EMOTIONAL EXPERIENCE WRITING MODEL: AN INTERVENTION FOR ENHANCING PROBLEM-SOLVING SKILLS AMONG ADOLESCENTS WITH SOCIO-EMOTIONAL PROBLEMS IN ORPHANAGES

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Abstract

This study aims to determine the effectiveness of emotional experience writing (EXPRIT) model in enhancing the problem-solving skills among adolescents with social-emotional problems in orphanages. The EXPRIT model is an intervention based on cognitive psychotherapy that can train adolescents' socio-emotional problem-solving skills. The prevalence study found that 26.9% had behavioral disorders and 10.2% of emotional disorders of orphans were found in the 10-14 years old age group. Initial interviews conducted for this study indicated that children in the orphanage experienced problems such as difficulties in adapting at their environment in the orphanage and some emotional behavior problems. A total 15 participants from various orphanages were included in a one-group pre-test and post-test experimental design research. Problem-solving skills were assessed using an adapted "Teen Wellness Self-Assessment" scale. The sampling technique used was purposive sampling, and the data were analyzed using the paired sample *t*-test. The findings demonstrate a significant positive impact of the EXPRIT intervention on enhancing problem-solving skills in orphaned adolescent, $t(14) = 4.503$, $p = .000$; Cohen's $d = 1.163$, suggesting substantial practical significance with potential implications for addressing socio-emotional challenges in this population. Despite its promising results, this current study was limited by its small sample size. These findings highlight the importance of targeted interventions in addressing the needs of orphaned youth dealing with socio-emotional problems.

Keywords: emotional experience writing; model intervention; orphanage youth; problem-solving; socio-emotional

INTRODUCTION

Data from the PPPA (2019) in the Child Protection Index (IPA) recorded that in 2018 there was 4.82% of children did not live with their parents, meaning that these children lived in social institutions, namely foster parents or orphanages. The orphanage is a social welfare institution that has the responsibility to provide social welfare services to abandoned children, to provide substitute or guardianship services for children in meeting the physical, mental and social needs of foster children so that they have broad, appropriate and adequate opportunities for their personality development (Putri & Sidiq, 2017). Teenagers who live in orphanages often experience difficult times finding their identity and experience unstable emotions (Shulga et al., 2016). The study of the prevalence of behavioral and emotional problems in children in orphanages found negative behaviors such as aggression and other emotional problems that made children vulnerable to mental health risks.

Approximately 26.9% exhibited behavioral disorders, while 10.2% displayed emotional disorders, with both prevalent in the 10-14 age group, specifically among pre-adolescents and early adolescents (Rahman et al., 2012). The description of the psychological development of children in orphanages has the following behaviors: inferior, passive, withdrawn, easily discouraged, fearful and anxious, and prefer to be alone, so they have difficulty establishing social relationships with the environment (Hartini et al., 2000). Overcoming problems (problem-solving) in

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orphanage youth requires different times and ways. Through a comprehensive analysis of the interviews we conducted with the caretaker responsible for overseeing the daily lives of the children residing within the orphanage, our research revealed a noteworthy observation: the children in the orphanage encountered a range of challenges, prominently including initial difficulties in adapting to their new environment upon entry into the facility, as well as the manifestation of various emotional behavior problems among some of these young residents.

Pennebaker (2018) revealed in his research that keeping secrets about trauma is unhealthy. It makes sense that if people reveal their secrets, it will improve their health. From the perspective of this research, there is concern about people sharing their secrets with others, as there is likely to be a complicated social dynamic involved. Therefore, the decision was made to ask participants to write about the most traumatic experiences of their lives or, for those in the control condition, to write about superficial topics (Pennebaker, 2018). Expressive writing tends to produce small yet significant improvements on adolescents' well-being (Travagin et al., 2015). With a significant focus on the emotional experience that adolescents have, we developed this method into a new term: "Emotional Experience Writing (EXPRIT)". Emotional Experience Writing is an intervention that expresses the emotional experience felt through writing. One of the interventions in cognitive psychotherapy can practice problem-solving skills on problems of depression, anxiety, and stress, to reflect on deepest thoughts and feelings towards unpleasant and pleasant events. This intervention in this study aimed to analyze the differences in problem-solving skills of orphanage youth on socio-emotional problems before and after being given the Emotional Experience Writing model intervention.

