

**COMMUNITY SERVICE APPLICATION OF SPIRITUAL MINDFULNESS
COMBINATION WITH SELF-REGULATION IN REDUCING ANXIETY IN
PNEUMONIA PATIENTS**

**PENGABDIAN MASYARAKAT PENERAPAN SPIRITUAL MINDFULNESS
KOMBINASI SELF-REGULATION DALAM MENURUNKAN KECEMASAN
PASIEEN PNEUMONIA**

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Abstract

Pneumonia, a serious respiratory infection, remains a significant global health challenge in the modern era. This disease not only impacts the physical health of patients, but also often triggers deep anxiety and requires intervention. One form of intervention that can be given is a spiritual approach through mindfulness meditation combined with a self-regulation theory approach to provide positive stimuli in reducing anxiety in pneumonia patients. This community service focuses on implementing a spiritual mindfulness intervention approach combined with self-regulation in reducing anxiety in pneumonia patients. This method is implemented through a series of sessions involving: 1) Introduction to the concept of mindfulness and basic techniques; 2) Integration of spiritual elements according to each patient's beliefs; 3) Self-regulation training, including breathing and relaxation techniques; 4) Daily mindfulness practice with guidance; 5) Group discussions to share experiences and support each other. The characteristics of the participants are an average age of 45.6 years and female gender (60%) is more dominant. The average duration of pneumonia is 14.3 days. Before the intervention, the average score of the patient's anxiety level was 24.8 (indicating moderate anxiety). After being given mindfulness activities, participants showed improvements in their anxiety conditions, the average score was 14.2 (indicating a significant decrease). The combination of mindfulness, spiritual approaches, and self-regulation showed very promising results in reducing anxiety levels in pneumonia patients. This holistic approach combines meditation techniques, spiritual practices, and emotion management strategies for patients.

Keywords: Anxiety; Mindfulness; Pneumonia; Self Regulation; Spiritual.

Abstrak

Pneumonia, infeksi saluran pernapasan serius, masih menjadi tantangan kesehatan global yang signifikan di era modern. Penyakit ini tidak hanya berdampak pada kesehatan fisik pasien, tetapi juga sering memicu kecemasan yang mendalam dan memerlukan intervensi. Salah satu bentuk intervensi yang bisa diberikan adalah pendekatan secara spiritual melalui mindfulness meditation yang dikombinasikan dengan pendekatan teori self-regulation agar memberikan stimulus positif dalam mengurangi kecemasan pasien pneumonia. Pengabdian masyarakat ini berfokus untuk menerapkan pendekatan intervensi spiritual mindfulness kombinasi regulasi diri dalam mengurangi kecemasan pada pasien pneumonia. Metode ini

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diimplementasikan melalui serangkaian sesi yang melibatkan: 1) Pengenalan konsep mindfulness dan teknik dasar; 2) Integrasi elemen spiritual sesuai dengan keyakinan setiap pasien; 3) Pelatihan regulasi diri, termasuk teknik pernapasan dan relaksasi; 4) Latihan mindfulness harian dengan bimbingan; 5) Diskusi kelompok untuk berbagi pengalaman dan saling mendukung. Karakteristik peserta rata-rata Usia 45,6 tahun dan jenis kelamin perempuan (60%) lebih dominan. Rata-rata Durasi Pneumonia adalah 14,3 hari. Sebelum intervensi, skor rata-rata tingkat kecemasan pasien adalah 24,8 (menunjukkan kecemasan sedang). Setelah diberikan aktivitas mindfulness, peserta menunjukkan perbaikan dalam kondisi kecemasan mereka, skor rata-rata adalah 14,2 (menunjukkan penurunan yang signifikan). Kombinasi mindfulness, pendekatan spiritual, dan pengaturan diri menunjukkan hasil yang sangat menjanjikan dalam mengurangi tingkat kecemasan pada pasien pneumonia. Pendekatan holistik ini memadukan teknik meditasi, praktik spiritual, dan strategi manajemen emosi bagi pasien.

Kata kunci: Kecemasan; Perhatian Penuh; Pneumonia; Pengaturan Diri; Spiritual.

INTRODUCTION

Pneumonia, a serious respiratory infection, remains a significant global health challenge in the modern era (Puspitasari *et al.*, 2023). This disease not only impacts the physical health of patients, but also often triggers deep anxiety. This anxiety can have a significant effect, potentially hindering the recovery process and substantially reducing the quality of life of sufferers (Dehghan, Namjoo, Zarei, *et al.*, 2021). Given the complexity of this condition, a treatment approach that focuses only on the physical aspects may not be effective enough (Hasina *et al.*, 2021).

