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THE CONSEQUENCE OF MINDFULNESS-BASED INTERVENTION ON DEPRESSION AND STRESS IN PEOPLE WITH CARDIAC DISORDER

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ABSTRACT

Anxiety and depression are more common in patients who endure stress, unhappiness, and anxiety. Psychological treatments like mindfulness-based therapy are frequently used to treat anxiety and depression. The impact of a modified mindfulness-based stress reduction (MBSR) programme on educators' stress levels and general well-being has been studied. Additionally, we carried out a systematic review and meta-analysis of the pertinent literature to determine the effectiveness of mindfulness-based interventions in patients with stress, anxiety, and depression. In recent decades, there has been a noticeable rise in the application of meditation as a therapeutic tool for the treatment of psychiatric and physical conditions. Heart issues such as inadequate blood supply to the heart muscle can be brought on by mild stress. The tactics that may be employed when utilising this therapeutic resource are referred to as mindfulness-based interventions (MBIs), mindfulness-based programmes, mindfulness-based treatments, and mindfulness-based training.

Keywords: Mindfulness-Based Intervention, Depression, Stress, Cardiac Disorder

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INTRODUCTION

Patients who suffer from sadness, anxiety, and stress are more likely to experience anxiety and depression. Anxiety and depression are commonly treated with psychological therapies such as mindfulness-based therapy. Efficacy of a modified mindfulness-based stress reduction (MBSR) program on the levels of stress and overall well-being experienced by educators, there has been investigated the efficacy of a mindfulness-based intervention in patients suffering from depression, anxiety, and stress, and we also conducted a systematic review and meta-analysis of the relevant study. There has been a discernible increase in the use of meditation as a therapeutic resource for the treatment of both physical and psychological issues in recent decades. Minor stress can trigger heart problems like poor blood flow to the heart muscle. This is a condition in which the heart doesn't get enough blood or oxygen. And long-term stress can affect how the blood clots. This makes the blood stickier and increases the risk of stroke.

As stated in Williams J.M.G. and Kabat-Zinn J. (2011), this involves considering human suffering as a part of how people cope with certain (negative) mental processes. Humans increase their suffering and anguish when they focus on negative emotions. According to Crane R.S. et al. (2017), mindfulness is an approach that aims to teach a new way of relating to negative emotions through a variety of processes and techniques (observing, describing, acting with awareness, not judging, and not reacting). These procedures and methods are predicated on the concept of focusing on the present. Various types of emotional distress or behavioural disturbance. Problems such as depression and anxiety are especially common. These conditions not only affect your emotional state but can also impact on your symptoms of heart disease.

Although the precise "active principle" underlying the efficacy of mindfulness remains elusive, processes such as self-awareness, focused attention, and emotion regulation are typically identified as playing a significant role in mindfulness's functioning (Tang Y.Y., et al., 2015). In addition, acceptance processes are commonly used as the primary emotion regulation technique in mindfulness meditation, as part of a broad spectrum of acceptance-based mindfulness therapies (Hofmann S.G. and Asmundson G.J., 2008). This is done in accordance with Hofmann and Asmundson's (2008) findings. Those with anxiety disorders tend to place a great deal of significance on the apprehensive sensations they experience as emblematic of their suffering. Patients are taught, through the practice of mindfulness, "to attend to a wide range of

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changing objects of attention while maintaining moment-to-moment awareness (mindfulness), rather than restricting one's focus to a single object such as a mantra" (J. Kabat-Zinn, 1982). In contrast to the traditional method of diverting one's attention to a single object, such as a mantra, this method involves focusing on multiple objects simultaneously. Evidence shows a strong association between stress and heart disease, particularly when it comes to chronic or long-term stress. However, research into the exact nature of the relationship is still ongoing.