Popper (in Van Merrienboer, 2013) stated that individuals routinely engage in the process of addressing problems within both personal and occupational spheres. When viewed as a skill, problem-solving is perceived as an ability that evolves through continuous practice and experience (Van Merrienboer, 2013). Problem-solving skills referred to the set of cognitive-behavioral activities by which a person attempts to discover or develop effective solutions or ways of coping with real-life problems (Nezu et al., 2012). The factors that influence problem-solving according to Holidun (2017) are (a) the experience factor, (b) influential factor, and (c) cognitive factor. The stages in problem-solving itself include (a) attention and interest in problems, (b) collecting things that can be used as information to solve a problem, (c) choosing possible solutions that have been chosen, and (d) implementing solutions objectively. Mayer and Wittrock (in Rahman, 2019) mention aspects of problem-solving, namely (a) self-confidence in solving problems, (b) approach or avoidance style (approach-avoidance style), and (c) personal control.

Adolescence is a period of significant development that begins with the onset of puberty—biological, cognitive, psychosocial, and emotional (Bonnie & Backes, 2019). Adolescent social development will be accompanied by emotional development while completing developmental tasks. According to Hurlock (2015), social development is acquiring behavior following social demands. Individuals who can adapt to social norms and rules will become people who can play a role in society. While emotions are a form of encouragement for the individual to act, an immediate plan to overcome a problem has been instilled gradually. Emotions serve as a motivator for individuals to take action, and as they navigate social challenges, they gradually develop plans to overcome problems. This implies that there is an interplay between emotional development and problem-solving skills as adolescents progress through their social development.

High frequency and intensity of positive emotions, low frequency and intensity of negative emotions, instability of positive and

negative emotions, and low emotional clarity have been associated with poor psychological outcomes in adolescents (Bailen et al., 2018). Although adolescent emotions are often very strong, uncontrollable, and seem irrational, in general, from year to year, there is an improvement in emotional behavior (Hurlock, 2015). Strategies that can be done to maintain emotional stability are to adjust to solving problems through emotional control and the ability to be resilient to stress. Stress resilience increases the ability to regulate emotions because it enhances self-esteem and the perception of social support (Surzykiewicz et al., 2022). This was conveyed by Sisto et al. (2019) that broadly speaking, through the acts of resilience related to partial ends, the individual becomes more and more persistent in the orientation towards their personal fulfillment.

The research problem at hand stems from the pressing issue of behavioral and emotional problems among children residing in orphanages, particularly those in the 10-14 years old age group, where a significant proportion exhibits behavioral and emotional disorders. The primary purpose of this study is to assess whether an intervention, Emotional Experience Writing (EXPRIT), can effectively enhance the problem-solving skills of orphanage youth concerning their socio-emotional challenges. Adolescents in orphanages often encounter difficulties in identity formation and managing their emotions, making it vital to address these issues comprehensively. The study aims to contribute to the well-being and socio-emotional development of these adolescents by employing the EXPRIT intervention.

The research hypothesis posits that participation in the Emotional Experience Writing (EXPRIT) intervention will significantly improve the problem-solving skills of orphanage youth in managing their socio-emotional challenges. The hypothesis is constructed based on existing literature suggesting that writing interventions, like EXPRIT, can lead to health improvements, particularly in managing emotions and confronting traumatic experiences. It also considers the inherent challenges faced by adolescents in orphanages in terms of emotional behavior and identity formation. It is anticipated that by engaging in structured expressive writing activities, these adolescents will exhibit enhanced problem-solving capabilities concerning their socio-emotional issues. The study aims to validate this hypothesis by conducting pre-test and post-test assessments of problem-solving skills after the intervention and comparing the results.

METHOD

The current research employs a one-group pre-test and post-test experimental design. In the provision of the Emotional Experience Writing intervention, the material model is designed based on the topic of the problems experienced by teenagers at the Orphanage to improve problem-solving skills. The utilization of research instruments for this study is a common Likert scale (range 0-4), known as the self-assessment "teen wellness", based on prior research by Orth et al. (2022). This scale comprises 13 mental well-being indicators, including (1) self-control, which is linked to the ability to control and regulate one's emotions and thoughts; and (2) resilience, which is associated with ability to cope with and recover from adverse situations or stress. The example of the items such as 'I respond to changes in my life with a positive attitude', reflecting aspects like self-control and resilience. Participants received the instrument in Likert form, with statements akin to the provided item example. The instrument was administered twice: first as a pretest in the initial meeting before the session and then as a post-test in the final meeting after all interventions had been completed. This approach allowed for the assessment of participants' emotional handling and stress resilience skills, providing scores that depict both high and low proficiency levels in the specified mental well-being indicators.

