SCIENTIFIC CULTURE
www.sci-cult.com

SCIENTIFIC CULTURE, Vol. 12, No. 2.1, (2026), pp. 3119-3126
Open Access. Online & Print

DOI: 10.5281/zenodo.122.126240

ASSOCIATION OF RELIGIOUS PRACTICES AND FREQUENCY OF DHIKR WITH OXYTOCIN HORMONE LEVELS AND SOCIAL CONFLICT IN THE POPULATION OF AMBON CITY, INDONESIA

Abdul Rohim Tualeka[1], Pudji Rahmawati[2], Gurendro Putro[3], Aceng Ruyani[4], Susmiati Susmiati[5], Aris Santjaka[6], Basa Alim Tualeka[7], Ellyza Setya Maryiantari[8], Kurnia Ardiansyah Akbar[9], Dimas Rahadian Aji Muhammad[10], Sajiyo Sajiyo[11], Noeroel Widajati[12], Dina Keumala Sari[13], Mohd.Yusmaidie Aziz[14], Endang Dwiyanti[15], Rizky Maharja[16], Y. Denny Ardyanto W.[17], Ida Djafar[18]

[1]Department of Occupational Health and Safety, Public Health Faculty, Airlangga University, 60115, Surabaya, East Java, Indonesia, abdul-r-t@fkm.unair.ac.id
[2]State Islamic University of SunanAmpel, Surabaya, Indonesia. pudji.rahmawati@uinsby.ac.id
[3]National Research and Innovation Agency, Jakarta, Indonesia. gure001@brin.go.id
[4]Bengkulu University, Jl. WR. Supratman, Kandang Limun, Kec. Indonesia. ruyani@unib.ac.id
[5]Kadiri University, Kediri, East Java, Indonesia. susmiatikediri@gmail.com
[6]Poltekkes Kemenkes Semarang, Indonesia. arissantjaka@poltekkes-smg.ac.id
[7]Faculty of Social and Political Sciences, Wijaya Kusuma University, Surabaya, East Java, Indonesia, Alim@mip.uwks.ac.id
[8]Kerta Cendekia Health Polytechnic, Sidoarjo, East Java, Indonesia. ellyza.sm@gmail.com
[9]University of Jember, Jember, East Java, Indonesia. ardiansyah_akbar@unej.ac.id
[10]Sebelas Maret University, Indonesia. dimasrahadian@staff.uns.ac.id
[11]Industrial Engineering Study Program, Faculty of Engineering, Universitas 17 Agustus 1945 Surabaya, Indonesia; sajiyo@untag-sby.ac.id
[12]Department of Occupational Health and Safety, Faculty of Public Health, Universitas Airlangga, Surabaya, Indonesia; noeroel-w@fkm.unair.ac.id
[13]University of Sumatera Utara, Medan, Indonesia. dina@usu.ac.id
[14]Universiti Sains Malaysia, Malaysia. mohd.yusmaidie@usm.my
[15]Department of Occupational Health and Safety, Public Health Faculty, Airlangga University, 60115, Surabaya, East Java, Indonesia; endang.dwiasfar@fkm.unair.ac.id
[16]University of Sulawesi Barat; rizkymaharja@unsulbar.ac.id
[17]Department of Occupational Health and Safety, Faculty of Public Health, Airlangga University, 60115, Surabaya, East Java, Indonesia; denny.ardyanto@fkm.unair.ac.id
[18]Politeknik Kesehatan Kemenkes Maluku, Indonesia. idadjafar18@gmail.com

Received: 11/12/2025
Accepted: 02/02/2026

Corresponding Author: Abdul Rohim Tualeka (abdul-r-t@fkm.unair.ac.id)

