mechanism, offering comfort and resilience. In essence, daily Salaat offers not only spiritual fulfilment but also a potential path to nurturing mental health. It serves as a unique bridge between spirituality and psychological well-being, enriching the lives of those who practice it with dedication and devotion.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are proposed:

- Regular Salaat practice should be encouraged among individuals to consistently perform their five daily prayers to reap the physical and mental health benefits. With focus on the spiritual and physical aspects of prayer, engaging in mindful movements and deep breathing. Also, participate in congregational prayers to foster social connections and spiritual support.
- Healthcare providers can incorporate information about the potential health benefits of Salaat into their health education programmes. Practitioners should as well conduct more in-depth studies to explore the specific mechanisms underlying the health benefits of Salaat and to identify potential interventions.
- Religious leaders can emphasise the health benefits of regular prayer to encourage greater participation. It can be achieved through establishing programmes that combined physical activity, mindfulness, and spiritual practices to promote holistic well-being.
- Future studies can be conducted in larger-scale quantitatively to further validate the findings of this study and to explore the long-term effects of Salaat on physical and mental health. Also, qualitative studies can be conducted to delve deeper into the subjective experiences of individuals who practice Salaat and to understand the specific mechanisms through which Salaat may impact health and well-being. Randomised controlled trials designs can be conducted to compare the effects of Salat with other physical and mental health interventions.

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