



Stress Management Health Education and Relaxation Therapy Training for Children and Adolescents in Saint Beatrix Orphanage Sidoarjo

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Abstract: The Covid-19 pandemic has become a stressful situation for teenagers and children, thus affecting their health and immune system. Prolonged stress (chronic stress) impacts the body's immune system. Stress has an emotional, cognitive, physiological, and behavioural impact. Individuals with high-stress levels will have more difficulty manifesting positive thoughts, emotions, and behaviours. Good mental health is essential for a person to deal with stress in life and is vital in the physique health of adults and children. Therefore, community service was carried out to help with stress management and relaxation therapy. This community service aims to reduce stress among children and adolescents in Saint Beatrix orphanage Sidoarjo. This program involved thirty female children and adolescents in Saint Beatrix orphanage Sidoarjo. They took a pre-test, which indicated a low knowledge of stress management. The results showed that the participants had poor knowledge about stress management. Methods used for stress management education were lectures and discussions. Evaluation of the program successfully before and after the activity was measured after the participants filled out a questionnaire that measured their knowledge about stress management. Meanwhile, the evaluation of relaxation therapy training was carried out through demonstration. After conducting the program, it showed that the number of participants with a high level of knowledge went up to 77%. Based on the Wilcoxon Sign Rank Test result, it's known that the p -value = 0,000 with ($\alpha < 0.05$), which means this program may enhance participants' knowledge.

Keywords: Adolescent; Children; Stress Management Education; Relaxation Therapy Training

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INTRODUCTION

The Covid-19 pandemic has become a stressful situation for teenagers and children, thus affecting their health and immune system. The pandemic has inflicted serious long-term or short-term effects such as financial, nutritional, and educational crises on children (Budiyati

& Oktavianto, 2020). During the pandemic, teenagers and children experienced difficulties because of insufficient technological knowledge, the cost of the internet package, and the limited interaction between students or students and teachers. Students adapt to new changes in online learning. Long

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quarantine duration would also affect teenagers' mental health (Hawes, Szenczy, Klein, Hajcak, & Nelson, 2021; Purwanto et al., 2020). Mental health determines cognitive and emotional well-being and the absence of mental disorders (Neece, Green, & Baker, 2012). Good mental health is essential for dealing with stress in life and is vital in the physique health of adults and children (Augustine, Prickett, & Kimbro, 2017).

Stress occurs due to frustration, conflict, pressure, and crises during the pandemic. Frustration is an imbalanced psychic disturbance. Conflicts disrupt the balance in meeting several needs or goals. Factors that cause stress are called stressors. Stressors could be physiological (e.g., cold, hot environment, infection, pain, and beating), psychological (e.g., fear, worry, anxiety, anger, disappointment, loneliness, romance), and socio-cultural stressors (unemployment, divorce, conflict, and guilty) (Riazul & Harri, 2021).

Stressors likely cause positive and negative changes in the body, eustress and distress, respectively. Positive stress can motivate and inspire people to have safe health. On the other hand, distress refers to physical or mental suffering causing anger, tension, confusion, and anxiety (Yunus et al., 2021).

Prolonged stress (chronic stress) impacts the body's immune system. Stress has an emotional, cognitive, physiological, and behavioural impact. Individuals with high-stress levels will have more difficulty manifesting positive thoughts, emotions, and behaviours (Lindholdt et al., 2021; Yan, Gan, Ding, Wu, & Duan, 2021). On the other hand, emotional stress includes psychological pressure, anxiety, and depression (Perry & Potter, 2021). Psychological stress can trigger the release of cytokines that play an essential role in the immune system (Réus et al., 2015). Individuals exposed to psychological stress will stimulate the release of the cortisol hormone, which affects the immune system's activity by suppressing cell differentiation and

proliferation. Excessive production of cortisol and catecholamines due to the stress response can significantly impact the duration of wound healing due to changes in the immune system and decreased immune response (Sukarni, Priyono, Mita, & Junaidi, 2021; Takahashi, Flanigan, McEwen, & Russo, 2018).

At a certain level, humans need stress as motivation. However, stress that is too high and not managed properly can cause harmful effects that cause feelings of burden, sleep disturbances, anxiety, and depression. Some of the adverse effects of stress observed on adolescents and children are psychosomatic symptoms, poor emotional regulation, anxiety, depression, and health problems (Bothe et al., 2014). Adolescents who have not managed stress positively can experience psychological pressure causing physical and mental illnesses, such as anxiety, depression, sleeplessness, fatigue, personality changes, and loss of concentration (Agustan, 2017). In addition, another negative impact of stress on teenagers will prevent the development of potential and talents if it is not adequately managed (Hartini et al., 2020).