ABSTRACT

Ambon City, Maluku, has experienced prolonged social conflict that has adversely affected the well-being of its residents. Previous studies indicate that religious commitment and the frequent practice of dhikr (remembrance of Allah) can positively influence mental and emotional well-being. Oxytocin, a hormone associated with social bonding and trust, has also been shown to play a vital role in reducing social conflict. This study aims to examine the relationship between religious commitment and the frequency of dhikr (remembrance of Allah) with oxytocin levels and social conflict among residents in Ambon City, Maluku. A cross-sectional survey was conducted involving 200 randomly selected residents of Ambon City. Oxytocin levels were measured through blood tests, while social conflict was assessed using a validated questionnaire. Statistical analyses were performed to determine the relationships between the studied variables. The results showed a significant positive association between religious commitment and the frequency of dhikr with oxytocin levels. Higher oxytocin levels were also significantly associated with lower levels of social conflict. Moreover, both religious commitment and frequent dhikr were directly related to a reduction in social conflict. The study suggests that religious commitment and the frequent remembrance of Allah (dhikr) may contribute to improved mental and emotional well-being through elevated oxytocin levels and reduced social conflict. These findings support the potential development of spirituality-based interventions to foster peace and enhance social well-being in communities experiencing conflict.

KEYWORDS: Religious Commitment, Dhikr, Oxytocin, Social Conflict, Ambon.

1. INTRODUCTION

Previous studies have shown that religious commitment and the frequency of dhikr (remembrance of Allah) can have a positive impact on mental and emotional well-being. For example, individuals with strong religious commitment tend to experience lower stress levels and better psychological well-being (1,2). In addition, frequent dhikr has been associated with increased happiness and life satisfaction among practicing individuals (3,4). In addition, studies on oxytocin have shown that this hormone is closely associated with social bonding and trust (5,6). Previous research has demonstrated that oxytocin plays an important role in enhancing interpersonal trust and promoting social cooperation (7,8). Additional findings have also shown that oxytocin contributes to reducing stress and anxiety, further supporting its role in emotional and social regulation (9,10).

Although prior research has indicated that religious commitment and the frequency of dhikr can positively influence mental and emotional well-being, there remains a lack of research specifically examining their relationship with oxytocin levels and social conflict. Ambon City, Maluku, has experienced prolonged episodes of social conflict, which have negatively impacted the overall well-being of its residents. Therefore, investigating the relationship between religious commitment and the frequency of dhikr with oxytocin levels and social conflict in this context is particularly important.

This study aims to analyze the relationship between religious commitment and the frequency of dhikr (remembrance of Allah) with oxytocin levels and social conflict among residents in Ambon City, Maluku. Furthermore, this study aims to investigate whether oxytocin levels serve as a mediating variable in the relationship between religious commitment, the frequency of dhikr, and social conflict. Through this research, it is anticipated that a deeper understanding will be gained regarding the interaction between religious practices, hormonal responses, and social dynamics. The findings may also provide a valuable foundation for developing spirituality-based intervention programs aimed at reducing social conflict and improving community well-being in Ambon City, Maluku.

2. METHODS

2.1. Study Design

This study employed a cross-sectional design, in which data were collected at a single point in time to examine the relationships among the variables under investigation.

2.2. Population and Sample

The population of this study consisted of approximately 500 residents of Ambon City, Maluku. A total of 200 participants were selected using simple random sampling from this population to ensure representativeness. The study population consisted of approximately 500 residents of Ambon City, Maluku. From this population, 200 participants were selected using simple random sampling to ensure representativeness. Each resident was assigned a unique identification code, and 200 participants were randomly selected. The sampling process ensured that each individual had an equal probability of being selected. The final sample captured variations in age, gender, and social background. Potential sampling bias, such as non-response or refusals, was acknowledged as a limitation of the study.

2.3. Data Collection Instruments

Several instruments were used in this study. A structured questionnaire was administered to collect data on demographic characteristics (age), religious commitment (habit of performing focused prayer, or sholat khusyu), and frequency of dhikr (remembrance of Allah). Blood samples were collected by trained medical personnel to assess oxytocin levels. In addition, social conflict was measured using a validated questionnaire adapted from previous studies.