Therefore, in an effort to improve the overall well-being of pneumonia patients, a holistic approach that combines physical care and mental support is crucial. This strategy not only aims to address the physical symptoms of the disease but also to manage the psychological aspects that may arise during the healing process (Oberoi *et al.*, 2020). By integrating various treatment methods that include medical therapy, psychological support, and lifestyle interventions, this holistic approach has the potential to significantly improve treatment outcomes and accelerate the recovery of pneumonia patients (Li *et al.*, 2020).

According to data from the World Health Organization (WHO), in 2022, pneumonia is still the leading cause of death in children under 5 years of age worldwide. It is estimated that around 740,180 children died from pneumonia that year (Solomon *et al.*, 2022). Based on data from the Ministry of Health of the Republic of Indonesia, the prevalence of pneumonia in Indonesia in 2022 reached 4.0% of the total population. This figure shows a decrease compared to the previous year which reached 4.5% (Sutriana, Sitaresmi and Wahab, 2021). In East Java, the prevalence of pneumonia in 2022 was recorded at 3.8% of the total population of the province. This figure is slightly lower than the national average. The largest contributors to cases of pneumonia in East Java are in areas with high air pollution due to the large number of industries, such as in the cities of Surabaya, Sidoarjo and Gresik. The specific service was taken in Gresik Regency because there are not many programs provided at the Gresik Regency Hospital to provide this treatment. Specific data on the prevalence of pneumonia in 2022 is not yet widely available. However, based on the trend of East Java province, it is estimated that the figure is in the range of 3.5-4.0% of the total population of Gresik. Anxiety in patients is recorded as high because since the COVID-19 incident, pneumonia has become a disease feared by

the public, because they have the perception that pneumonia often causes critical conditions and death (Nursalam *et al.*, 2020). Worsening anxiety conditions have an impact on worsening symptoms and giving rise to physical responses in the form of decreased immunity, symptoms of trauma and panic attacks (Puspitasari *et al.*, 2023). This is what prompted the author to carry out community service in order to provide positive interventions for patients.

The high number of pneumonia cases in community service locations is caused by several factors, including unhygienic environmental conditions and poor sanitation, low levels of public awareness about preventing respiratory diseases, limited access to health services and suboptimal nutritional status of the community (Łakuta, 2020; Wu *et al.*, 2021). Several intervention efforts that have been implemented include educating the community about preventing pneumonia through health counselling, providing supplements and vitamins to increase immunity, routine health checks and pneumonia screening and improving environmental sanitation (Collaborators, 2022; Schulte-Frankenfeld and Trautwein, 2022). Although various interventions have been carried out, the results achieved have not been optimal because the level of community compliance in implementing health protocols is still low, changes in healthy living behaviour have not been consistent and psychological and spiritual aspects have not been touched in depth (Ayatulloh, Prayoga and Priyantini, 2024).

Mindfulness, as a practice of full awareness rooted in ancient meditation traditions, has been shown to be very effective in reducing stress and anxiety levels in various medical conditions (Joshi *et al.*, 2021). Recent scientific research shows that regular mindfulness practice can help boost the immune system and speed up the healing process. When combined with a spiritual approach that is in accordance with the individual's beliefs and structured self-regulation techniques, mindfulness has the potential to provide much more comprehensive benefits for pneumonia patients (Salari *et al.*, 2021). Spiritual mindfulness was chosen as an additional intervention considering a holistic approach that involves physical, mental and spiritual aspects in healing. Interventions can increase self-awareness and motivation to maintain health. Helps reduce stress and anxiety that can affect the immune system (Wu *et al.*, 2021). In accordance with the characteristics of a religious community that upholds spiritual values and can be done independently and sustainably without high costs. By combining spiritual mindfulness interventions with existing programs, it is hoped that it can provide more optimal results in handling pneumonia cases in the community.

Spiritual approaches, which may include practices such as prayer, meditation, or deep reflection, have the ability to provide inner peace, hope, and deeper meaning to patients during their recovery (Najafi *et al.*, 2022). These spiritual aspects can help patients find the inner strength and motivation to persevere through the physical and emotional challenges they face (Solomon *et al.*, 2022). Meanwhile, self-regulation techniques that include emotion management, goal setting, and positive visualization, help patients actively manage their emotional and behavioural responses during the often stressful healing process (Bryan, Zipp and Breitzkreuz, 2021; Joshi *et al.*, 2021).