The existence of stress or stressors that trigger stress needs to be minimized with good stress management skills. Children and adolescents need to develop the skills to be more able to carry out appropriate coping strategies (Hartini et al., 2020). Stress management is essential to maintain mental health and the body's immunity during a pandemic (Lidiana, Gati, & Husain, 2021). One of the therapies to manage stress is the five-finger hypnosis, a self-hypnosis that can have a high relaxation effect (Simanjuntak *et al.*, 2021). It is an art of verbal communication that aims to bring the client's mind waves into trance (alpha/theta waves). It also may reduce stress and anxiety by involving the parasympathetic nerves, relaxing the respiratory system, and reducing heart rate, blood pressure, and physical tension (Evangelista *et al.*, 2016). Therefore,

community service was carried out to help with stress management and relaxation therapy.

METHOD

Participants

Based on the preliminary survey, it was found that 30 children and young women lived in the Santa Beatrix Orphanage in addition to four caregivers. The children and young women came from various family backgrounds, including orphans, economic difficulties, and a history of neglect. The children came from outside Java but from Papua, East Nusa Tenggara, and Kalimantan. Children and adolescents spent more time in homes and schools online during the pandemic. Some reported they were sometimes stressed due to school boredom and online school tasks. During online learning, unexpected behaviour might occur. For example, students were upset because they did not understand what the teacher was saying; they had too many assignments and could not answer the teacher's questions, and so on (Tanjung, 2019). One of the factors influencing teenagers' stress levels is difficulty studying from home due to the pandemic. Online learning has become less practical (Ananda & Apsari, 2020).

Stress or stressors that trigger stress should be minimized with good stress management skills. Stress management skills developed help children and adolescents be more skilled in carrying out appropriate coping strategies (Hartini *et al.*, 2020). Health workers, especially mental health nurses, could play a strategic role in promoting and preventive health measures, especially excessive stress prevention, to achieve optimal adolescent mental health during the pandemic. The consultation with the caretakers in the Santa Beatrix Orphanage showed that adolescents had stress management counselling and training in the five-finger hypnosis relaxation therapy to achieve optimal mental health and a positive quality of life.

The material presented in the stress management training was adapted from the concept of Stress Management by Gail W. Stuart (2016), which consisted of three indicators, namely introduction of stress concept, strategies for dealing with stress, and stress management techniques in daily application. On the other hand, the five-finger hypnosis therapy is an art of verbal communication that aims to bring the client's mind waves into trance (alpha/theta waves). It aims to control oneself, eliminate anxiety through the parasympathetic nerves, and reduce heart rate, respiratory rate, blood pressure, sweat rate, and others (Evangelista *et al.*, 2016). The five-finger hypnosis affects the brain system that releases hormones that can trigger stress. With the five-finger hypnosis, people will be relaxed. It affects the body system and creates a sense of comfort and calmness (Simanjuntak *et al.*, 2021). It is a relaxation technique that has widely been studied in Indonesia and proven effective in reducing stress and anxiety not only in adolescents but also in hospitalized patients with physical disorders (Rizkiya, PH, & Susanti, 2017), heart failure patients (Febtrina, 2019), preoperative patients (Pardede, Eli, & Sirait, 2021), and elderly (Wijayanti, Anisah, & Lesmana, 2021). Research conducted by Dekawati (2021) and Utami *et al.* showed that five-finger hypnosis effectively reduces stress and anxiety in adolescents during the pandemic (Dekawaty, 2021; Utami *et al.*, 2021).

Materials and Tools

The materials and tools used in this activity are (a) laptop or mobile phone, (b) audio player, (c) Zoom, and (d) PowerPoint.

Activity Implementation Procedure

Preparation phase

The preparation stage began with discussions and socialization with the caretakers of the orphanage. The discussion aimed to analyze and socialize community service activities in the form of counselling and training. The next

stage is a review activity to determine adolescent participants and their domicile. Following preparation, stage is the procurement of facilities and equipment used for activities.

Implementation phase (Location, activity duration, and method)

The location of the activity was in the Santa Beatrix Orphanage in Sidoarjo. However, considering the increasing number of Covid-19 cases in Surabaya and Sidoarjo, an online meeting on Zoom was used in this community service on February 26, 2022, from 09.00 AM to 1.00 PM. Thirty children and adolescents participated in the agenda. A pre-test was conducted on 30 children and adolescents before participating in the activity. The results showed that the participants had poor knowledge about stress management. Methods used for stress management education were lectures and discussions. While the five-finger hypnosis training was conducted as follows:

The implementation team guided each step of the five-finger hypnosis method. Before doing the first step, the participants were asked to concentrate and relax while closing their eyes. The first step was touching the thumb with the index finger while participants were reminiscing about being healthy; the second step was touching the thumb with the middle finger while they were reminiscing about loved ones; the third step was touching the thumb with the ring finger while they were reminiscing about a compliment they ever received.