Mindfulness-based interventions (MBIs), mindfulness-based programs, mindfulness-based therapies, and mindfulness-based training are some of the terms used to describe the strategies that can be implemented when employing this therapeutic resource (Ritter A., Alvarez I., 2020). Among these are mindfulness-based stress reduction (MBSR; Kabat-Zinn J., 1996), mindfulness-based cognitive therapy (MBCT; Segal Z.V., et al., 2002), mindfulness and acceptance-based intervention (MABI; Roemer L., Orsillo S.M., 2009), and mindful self-compassion (MSC; Germer C.K., Neff K.D., 2021, R.S. Crane et al., 2017). It is likely that the use of these guidelines has facilitated both the clinical application of mindfulness and the study of this practice's efficacy. Consequently, various systematic reviews and meta-analyses have been conducted.

MBIs have been demonstrated to be an effective therapy for a variety of psychological and medical disorders, typically with moderate effect sizes, including negative emotional strategies such as ruminating (Perestelo-Perez L. et al., 2017). MBIs have proved to be an effective treatment for a variety of psychological and physical disorders. MBIs are not only used to treat anxiety disorders but also depression, social functioning, prosocial behavior, pain, sleep disturbances, and cancer-related issues (Gotink R.A. et al., 2015).

Some Signs that stress is affecting the heart: persistently high blood pressure**,** an irregular heartbeat**,** chest pain**,** shortness of breath**,** dizziness or feeling faint**,** fatigue**,** swelling in the limbs

ANXIETY

The presence of dread and unease in the individual is what distinguishes anxiety. It is a completely normal reaction, and its intensity can differ significantly. A stressful environment activates the hypothalamus, the brain region responsible for regulating involuntary bodily functions including respiration, blood pressure, and pulse rate. This triggers the activation of the fight-or-flight response. Chow et al. (2022) state that the hypothalamus controls the autonomic

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nervous system of the organism, which consists of the following two systems:

1. The sympathetic nervous system, which initiates the "fight or flight" response and is accountable for accelerating bodily functions
2. The parasympathetic nervous system, which promotes rest and recuperation to restore the body's nervous system to equilibrium by acting as a restraint on bodily processes.

Couse and Effect of Anxiety

Generalized Anxiety Disorder is characterized by long-term anxiety that is not focused on any one thing or situation. Those suffering from generalized anxiety disorder experience persistent fear and indirect anxiety, and are extremely anxious about everyday issues. This is characterized by chronic anxiety associated with following symptoms: restlessness, fatigue, concentration problems, irritability, muscle tension, and sleep disturbances. Anxiety may be a sign of a medical or drug problem, and medical professionals should be aware of this. One of the biggest categories of anxiety disorders is that of specific phobias, which covers all situations where fear and anxiety are caused by a particular stimulus or condition. Patients often expect horrible consequences from experiencing something they are afraid of, which can be anything i.e from an animal or a place or body fluid or a specific condition. When people are exposed to their phobia, they may experience tremors, shortness of breath, or rapid heartbeat. With panic disorder, a person experiences short-term seizures and panic attacks, which are often manifested by tremors, confusion, dizziness, nausea and difficulty breathing. This panic attack, which is described by the APA as panic or discomfort that occurs suddenly and escalates in less than ten minutes, can take several hours (Meyer, E., 2021).

STRESS

Individuals are considered to be undergoing psychological stress, also known as stress, when they are subjected to mental, physical, or emotional duress. Routines and responsibilities that individuals maintain on a daily basis, including those pertaining to finances, work, and family, may serve as stressors or stimuli that induce stress. Additional external factors that may contribute to stress encompass adversity encountered during one's formative years, exposure to specific environmental conditions, poverty, discrimination, and social determinants of health imbalances. Ayling K. et al. (2022) posit that severe health issues, including the identification of cancer in oneself, a close friend, or a family member, can also induce stress.

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Cause and effect of stress

Personal factors happen to really cause so much stress than we can imagine and they also play a very important role in the various aspect of the life of a student. These factors vary from person to person that result in a different set of perceptions, attitudes and behaviours. Personal factors can take a form of so many ways which one way or the other affect student performance and stress them up. Some of these factors are as following (Essel, G., 2017):

Change in Living Environment

The reality that stress occurs when an event or stimulus requires us to change in some way makes a change in living environment a stressful experience. Apart from moving from home to school, our daily bumping into new faces on campus, disorders from roommates, etc. is tensed experience.