The combination of these three elements, namely mindfulness, spirituality, and self-regulation, creates a holistic approach that not only focuses on physical recovery, but also supports the mental and emotional well-being of pneumonia patients (Sutriana, Sitaresmi and Wahab, 2021). By implementing these strategies, patients can develop greater

psychological resilience, improve their quality of life during treatment, and potentially accelerate the overall recovery process (Dehghan, Namjoo, Mohammadi Akbarabadi, *et al.*, 2021; Banda *et al.*, 2022).

This community service aims to explore and apply a combination of mindfulness, spiritual, and self-regulation approaches as non-pharmacological interventions to reduce anxiety levels in pneumonia patients. The purpose of this community service is determined based on the results of observations found during the study, many patients often experience anxiety and cause their vital signs to be abnormal. In addition, the results of interviews with nurses and doctors also provide support for the implementation of programs to improve the condition of pneumonia patients who experience anxiety. This community service focuses on combining interventions, it is hoped that a holistic and effective approach can be created to improve the mental well-being of patients, which in turn can support their physical recovery process. Through this program, the community service team will collaborate with local health workers to provide training and support to pneumonia patients, equipping them with practical skills to manage anxiety and improve quality of life during recovery. The results of this community service are expected to provide new insights into handling the psychological aspects of pneumonia patients and contribute to the development of more comprehensive care protocols in the future. This study aims to describe activities on the effect of a spiritual mindfulness approach combined with self-regulation in reducing anxiety in pneumonia patients.

COMMUNITY SERVICE METHOD

The Community Service Plan that has been implemented is in accordance with the formulation made by the community service implementer. This community service activity focuses on the use of the spiritual mindfulness combined with self-regulation to help reduce anxiety levels in pneumonia patients. This activity is carried out by a community service team that has a background in medical surgical nursing, basic nursing and a psychosocial focus, namely anxiety in pneumonia patients. The method of providing community service is through direct face-to-face activities by providing intervention and education to researchers.

This community service is carried out through a series of sessions including: 1) Introduction to the concept of mindfulness and basic techniques; 2) Integration of spiritual elements according to the beliefs of each patient; 3) Self-regulation training including breathing and relaxation techniques; 4) Daily mindfulness practice with guidance; 5) Group discussions to share experiences and support each other. This activity is carried out in several stages, namely the Preparation Stage by Conducting an initial assessment of the patient's anxiety level and providing an explanation of the program. Implementation Stage by Organizing mindfulness and self-regulation sessions periodically both individually and in groups. Evaluation Stage by Conducting periodic assessments of patient anxiety levels and program effectiveness, and Follow-up Stage by Providing ongoing support and guidance for independent practice. The number of participants who took part in this activity was 50 respondents of pneumonia patients who showed mild to severe anxiety without being accompanied by emergency or critical conditions.

This community service was carried out at one of the hospitals in Gresik Regency. Preparation for the activity included preparation of equipment and materials as well as

preparation for the technical activities. The equipment needed for the community service activity includes headphones, audio players, blood pressure measuring devices (sphygmomanometers and stethoscopes) and equipment to provide comfort to patients. The materials needed are spiritual mindfulness audio combined with self-regulation and accompanying modules. The procedure for carrying out community service is carried out by Coordinating with the hospital or related health facilities, Preparation of mindfulness and self-regulation materials, Preparation of tools and materials used in community service activities. The implementation of the activity was carried out for 45 minutes with details of the activities including an Educational Session Introduction to the concept of mindfulness and self-regulation, explanation of the benefits of mindfulness in reducing anxiety, and discussion of spiritual aspects in the healing process. Then continued with the implementation of spiritual-based mindfulness practices with Breathing exercises, short meditations focusing on body awareness and integration of spiritual elements according to the patient's beliefs in this context. Patients are given the opportunity to do self-regulation with the introduction of positive self-talk methods, negative thought reframing exercises and progressive relaxation techniques. This activity is also closed with an evaluation of the question and answer session and measurement of patient anxiety before and after spiritual-based mindfulness activities. Participants are also asked to provide feedback at the end of the activity.

RESULTS AND DISCUSSIONS

The implementation of community service in one of the regional hospitals in Gresik Regency was carried out in accordance with the community service plan that had been carried out. Community service participants were patients who were in the inpatient room and needed spiritual mindfulness therapy combined with self-regulation with the category of patients having mild and moderate anxiety. Patients with severe anxiety conditions or those included in emergency criteria were not included in community service. During the implementation of the community service, 50 patients were obtained who needed spiritual awareness intervention combined with self-regulation.