The last step was touching the thumb with a bit of a finger while thinking about the most beautiful place they had ever visited. After completing these steps, they were asked to repeat the steps without guidance from the implementation team. If they experienced difficulties, the implementation team would guide them until they could do the steps independently (Simanjuntak et al., 2021).

Data Evaluation Technique

Evaluation of the program's success before and after the activity was measured after the participants filled out a questionnaire that measured their knowledge about stress management. Meanwhile, the evaluation of relaxation therapy training was carried out through demonstration. After the community service finished, participants were expected to have optimal mental health, increase knowledge about stress management, and independently perform the five-finger hypnotic relaxation therapy.

RESULTS AND DISCUSSION

The post-test results found that their knowledge about stress management and the five-finger relaxation therapy improved. Changes in their level of knowledge can be seen in Table 1. According to the pre-test and post-test results summarized in the table above, it was concluded that the number of participants with a high level of knowledge went up to 77%.

Tabel 1 Overview of Respondents' Knowledge Before and After The Community Service

Knowledge Level	Before Community Service		After Community Service	
	Total	Percentage	Total	Percentage
Low	15	50%	7	23%
High	15	50%	23	77%
Total	30	100%	30	100%

The statistical test used Wilcoxon signed-rank test with a significance level of $\alpha = 0.05$. The results showed an effect of this

community service on the group's level of knowledge ($p = 0.000$). It can be concluded that the activity

positively affects increasing participants' knowledge.

Public knowledge about stress management procedures is essential during this pandemic. Knowledge is also the basis to help problem-solving. Health education is one of the efforts to improve cognitive

ability, and information gathering is one factor that affects knowledge (Budiman, 2014). Besides, knowledge is essential in shaping individual behaviour (Notoatmodjo, 2012). The statistical description of the knowledge of respondents before and after KKN is shown in Table 2

Tabel 2 The Statistical Description of Respondents' Knowledge Before and After The Community Service

Knowledge Level	N	<i>p-Value</i>
Positive Ranks	30	0.000
Negative Ranks	0	
Ties	0	
Total	30	

Short-term stress enhances protective immune processes involved in wound healing, vaccination, and anti-infective and anti-cancer responses. In contrast, chronic stress suppresses these immune responses and exacerbates the immunopathological response. When an individual is exposed to stress for a prolonged period, the body adapts by increasing the hormone cortisol and decreasing immune cells responsive to cortisol. This will lower the level of immunity and thus make people susceptible to contracting diseases or worsening the disease severity in the immune system (Cohen, Janicki-Deverts, Crittenden, & Sneed, 2012; Dantzer, Cohen, Russo, & Dinan, 2018; Dhabhar, 2014). The number of tasks

assigned to students is likely a different stressor interfering with students' mental health. One factor causing adolescent stress is difficulty in studying from home due to the pandemic. Online learning has become less practical (Ananda & Apsari, 2020). Stress management and relaxation therapy focus on reducing the secretion of cortisol and catecholamines, affecting the immune system's balance. Daily relaxation therapy sessions will change perceptions of stress through cognitive restructuring. When doing relaxation therapy, individuals are encouraged to imagine a healthy body or pleasant feelings (Zaki, Ahmed, & Sayed, 2018).

Pictures of community service activities are shown in Figure 1.



Figure 1 Pictures of community service activities

The community service in the Santa Beatrix Orphanage in Sidoarjo was carried out by Anindya Arum Cempaka, Ira Ayu Maryuti, and

Abigael Grace Prasetiani. The participants perceived this activity as helpful and entertaining mainly because it gave new knowledge about

dealing with stress during the pandemic. The team also interviewed the caretakers of the orphanage about the participants' progress after the activity. The orphanage expressed their gratitude for having this useful service for increasing knowledge and preventing stress in adolescents. In the health education and training, the participants attentively listened and actively asked questions about stress management and the five-finger hypnosis despite online meeting via Zoom.

CONCLUSION

Mental health education applied as early as possible will affect the stress management ability of adolescents to reduce stress and develop a positive attitude. Based on the questionnaire results, the number of participants with good knowledge increased after participating in this community service. It could be concluded that their knowledge about stress management and five-finger hypnotic relaxation therapy increased. It is suggested that they perform relaxation therapy regularly and stress management effectively to prevent the detrimental effects of stress.

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