Change in Sleeping Habits

The somewhat burdensome nature of student-life causes a drastic change in sleep pattern. More to the point, this newly adopted pattern is unstable, as it is often tied to academic workloads and/or tasks at hand.

New responsibilities

Responsibilities related to holding a job while in school will certainly compound to a heavy academic load which is bound to result in stress. This is really challenging, as one has to financially rely on a job for sustenance.

Financial Difficulties

It is definitely not a conducive experience when a student has to handle dual challenges of academics and financial constraints. Life becomes very challenging when a student is behind on bills payment; for when deadlines are not met and bills stares at you, it is enough to get a student tensed and depressed.

Combining Job with studies

Many take part -time job or short term job during their period of studies. Some of them

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do this to gain experience for the future and also other to support their studies and themselves financially. Although working while in school is very beneficial to a student it also causes a lot of stress for them which might be too difficult to handle. Students will not have much time to study for their quizzes or exams and some even miss a lot of classes because they will be worn out or tired by the time they come back from their workplace. Students turn to face a lot of challenges when they combine work with studies.

Health Problems

Health issues are a concern to everyone because bad health causes a lot of damage to the life of a person. In the life of a student, health problems cause a lot of stress and these stress turn out to even make the conditions worst by adding insult to injury. Stress can lead to physical symptoms including headaches, upset stomach, elevated blood pressure, chest pain, and problems sleeping. Research suggests that stress also can bring on or worsen certain symptoms or diseases.

Poor Eating Habit

Poor nutrition and unhealthy eating habits can increase a student's stress level, according to the Physicians Committee for Responsible Medicine. Diets that can build stress levels in understudies incorporate those that are high in fat, caffeine, sugar and refined starches Examples of stress-inducing foods are sodas, energy drinks, doughnuts, candy bars, processed snack foods, white bread, and French fries. A healthy diet that helps to reduce stress includes foods that are low in fat and high in fibre and complex carbohydrates. Such foods include fruits, vegetables, whole grains, nuts and lean proteins.

Academic factors as a source of stress

There are some factors that happen in the academic curriculum that causes so much stress to students. So many things take place in the day to day activities of the academic processes that make students stress up.

DEPRESSION

Depression is widely recognized as a paramount challenge confronting the field of medicine in the twenty-first century. This is as a result of its substantial contribution to the deterioration of quality of life and the escalation of healthcare costs (Shimizu Y. et al., 2011).

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There is also a likelihood that patients will develop a recurrence of their cardiac disorders, which would result in an elevated risk of morbidity and mortality and an unfavorable prognosis. Based on reports published by the World Health Organization (WHO), psychological conditions are projected to surpass physical ailments as the foremost healthcare concern in countries worldwide by the year 2020. Pozuelo L. et al. (2009) found that the incidence of melancholy is notably greater in comparison to other psychiatric disorders. Cardiovascular diseases are the primary cause of disability in developing countries; depression ranks second in this regard.

Cause of the Depression

The subject of depression among young individuals is becoming an increasingly prevalent topic of discussion. A considerable cohort of scholars has devoted their professional lives to the investigation of this subject matter. The matter becomes of the utmost significance when one takes into account the consistent increase in the percentage of young people who display symptoms of depression. Diagnosing the condition can be difficult because the changes that are so characteristic of puberty frequently manifest. This category includes issues such as mood swings, explosiveness, propulsion difficulties, puissance, insomnia, and concentration problems, among others. These could potentially be the initial indications of melancholy as well. Antidepressant medication cannot identify a single cause due to the fact that the condition is influenced by a multitude of factors. The aforementioned elements encompass a spectrum of influences, including familial, environmental, and genetic factors, in addition to sociocultural components (Bembnowska, M., et al., 2015).