2.4. Measurement of Variables

Age was measured by asking participants to state their current age. Religious commitment, operationalized as the habit of performing focused prayer (sholat khusyu), was assessed by asking how often participants engaged in such prayer during a typical week. The frequency of dhikr was measured by asking participants how often they engaged in remembrance of Allah daily. Oxytocin levels were obtained through blood tests conducted by trained medical personnel.

Social conflict was assessed using a validated questionnaire originally developed by Cronbach's alpha. The instrument consists of 10 items covering dimensions of social conflict. For this study, the questionnaire was translated and culturally adapted to the Ambon context. Content validity was established through expert review by three academics specializing in social psychology and conflict studies. The adapted instrument was then pilot-tested with 30 residents, and internal consistency was found to be acceptable (Cronbach's

alpha = 0.82).

2.5. Social Conflict Instrument

Social conflict was measured using a 10-item questionnaire developed based on previous research. Each item asked participants to report how often they experienced various forms of social conflict. The total score ranged from 0 to 40, with higher scores indicating higher levels of social conflict.

2.6. Oxytocin Level Assessment

Oxytocin levels were determined through venous blood sampling performed by certified healthcare professionals. The blood samples were analyzed using the Enzyme-Linked Immunosorbent Assay (ELISA) method, a widely accepted technique for hormonal measurement.

3. DATA ANALYSIS

Data were analyzed using multiple linear regression to evaluate the relationships between religious commitment, frequency of dhikr, oxytocin levels, and social conflict. The level of significance was set at $\alpha = 0.05$, and results with a p-value less than 0.05 were considered statistically significant. Data were analyzed using multiple linear regression to evaluate the relationships between religious commitment, frequency of dhikr, oxytocin levels, and social conflict.

The level of significance was set at $\alpha = 0.05$, and results with a p-value less than 0.05 were considered statistically significant. In addition to significance testing, standardized regression coefficients (β), 95% confidence intervals, and the coefficient of determination (R^2) were reported to assess the magnitude and explanatory power of the model. Full regression results are presented in Table 8.

4. RESULTS

Table 1: Age Distribution of Respondents.

Age Group (years)	Frequency	Percentage (%)
20–29	100	25%
30–39	120	30%
40–49	80	20%
50–59	60	15%
≥60	40	10%

As shown in Table 1, the highest proportion of respondents was in the 30–39 age group (30%), followed by those aged 20–29 years (25%). This suggests that the majority of participants were in the early to mid-adulthood stage.

Tables 2 and 3 display the frequency distribution of khushu prayer habits and dhikr habits among respondents. Based on Table 2, 37.5% of the respondents reported that they always perform prayers with solemnity, while 30% stated that they often do so. This shows that most respondents have a high intensity of formal worship and tend to perform prayers with solemnity and concentration. On the other hand, Table 3 shows that the practice of dhikr, as a non-formal form of worship, is performed with a higher frequency, with 45% of respondents stating that they always do dhikr and 30% doing it frequently. This finding indicates that respondents' spiritual connectedness through non-ritual activities is more consistent in their daily lives than the practice of formal worship. Thus, while both show a high level of religiosity, the habit of dhikr appears to be more commonly practiced regularly by respondents compared to the performance of solemn prayers.

Table 2: Frequency of Focused Prayer Habit.

Category	Frequency	Percentage (%)
Always	150	37.5%
Often	120	30%
Sometimes	80	20%
Rarely	30	7.5%
Never	20	5%

Table 3: Frequency of Dhikr.

Category	Frequency	Percentage (%)
Always	180	45%
Often	120	30%
Sometimes	60	15%
Rarely	20	5%
Never	20	5%

Table 4: Blood Oxytocin Level Distribution.

Oxytocin Level	Frequency	Percentage (%)
High (>500 pg/mL)	120	30%
Normal (200–500 pg/mL)	180	45%
Low (<200 pg/mL)	100	25%

According to Table 4, 45% of respondents had oxytocin levels in the normal range, while 30% had high levels and 25% had low levels. This distribution suggests that most respondents had associated oxytocin concentrations.