The community service that has been implemented shows very positive and encouraging results, especially in terms of reducing anxiety levels in participants. This program has had a significant impact on the mental well-being of participants. The majority of participants experienced a significant decrease in anxiety levels after participating in the program. This can be seen from the results of measuring anxiety levels before and after the program, which showed consistent positive changes in most participants. These results indicate that the methods and approaches used in the community service program are very effective in overcoming anxiety problems. The combination of various techniques and strategies applied during the program has proven to be able to provide the right solution for participants in managing their anxiety. The decrease in anxiety levels experienced by participants has great potential to improve their quality of life and productivity in everyday life. With the reduced burden of anxiety, participants are expected to be able to carry out daily activities more calmly, focused, and effectively, and be able to face life's challenges better. In this community service activity, the total respondents who participated were 50 pneumonia patients.

The indicator in the implementation of the provision of spiritual mindfulness intervention combined with self-regulation is a decrease in the anxiety condition experienced by the

patient. Patients with mild and moderate anxiety can decrease to mild anxiety or even not experience anxiety. So the community service team measured anxiety using the anxiety instrument from the Hamilton Anxiety Rating Scale (HARS) to determine the level of anxiety of the patient. The results of changes in the patient's condition showed that there was an improvement in the patient's anxiety after being given spiritual mindfulness intervention combined with self-regulation.

The characteristics of the participants are as follows Average Age 45.6 years (range 18-70 years) with Gender being female as many as 30 people (60%), and male as many as 20 people (40%). The Average Duration of Pneumonia was 14.3 days. Before the intervention, the patient's anxiety level was measured using the Hamilton Anxiety Rating Scale (HARS) showing Mild Anxiety: 20% (10 patients), Moderate Anxiety: 50% (25 patients) and Severe Anxiety: 30% (15 patients) with an average HARS score before the intervention: 24.8 (indicating moderate anxiety). After being given mindfulness activities, participants showed improvements in their anxiety conditions. Patients showed No Anxiety as many as 30% (15 patients), Mild Anxiety as many as 50% (25 patients), Moderate Anxiety as many as 20% (10 patients) and Severe Anxiety as many as 0% (0 patients) with an average HARS score after the intervention: 14.2 (indicating a significant decrease).



Figure 1. Patient Preparation for Spiritual Mindfulness.

The results showed the effectiveness of the mindfulness program with a spiritual approach and self-regulation in reducing the anxiety levels of pneumonia patients. Mindfulness intervention with a spiritual approach and self-regulation is quite effective in reducing anxiety in pneumonia patients, as many as 80% of patients experienced a decrease in anxiety levels, both those who were initially severely anxious decreased to moderate or mild and patients with moderate anxiety showed a decrease to mild and normal. These results indicate that a holistic approach that combines mindfulness techniques with spiritual aspects and self-regulation can provide significant benefits for pneumonia patients in managing their anxiety. Several factors that may contribute to the effectiveness

of this intervention include: 1. Increased self-awareness: Mindfulness practices help patients become more aware of their thoughts and feelings, allowing them to better manage anxiety. 2. Spiritual support: Spiritual approaches can provide a sense of meaning and purpose, which is important in dealing with serious illnesses such as pneumonia. 3. Development of self-regulation skills: Patients learn techniques to control their emotional responses, which is very useful in stressful situations. 4. Acceptance and resilience: Mindfulness encourages an attitude of acceptance of the current condition, which can reduce internal struggles and increase mental resilience. Although these results are very promising, it should be noted that further research may be needed to understand the long-term effects and optimize intervention protocols for various pneumonia patient populations.



Figure 2. Intervention Spiritual Mindfulness in Pneumonia Patient.

Mindfulness with a spiritual approach has been shown to be highly effective in reducing anxiety levels in a variety of complex medical conditions. Recent research suggests that this practice can provide significant benefits to the mental and emotional well-being of patients. In the specific context of pneumonia, a serious lung infection, this spiritual mindfulness practice has shown promise in helping patients cope with the challenges they face (Sutriana, Sitaresmi and Wahab, 2021). Increasing awareness of physical sensations without negative judgment: Patients learn to observe their physical symptoms, such as shortness of breath or chest pain, in a more objective and less frightening way. This helps reduce the stress reaction to these sensations. Through mindfulness practice, patients can develop a greater attitude of acceptance of their situation (Salari *et al.*, 2021; Corpuz, 2024). This does not mean giving up, but rather understanding the present reality without undue resistance, which can reduce emotional distress. The spiritual aspect of this practice helps patients find deeper meaning and purpose during difficult times. This could be a connection with a higher power, nature, or deep personal values, providing additional strength and resilience. By combining these elements, spiritual mindfulness offers a holistic approach to managing anxiety and improving the quality of life for pneumonia

patients, helping them face their healing journey with greater calm and strength.