Effect of the Depression

Anxiety and depression almost always go hand in hand, and students may experience emotional effects as a result. Additionally, one may manifest symptoms of insomnia. Patients who are melancholy experience negative, pessimistic thoughts, perpetual self-deprecation, inferiority complexes, pessimistic outlooks, and hopelessness regarding the future. Additionally, anxiety is frequently present during depressive episodes. There is certain evidence suggesting that the progression of age significantly contributes to the development of melancholy in an individual. Lastly, among all medical issues, untreated depression is one of numerous psychosocial factors associated with patients who are required to have physician assistants (R. B. Jarrett, A. J. Rush, 199). This depressive disorder is linked to patients who are in need of the assistance of physician assistants.

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MINDFULNESS MEDITATION

The term "meditation" can refer to a variety of activities, each of which is designed to help the practitioner disengage from unconscious immersion in thoughts and emotions by focusing attention. In concentrative meditation, people focus on a single thing, like a word (mantra), a body part, or something outside of themselves. In mindfulness meditation, people pay attention to different things, like their breath, body, emotions, or thoughts, as they show up in the present moment (Kabat-Zinn J, 1990) (Segal ZV, 2002).

During the practice of mindfulness, each thought, feeling, or sensation that enters the field of awareness is acknowledged and accepted precisely as it is. A lack of judgment and an emphasis on the present moment define mindfulness. In their investigation, Bishop et al. established a two-component model of mindfulness (Shapiro SL, Schwartz GE, 2000):

- Self-regulating attention to immediate experience, enabling enhanced awareness of mental events occurring in the present moment.
- Adopting a curious, receptive, and accepting attitude toward one's experiences in each moment.

Mindfulness-Based Interventions

The preponderance of mindfulness-based clinical interventions is underpinned by Buddhist and Western psychology. Acceptance and Commitment Therapy (also referred to as ACT)

- Dialectical Behaviour Therapy (also known as DBT)
- Mindfulness-based stress reduction, which is also known as MBSR
- MBCT.

In both MBCT and MBSR, teaching mindfulness practices is the central focus of therapy (Brown KW et al., 2007). This review concentrates on MBCT and MBSR, given that mindfulness is only one of many components of ACT and DBT.

However, these treatments' effects on biomarkers related to disorders would greatly increase the proof of effectiveness and mechanism of mindfulness-based interventions, which are becoming more popular in psychiatry. If a treatment for generalized anxiety disorder (GAD)

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works, some important biomarkers should change. This means that the treatment worked and the patient is now better able to handle stress. Compared to those in the control group, those who participated in MBSR experienced a significantly greater reduction in ACTH AUC. Similarly, the AUC concentrations of inflammatory cytokines were significantly decreased in the MBSR group. This is the first combined hormonal and immunological evidence that MBSR may promote resilience to stress; we found greater reductions in stress markers among GAD participants in MBSR classes compared to those in the control group (Hofmann, S. G., and A. F. Gómez, 2017).

However, these treatments' effects on biomarkers related to disorders would greatly increase the proof of effectiveness and mechanism of mindfulness-based interventions, which are becoming more popular in psychiatry. If a treatment for generalized anxiety disorder (GAD) works, some important biomarkers should change. This means that the treatment worked and the patient is now better able to handle stress. Compared to those in the control group, those who participated in MBSR experienced a significantly greater reduction in ACTH AUC. Similarly, the AUC concentrations of inflammatory cytokines were significantly decreased in the MBSR group. Hoge, E. A., et al. (2018) present the first hormonal and immunological evidence that MBSR may promote stress resilience. We observed greater reductions in stress indicators in the MBSR group compared to the control group among GAD patients.

Evaluation of the efficacy of mindfulness-based stress reduction (MBSR) in the treatment of anxiety symptoms in adolescents According to the findings of the meta-analysis, mindfulness-based stress reduction (MBSR) was significantly more effective than control conditions in reducing post-treatment anxiety symptoms. However, the duration of the intervention, particularly the significance of a short-term intervention (one lasting less than 8 weeks), may have an impact on the efficacy of MBSR in reducing anxiety symptoms in young adults. There is accumulating evidence that mindfulness-based stress reduction (MBSR) is more effective than control conditions in treating anxiety symptoms in adolescents (Zhou et al., 2020).