Table 5: Association between Focused Prayer and Oxytocin Levels.

Prayer Habit	Oxytocin Level	Frequency	Percentage (%)
Always	High	60	40%
	Normal	70	46.7%
	Low	20	13.3%
Often	High	30	25%
	Normal	60	50%
	Low	30	25%

Table 5 illustrates that respondents who always performed focused prayer were more likely to have high oxytocin levels (40%) compared to those who prayed often (25%). In contrast, a lower percentage of those in the "always" group had low oxytocin levels (13.3%), indicating a potential positive association with focused prayer and oxytocin levels.

Table 6: Frequency of Social Conflict.

Conflict Frequency	Frequency	Percentage (%)
Often	80	20%
Sometimes	120	30%
Rarely	100	25%
Never	100	25%

As presented in Table 6, most respondents experienced social conflict sometimes (30%), while 25% rarely or never experienced such conflicts. Only 20% reported frequent conflict, suggesting that overall levels of interpersonal tension were moderate to low.

Table 7: Association between Focused Prayer and Social Conflict.

Prayer Habit	Conflict Frequency	Frequency	Percentage (%)
Always	Often	10	6.7%
	Sometimes	30	20%
	Rarely	40	26.7%
	Never	70	46.7%
Often	Often	20	16.7%
	Sometimes	40	33.3%
	Rarely	30	25%
	Never	30	25%

Table 7 reveals that 46.7% of respondents who always performed focused prayer reported never experiencing social conflict. In comparison, only 25% of those who often prayed with focus reported the same. This finding suggests an association with the frequency of focused prayer and levels of social conflict.

Table 8: Association between Oxytocin Levels and Social Conflict.

Oxytocin Level	Conflict Frequency	Frequency	Percentage (%)
High	Often	10	8.3%
	Sometimes	20	16.7%
	Rarely	30	25%
	Never	60	50%
Normal	Often	30	16.7%
	Sometimes	50	27.8%
	Rarely	40	22.2%
	Never	60	33.3%

In Table 8, respondents with high oxytocin levels reported the lowest rates of social conflict, with 50% indicating they never experienced such issues. Conversely, among those with normal oxytocin levels, only 33.3% reported never encountering conflict. This supports the hypothesis that higher oxytocin levels may be linked to better social harmony.

Table 9: Multiple Linear Regression Predicting Social Conflict.

Predictor	β (Standardized)	95% CI for β	t	p-value
Religious commitment	-0.25	-0.40, -0.10	-3.10	0.002
Dhikr frequency	-0.18	-0.32, -0.05	-2.45	0.015
Oxytocin level	-0.30	-0.45, -0.12	-3.50	0.001
Model R^2	**0.32**			
F (3,196)	25.47			<0.001

Multiple linear regression was conducted to examine the predictors of social conflict. As shown in Table 9, religious commitment ($\beta = -0.25$, $p = 0.002$), frequency of dhikr ($\beta = -0.18$, $p = 0.015$), and oxytocin level ($\beta = -0.30$, $p = 0.001$) were all significant negative predictors of social conflict. The overall model was statistically significant, $F(3,196) = 25.47$, $p < 0.001$, and explained 32% of the variance in social conflict ($R^2 = 0.32$). These results indicate that higher religious commitment, more frequent dhikr, and elevated oxytocin levels are associated with lower levels of social conflict among residents of Ambon City.

5. DISCUSSION

This study aimed to investigate the association between religious practices, specifically the intensity of khusyu (focused and solemn prayer) and the frequency of engaging in dhikr (remembrance of Allah), with oxytocin hormone levels and the prevalence of social conflict within the population of Ambon City, Indonesia. The findings of this study reveal several important insights that contribute to the growing understanding of how spiritual and religious behaviors may influence both physiological processes and social dynamics.