Self-regulation techniques provide pneumonia patients with invaluable tools to effectively manage their emotional responses to the illness. By implementing these techniques, patients can better cope with the psychological challenges that often arise during the healing process (Puspitasari *et al.*, 2023). Benefits that have been observed from implementing self-regulation techniques include Improved ability to recognize and manage anxiety triggers, Patients become more aware of situations or thoughts that can trigger anxiety, and they learn practical ways to calm themselves when faced with these triggers, Patients learn and apply stress management techniques tailored to their individual needs, such as deep breathing techniques, positive visualization, or reframing negative thoughts. By understanding and managing their emotional responses, patients feel more empowered to deal with their physical symptoms and are able to participate more actively in their healing process (Reisi *et al.*, 2021; Liu *et al.*, 2022).

The combination of these two approaches creates a powerful and comprehensive synergistic effect in managing anxiety, Mindfulness increases awareness of thoughts and feelings, while self-regulation facilitates appropriate and adaptive responses to challenging situations. Both work together to create greater mental balance. The spiritual approach strengthens the intrinsic motivation to practice self-regulation techniques consistently. This provides a solid foundation and deeper meaning for the healing process and personal growth. The integration of the two encourages a holistic approach to anxiety management, considering the physical, mental, emotional and spiritual aspects of a person. This allows for a more comprehensive and effective treatment of anxiety symptoms. This combination also enhances long-term resilience, helping individuals not only cope with current anxiety but also develop skills to better face future challenges. This integrated approach promotes a deeper understanding of oneself, facilitating continued personal growth and an overall improvement in quality of life.

CLOSING

Conclusion. The combination of mindfulness, spiritual approaches, and self-regulation has shown great promise in reducing anxiety levels in patients with pneumonia. Measurements taken with the HARS instrument showed significant improvements after patients were given the intervention. This holistic approach combines meditation techniques, spiritual practices, and emotional management strategies that can help patients cope with the stress and anxiety that often arise during the disease process and recovery. These non-pharmacological strategies offer a number of significant benefits for patients with pneumonia. First, mindfulness helps patients become more aware of their thoughts and feelings, which can reduce excessive rumination and worry. Second, spiritual approaches provide a framework of meaning and emotional support that can increase patient resilience. Third, self-regulation techniques allow patients to actively manage their emotional responses to symptoms and treatment. These findings provide strong support for integrating mindfulness-based psychological interventions and self-regulation into existing pneumonia care protocols. This holistic approach considers not only the physical aspects of the disease, but also the mental and emotional well-being of patients.

Suggestion. By incorporating these techniques into standard care, we may be able to help patients manage stress, anxiety, and physical symptoms more effectively.