Stress management for heart health: Occasional stress is a part of life, but when it becomes chronic or severe, it can negatively affect health. Wherever possible, it is beneficial to reduce avoidable sources of stress by:

- focusing only on the most important tasks
- asking for help with things that feel overwhelming

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- saying “no” to things that are not necessary
- delegating tasks to others

For unavoidable stress, it may help to learn relaxation techniques. These help bring heart rate and breathing down, returning the body to a calmer state. Some examples include:

- doing breathing exercises
- practicing yoga
- meditating
- People can also increase their resilience to stress by:
- keeping in touch with friends and family
- exercising regularly, as this can lower Trusted Source blood pressure and relieve stress
- getting enough sleep
- doing enjoyable things, such as group activities or hobbies
- avoiding stimulants, such as caffeine

CONCLUSION

This study demonstrated that depression, anxiety, and stress were moderate health problems of several University hospital and university staff. All of those disorders were found to be more common, those with no job satisfaction, and those who had conflict with their colleagues at the workplace. Depression and stress were more common in patients. Prevalence of stress was also more common in widowed staff. Therefore, it is recommended to design preventive strategies to reduce the risk of depression, anxiety, and stress and minimize the disease burden.

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REFERENCES

1. Meyer, E. (2021). Anxiety disorders: Causes, effects and therapy. Jcmedu.org. Retrieved November 20, 2023, from https://www.jcmedu.org/jcmedu-articles/anxiety-disorders-causes-effects-and-therapy.pdf
2. Essel, G. (2017). *Owusu Causes of students' stress, its effects on their academic success, and stress management by students Case study at Seinäjoki University of Applied Sciences*.
3. Williams J.M.G., Kabat-Zinn J. Mindfulness: Diverse perspectives on its meaning, origins, and multiple applications at the intersection of science and dharma. *Contemp. Buddhism.* 2011;12:1–18. doi: 10.1080/14639947.2011.564811. [CrossRef] [Google Scholar]
4. Crane R.S., Brewer J., Feldman C., Kabat-Zinn J., Santorelli S., Williams J.M.G., Kuyken W. What defines mindfulness-based programs? The warp and the weft. *Psychol. Med.* 2017;47:990–999. doi: 10.1017/S0033291716003317. [PubMed] [CrossRef] [Google Scholar]
5. Tang Y.Y., Hölzel B.K., Posner M.I. The neuroscience of mindfulness meditation. *Nat. Rev. Neurosci.* 2015;16:213. doi: 10.1038/nrn3916. [PubMed] [CrossRef] [Google Scholar]
6. Hofmann S.G., Asmundson G.J. Acceptance and mindfulness-based therapy: New wave or old hat? *Clin. Psychol. Rev.* 2008;28:1–16. doi: 10.1016/j.cpr.2007.09.003. [PubMed] [CrossRef] [Google Scholar]
7. Kabat-Zinn J. An outpatient program in behavioral medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary results. *Gen. Hosp. Psychiat.* 1982;4:33–47. doi: 10.1016/0163-8343(82)90026-3. [PubMed] [CrossRef] [Google Scholar]
8. Ritter A., Alvarez I. Mindfulness and Executive Functions: Making the Case for Elementary School Practice. *Eur. J. Investig. Health Psychol. Educ.* 2020;10:544–553. doi: 10.3390/ejihpe10010039. [CrossRef] [Google Scholar]
9. Kabat-Zinn J. *Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain and Illness.* Piatkus; London, UK: 1996. [Google Scholar]
10. Segal Z.V., Teasdale J.D., Williams J.M., Gemar M.C. The mindfulness-based cognitive therapy adherence scale: Inter-rater reliability, adherence to protocol and treatment distinctiveness. *Clin. Psychol. Psychot.* 2002;9:131–138.