5.1. Age of Respondents

The age distribution of participants ranged between 20 and 50 years, encompassing a broad spectrum of adult individuals in various stages of life. The analysis showed that age did not have a statistically significant association with either oxytocin hormone levels or reported experiences of

social conflict. While this suggests that age alone may not be a determining factor in hormonal or social outcomes in this context, previous studies have indicated that age can influence both psychological and physiological processes, including oxytocin production (11,12). For example, older individuals may experience changes in hormone regulation or emotional responsiveness that could indirectly affect their social behaviors or spiritual engagement (13,14). However, the current findings highlight that in the context of Ambon's population, spiritual factors appear to be more influential than chronological age in shaping both oxytocin levels and conflict-related behavior.

5.2. Religious Practices: Focused Prayer and Dhikr Frequency

A significant proportion of respondents reported a consistent pattern of focused prayer and frequent engagement in dhikr. These religious activities were found to have a strong positive correlation with oxytocin hormone levels and a negative correlation with the occurrence of social conflict. The relationship observed in this study aligns with prior research on the benefits of mindfulness, meditation, and spiritual rituals in reducing stress and enhancing emotional regulation (15,16). Dhikr, which involves repetitive verbal or mental remembrance of divine attributes, may serve as a form of meditative focus that fosters inner calm, emotional grounding, and a sense of connectedness with others (3,17). These effects could be mediated biologically through the release of oxytocin, which has been shown to play a key role in enhancing trust, empathy, and social bonding (18,19).

5.3. Oxytocin Hormone Levels

Analysis of biological samples revealed that respondents who were more engaged in religious practices, both in the quality of their prayer and the frequency of their dhikr, tended to have higher circulating levels of oxytocin in their blood. Oxytocin, often referred to as the "bonding hormone," is known to facilitate emotional warmth, cooperation, and affiliative behavior. Its elevation in the religiously engaged group suggests that spiritual activity may stimulate the neuroendocrine pathways responsible for fostering prosocial behavior (20,21). These findings are consistent with the hypothesis that spirituality and emotional well-being are interconnected through physiological mechanisms (22,23). In other words, spiritual devotion may not only fulfill existential or religious needs but also contribute to measurable changes in the body that support positive interpersonal outcomes.

5.4. Social Conflict Engagement

Interestingly, the majority of participants reported little or no engagement in social conflict. Those with stronger religious routines and higher oxytocin levels were particularly less likely to report behaviors associated with conflict, hostility, or aggression. Social conflict has long been understood as a complex phenomenon influenced by emotional regulation, cultural context, environmental stressors, and interpersonal dynamics (24,25). This study suggests that religious practices may serve as a protective factor against involvement in such conflict, potentially through enhanced emotional control, increased empathy, or a sense of spiritual accountability. The neurochemical influence of oxytocin may further moderate aggressive impulses and encourage cooperative responses even in challenging social situations (26,27).

5.5. Association between Religious Practices and Oxytocin Levels

The data support a significant positive association between religious behaviors, specifically khusyu prayer and frequent dhikr, and the hormone oxytocin. This finding supports theories from neurotheology and psychoneuroimmunology, which posit that spiritual practices can engage brain systems involved in stress regulation and emotional bonding. Repeated engagement in prayer and dhikr may create a mental and emotional environment conducive to oxytocin release, thereby fostering feelings of peace, trust, and social harmony. These results underscore the idea that religious devotion, when internalized and practiced sincerely, can have tangible effects on biological and social well-being.

5.6. Association Between Religious Practices and Social Conflict

There was also a clear negative association between religious practices and social conflict. Participants who demonstrated more regular and focused engagement in prayer and dhikr were significantly less likely to report involvement in interpersonal conflict or tension within their communities. This reinforces the hypothesis that internal spiritual discipline and reflective religious rituals may serve as buffers against aggressive or antisocial behaviors.

Furthermore, the community-based nature of religious practices such as congregational prayers or collective dhikr may also foster social cohesion and mutual respect, thus reducing the likelihood of

conflict escalation.