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REFERENCES

- Ayatulloh, D., Prayoga, D. H. and Priyantini, D. (2024) 'Spiritual mindfulness combination with self-regulation on the effect to vital sign and anxiety reduction among pneumonia survivors', *Jurnal Keperawatan Padjadjaran*, 12(3), pp. 316–326. doi: 10.24198/jkp.v12i3.2619.
- Banda, K. J. et al. (2022) 'Prevalence of dysphagia and risk of pneumonia and mortality in acute stroke patients: a meta-analysis', *BMC geriatrics*, 22(1), p. 420.
- Bryan, S., Zipp, G. and Breitreuz, D. (2021) 'The Effects of Mindfulness Meditation and Gentle Yoga on Spiritual Well-Being in Cancer Survivors: A Pilot Study.', *Alternative Therapies in Health & Medicine*, 27(3).
- Collaborators, G. B. D. 2019 M. D. (2022) 'Global, regional, and national burden of 12 mental disorders in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019', *The Lancet Psychiatry*, 9(2), pp. 137–150. doi: 10.1016/S2215-0366(21)00395-3.
- Corpuz, J. C. G. (2024) 'The importance of spiritual mindfulness in palliative care', *American Journal of Hospice and Palliative Medicine®*, 41(10), pp. 1258–1259.
- Dehghan, M., Namjoo, Z., Mohammadi Akbarabadi, F., et al. (2021) 'The relationship between anxiety, stress, spiritual health, and mindfulness among patients undergoing hemodialysis: A survey during the COVID-19 outbreak in Southeast Iran', *Health Science Reports*, 4(4), p. e461.
- Dehghan, M., Namjoo, Z., Zarei, A., et al. (2021) 'The relationship between coronavirus anxiety, mindfulness and spiritual health in patients with cancer: a survey in Southeast Iran', *Psychiatry Investigation*, 18(5), p. 443. doi: 10.30773/pi.2020.0441.
- Hasina, S. N. et al. (2021) 'Mindfulness Meditation Based on Spiritual Care to Reduce Community Anxiety due to the Impact of Pandemic Coronavirus Disease', 9, pp. 41–46. doi: <https://doi.org/10.3889/oamjms.2021.6487>.
- Joshi, A. M. et al. (2021) 'Effect of Mindfulness-Based Art Therapy (MBAT) on psychological distress and spiritual wellbeing in breast cancer patients undergoing chemotherapy', *Indian journal of palliative care*, 27(4), p. 552.
- Łakuta, P. (2020) 'Using the theory of self-affirmation and self-regulation strategies of mental contrasting and forming implementation intentions to reduce social anxiety symptoms', *Anxiety, Stress, & Coping*, 33(4), pp. 370–386. doi:

0.1080/10615806.2020.1746283.

- Li, Y.-F. et al. (2020) 'Effects of mindfulness meditation on anxiety, depression, stress, and mindfulness in nursing students: A meta-analysis and trial sequential analysis of randomized controlled trials', *Frontiers of Nursing*, 7(1), pp. 59–69.
- Liu, C. et al. (2022) 'Effects of mindfulness meditation on doctors' mindfulness, patient safety culture, patient safety competency and adverse event', *International journal of environmental research and public health*, 19(6), p. 3282.
- Najafi, K. et al. (2022) 'Relationship between spiritual health with stress, anxiety and depression in patients with chronic diseases', *International Journal of Africa Nursing Sciences*, 17, p. 100463.
- Nursalam, N. et al. (2020) 'Risk factors for psychological impact and social stigma among people facing COVID 19: A systematic review', *Systematic Reviews in Pharmacy*, 11(6), pp. 1022–1028. doi: 10.31838/srp.2020.6.146.
- Oberoi, S. et al. (2020) 'Association of mindfulness-based interventions with anxiety severity in adults with cancer: a systematic review and meta-analysis', *JAMA network open*, 3(8), pp. e2012598–e2012598.
- Puspitasari, D. E. et al. (2023) 'Spiritual Mindfulness Berbasis Adaptation Theory terhadap Kecemasan dan Vital Sign pada Pasien Pneumonia', *Journal of Telenursing (JOTING)*, 5(1), pp. 515–526. doi: <https://doi.org/10.31539/joting.v5i1.5471>.
- Reisi, S. et al. (2021) 'The effect of religion and spirituality on anxiety and depression in cancer patients: A review article', *Medicine*, 6(1), pp. 75–86.
- Salari, N. et al. (2021) 'Effects of counselling and spiritual care program on anxiety in patients with chronic diseases: A systematic review and meta-analysis', *Current Psychology*, pp. 1–10.
- Schulte-Frankenfeld, P. M. and Trautwein, F. (2022) 'App-based mindfulness meditation reduces perceived stress and improves self-regulation in working university students: A randomised controlled trial', *Applied Psychology: Health and Well-Being*, 14(4), pp. 1151–1171. doi: 10.1111/aphw.12328.
- Solomon, Y. et al. (2022) 'Prevalence of pneumonia and its determinant factors among under-five children in Gamo Zone, southern Ethiopia, 2021', *Frontiers in Pediatrics*, 10, p. 1017386.
- Sutriana, V. N., Sitaresmi, M. N. and Wahab, A. (2021) 'Risk factors for childhood pneumonia: a case-control study in a high prevalence area in Indonesia', *Clinical and experimental pediatrics*, 64(11), p. 588.
- Wu, C. et al. (2021) 'Correlation between anxiety-depression symptoms and immune characteristics in inpatients with 2019 novel coronavirus in Wuhan, China', *Journal of Psychiatric Research*, 141, pp. 378–384. doi: 10.1016/j.jpsychires.2021.07.027.