DOI Link :: https://doi-ds.org/doilink/12.2023-54461314/UIJIR

doi: 10.1002/cpp.320. [CrossRef] [Google Scholar]

11. Roemer L., Orsillo S.M. *Mindfulness- and Acceptance-Based Behavioral Therapies in Practice.* Guilford Press; New York, NY, USA: 2009. [CrossRef] [Google Scholar]
12. Germer C.K., Neff K.D. Self-compassion in clinical practice. *J. Clin. Psychol.* 2013;69:856–867. doi: 10.1002/jclp.2021. [PubMed] [CrossRef] [Google Scholar]
13. Crane R.S., Brewer J., Feldman C., Kabat-Zinn J., Santorelli S., Williams J.M.G., Kuyken W. What defines mindfulness-based programs? The warp and the weft. *Psychol. Med.* 2017;47:990–999. doi: 10.1017/S0033291716003317. [PubMed] [CrossRef] [Google Scholar]
14. Gotink R.A., Chu P., Busschbach J.J., Benson H., Fricchione G.L., Hunink M.M. Standardised mindfulness-based interventions in healthcare: An overview of systematic reviews and meta-analyses of RCTs. *PLoS ONE.* 2015;10:e0124344. doi: 10.1371/journal.pone.0124344. [PMC free article] [PubMed] [CrossRef] [Google Scholar] Retracted
15. Chow, W. K., Hetherington, K., McGill, B. C., Sansom-Daly, U. M., Daly, R., Miles, G., … Wakefield, C. E. (2022). "Like ships in the night": A qualitative investigation of the impact of childhood cancer on parents' emotional and sexual intimacy. *Pediatric Blood & Cancer*, *69*(12), e30015. doi:10.1002/pbc.30015
16. Ayling K, Jia R, Coupland C, et al. Psychological predictors of self-reported COVID-19 outcomes: Results from a prospective cohort study. *Annals of Behavioral Medicine* 2022; 56(5):484–497. [PubMed Abstract]
17. Shimizu Y, Yamada S, Miyake F, Izumi T; PTMaTCH Collaborators. The effects of depression on the course of functional limitations in patients with chronic heart failure. J Card Fail. 2011;17:503-510. https://doi.org/10.1016/j.cardfail.2011.01.005
18. World Health Organization Global Status Report on Noncommunicable Diseases. [(accessed on 24 June 2022)];2014 Available online: http://www.who.int/nmh/publications/ncd-status-report-2014/en/
19. Pozuelo L, Zhang J, Franco K, Tesar G, Penn M, Jiang W. Depression and heart disease: what do we know, and where are we headed? Cleve Clin J Med. 2009;76:59-70. https://doi.org/10.3949/ccjm.75a.08011
20. Bembnowska, Marta & Jośko-Ochojska, Jadwiga. (2015). What causes depression in adults?. Polish Journal of Public Health. 125. 10.1515/pjph-2015-0037.

21. R. B. Jarrett, A. J. Rush Short-term psychotherapy of depressive disorders: current status and future directions, Psychiatry 57(2) (1994) 115–132. DOI: https://doi.org/10.1080/00332747.1994.11024675
22. Kabat-Zinn J. Full catastrophe living: using the wisdom of your body and mind to face stress, pain and illness. New York, NY: Dell Publishing; 1990.
23. Shapiro SL, Schwartz GE. Intentional systemic mindfulness: an integrative model for self-regulation and health. Adv Mind Body Med. 2000;15:128-134.
24. Brown KW, Ryan RM, Creswell JD. Mindfulness: theoretical foundations and evidence for its salutary effects. Psychol Inq. 2007;18(4):211-237.
25. Hofmann, S. G., & Gómez, A. F. (2017). Mindfulness-based interventions for anxiety and depression. The Psychiatric Clinics of North America, 40(4), 739–749. doi:10.1016/j.psc.2017.08.008
26. Hoge, E. A., Bui, E., Palitz, S. A., Schwarz, N. R., Owens, M. E., Johnston, J. M., … Simon, N. M. (2018). The effect of mindfulness meditation training on biological acute stress responses in generalized anxiety disorder. Psychiatry Research, 262, 328–332. doi:10.1016/j.psychres.2017.01.006
27. Zhou, X., et al. (2020). Effects of mindfulness-based stress reduction on anxiety symptoms in young people: A systematic review and meta-analysis. Psychiatry Research, 289, 113002. https://doi.org/10.1016/j.psychres.2020.113002

DOI Link :: https://doi-ds.org/doilink/12.2023-54461314/UIJIR