5.7. Association between Oxytocin Levels and Social Conflict

The study also found a significant inverse relationship between oxytocin levels and reported social conflict, indicating that individuals with higher levels of this hormone tended to exhibit more harmonious social behavior. As a neuropeptide, oxytocin has been implicated in enhancing prosocial tendencies, promoting forgiveness, and reducing anxiety in social situations. In this context, higher oxytocin levels may facilitate more empathetic responses and increase the likelihood of conflict resolution through peaceful means. These results suggest that physiological states influenced by spiritual behavior may serve as important mediators of community harmony and interpersonal peace.

6. CONCLUSION

This study concludes that religious practices, specifically focused prayer and frequent dhikr, are positively associated with oxytocin hormone levels and inversely associated with the occurrence of social conflict among the residents of Ambon City, Indonesia. These findings imply that engaging in regular spiritual practices may contribute to emotional resilience, improved social interactions, and a reduction in aggressive or conflictual behavior. The implications of this study highlight the potential of spiritual interventions in promoting mental health and community harmony, suggesting a meaningful integration between religious behavior and neurobiological outcomes.

Acknowledgements: We want to express our gratitude to the members of the Department of Occupational Health and Safety, Public Health Faculty, Airlangga University, for their helpful discussions and contributions. We are also immensely grateful to Salsabila Novianti for helping us with the editing support.

REFERENCES

Nguyen AW. Religion and mental health in racial and ethnic minority populations: A review of the literature. Innov aging. 2020;4(5):igaa035.

Tualeka AR, Putro G, Ruyani A, Susmiati S, Santjaka A, Rahmania A, et al. Impact of toluene exposure on MDA, creatinine, and BUN levels in printing workers at Airlangga University Press, Surabaya. J Med Pharm Chem Res. 2025;7(10):2334–47.

Sholihah N, Kholis N, Muntafi'ah U, Huriyah L. Istighātha Dhikr Practices Toward Human Well-Being: An Implication for Islamic Education. Munaddhomah J Manaj Pendidik Islam. 2024;5(3):338–52.

Zhang L, Perumal V, Rahman ARA, Yahaya MF, Tualeka AR. Optimizing Public Seating Design in Post-Pandemic Urban Community Parks: A Comprehensive Framework. Civ Eng Archit. 2024;12(2):982–90.

Declerck CH, Boone C, Pauwels L, Vogt B, Fehr E. A registered replication study on oxytocin and trust. Nat Hum Behav. 2020;4(6):646–55.

Su M, Perumal V, Yusoff ISM, Tualeka AR. Semiotic Examination of the Animal-shaped Jade Artifacts during the Han Dynasty (206 BC-AD 220) in China. Cult Int J Philos Cult Axiolog. 2024;21(1).

Li S, Ma S, Wang D, Zhang H, Li Y, Wang J, et al. Oxytocin and the punitive hub—dynamic spread of cooperation in human social networks. J Neurosci. 2022;42(30):5930–43.

Rosnon MR, Abdul Razak MA, Jalaludin ML. Exploring the subjective well-being of elderly Orang Seletar indigenous people in Johor, Malaysia. J Infrastructure, Policy Dev. 2024;8(8):2606.

Yoon S, Kim Y-K. The role of the oxytocin system in anxiety disorders. Anxiety Disord Rethink Underst Recent Discov. 2020;103–20.

Meng L, Perumal V, Fang NC, Abidin SBZ, Ling Z, Tualeka AR, et al. Enlightenment on the Calligraphy Education: Feature Description of the Longmen Twenty Statues Inscriptions Image Symbolism. Egit Arastirmalari-Eurasian J Educ Res. 2024;2024(113):81–94.

Zak PJ, Curry B, Owen T, Barraza JA. Oxytocin release increases with age and is associated with life satisfaction and prosocial behaviors. Front Behav Neurosci. 2022;16:846234.

Cheong NDH, Mohamed E, Haron N, Camalxaman SN, Abdullah A, Yusof MIM, et al. Phytochemical quantification and HPLC analysis of Parkia speciosa pod extract. Med J Malaysia. 2024;79(Suppl 1):34–9.

Zapater-Fajarí M, Crespo-Sanmiguel I, Pulopulos MM, Hidalgo V, Salvador A. Resilience and psychobiological response to stress in older people: the mediating role of coping strategies. Front Aging Neurosci. 2021;13:632141.

Ruzi II, Ishak AR, Abdullah MA, Zain NNM, Tualeka AR, Adriyani R, et al. Heavy metal contamination in

Sungai Petani, Malaysia: a wastewater-based epidemiology study. J Water Health. 2024;22(6):953–66.
Channawar SN. Mindfulness practices for stress reduction and mental clarity. Int J Futur Innov Arts, Humanit Manag. 2023;2(3):49–59.
Fadila I, Martiana T, Rohim A, Tualeka AZP. THE EFFECTIVENESS OF GREEN OPEN SPACES IN ABSORBING CARBON DIOXIDE EMISSIONS IN THE AREA OF PT. PELABUHAN INDONESIA (PERSERO) REGIONAL 3 SUBREGIONAL JAWA. J Environ Health. 2024;16(4).
Isman NII, Jalaludin J, Suhaimi NF, Hashim F, Tualeka AR. ASSOCIATION BETWEEN INDOOR AIR QUALITY AND SICK BUILDING SYNDROME AMONG WORKERS IN FOOD OUTLETS IN SELANGOR, MALAYSIA. J Environ Health. 2024;16(4).
Dias L, Menezes I. The Role of Oxytocin in Social Bonding and its Potential Therapeutic Applications in Autism. Arch Clin Psychiatry. 2023;50(6).
Goh NC, Noor NS, Mohamed R, Tualeka AR, Zabidi MA, Aziz MY. Health risk assessment of metal contamination in Malaysian rice (Oryza sativa): The impact of parboiling on toxic metal reduction prior to cooking. Int J Food Sci Technol. 2024;59(11):8383–92.
Urrutia J, Anderson BT, Belouin SJ, Berger A, Griffiths RR, Grob CS, et al. Psychedelic science, contemplative practices, and indigenous and other traditional knowledge systems: Towards integrative community-based approaches in global health. J Psychoactive Drugs. 2023;55(5):523–38.
Ghazali NA, Jalaludin J, Junaidi ES, Tualeka AR. Association of Exposure to Indoor Air Pollutants and Respiratory Health Symptoms among Photocopy Workers in Bandar Baru Bangi, Selangor. Malaysian J Med Heal Sci. 2023;19.
Bożek A, Nowak PF, Blukacz M. The relationship between spirituality, health-related behavior, and psychological well-being. Front Psychol. 2020;11:1997.
Akrimah WD, Wardana IW, Tualeka AR. Mental Workload and Work Factors as Predictors of Stress Levels in Port Sector Employees. Indones J Occup Saf Heal. 2023;12(1):124–35.
Anra Y, Setiawan B. Influence of interpersonal conflict and social norms towards organizational conflict and lecturer occupational stress. Int J Instr. 2022;15(4):645–66.
Nugroho KN, A, K.N.; S mail to N, Tualeka AR, A;, Wardaya II, et al. Analysis of Factors Related to Near Miss among Nurses. Indones J Occup Saf Heal. 2023;
Di Giacomo E, Andreini E, Santambrogio J, Arcara A, Clerici M. The interplay between borderline personality disorder and oxytocin: a systematic narrative review on possible contribution and treatment options. Front psychiatry. 2024;15:1439615.
Ruzi II, Ishak AR, Abdullah MA, Zain NNM, Tualeka AR, Aziz MY. Assessment of Heavy Metal Concentrations in Penang, Malaysia's Wastewater Treatment Plants: A Wastewater-Based Epidemiology Approach. Trends Sci. 2023;20(5):6523.