According to Pennebeker (2016), the mechanism in writing is by writing very emotional things without regard to grammar and diction within 20-35 minutes. This activity can be done four times a week for 4-5

weeks. Different experiments have variously asked participants to write for one to five days, ranging from consecutive days to sessions separated by a week, ranging from 10 to 45 minutes for each writing session, for anywhere from 1 to 7 sessions (Pennebaker, 2018). Results from Emotional Experience Writing are not allowed to be re-read but are saved and opened when desired. The experimental procedures, integral to the intervention module in this study, are delineated in Table 1.

Table 1.
Experimental Procedures

Phase	Procedure	Method	Description
1. Pretest	Behavioral Screening	Observation	Pretest observation to assess behavior
	Teen Wellness Scale	Self-assessment	Subjects fill Teen Wellness Scale
	Rapport-Building	Interactive	Introduction, icebreaking, and rapport-building session
	Mini Games and Ice-Breaking Session	Interactive	Subjects introduce themselves, discuss the activity's purpose, and explain EXPRIT, followed by a Q&A session
2. Treatment	EXPRIT Session 1	Observation	Subjects write about their childhood emotional experiences
	EXPRIT Session 2	Observation	Subjects write about people who have cared for and supported them
	EXPRIT Session 3	Observation	Subjects write about experiences that have made them feel anger, sadness, and disappointment
	EXPRIT Session 4	Observation	Subjects write about coping strategies and engage in oral discussion
	EXPRIT Session 5	Observation	Subjects expresses hopes and desires through writing, especially for situations where verbal expression is difficult
3. Posttest	Group Inquiry	Discussion	Group discussion and inquiry after the intervention
	Teen Wellness Scale	Self-assessment	Subjects fill out the Teen Wellness Scale for post-intervention assessment

This research used the purposive sampling technique. The sample criteria in this study have the following characteristics: 1) teenagers aged 12-18 years; 2) stay in the Orphanage for at least two years (based on interviews that reveal the results of observations made by orphanage administrators over many years); 3) minimum education of junior high school; and 4) willing to participate in the Emotional Experience Writing (EXPRIT) intervention from the beginning to the end of the session.

The experiment data was analyzed using paired sample *t*-test.

RESULT AND DISCUSSION

The research was carried out at two locations: the youth of the Tunas Harapan Orphanage (girls), consisting of seven subjects, and the Tunas Melati Orphanage (boys), totaling eight subjects. The description of the characteristics of the research subjects is shown in Table 2.

  Table 2.

Frequency Distribution of Subject Characteristics

Characteristic	TMO		THO	
	f	%	*f*	%
Gender				
Male	8	100	-	-
Female	-	-	7	100
Education				
Jr. High School	5	62.5	4	57
Sr. High School	3	37.5	3	43
Status				
Orphan	1	12.5	-	-
Orphan (father)	2	25	-	-
Orphan (mother)	-	-	2	28.6
Impoverished	5	62.5	4	57.1
Convert	-	-	1	14.3
TOTAL	8	100	7	100

Note. $N = 15$. TMO = Tunas Melati Orphanage, male orphanage; THO = Tunas Harapan Orphanage, female orphanage.

Aspect	Indicator
Problem-Solving Assurance	Coping Strategy
Problem solving approach style	Cognitive Adjustment Displacement Optimist Problem Analysis Self-Efficacy Positive Attitude
Personal Control	Emotional Regulation Impulse Control

Based on the results of measuring problem-solving skills of orphanage youth on socio-emotional problems before and after the Emotional Experience Writing intervention through quantitative data analysis, paired *t*-test test on paired sample data by measuring aspects: problem-solving assurance, problem-solving approach style, and personal control obtained the results presented in Table 4.

Table 4.
Pretest and Posttest Mean Scores of Subjects

	Aspects								
	DP	CA	CS	ER	IC	OP	PA	SE	PA
Tunas Melati Orphanage ($n = 8$; male)									
Pretest	60	34	59	13	52	29	17	35	18
Post test	74	51	71	29	51	45	19	45	20
Tunas Harapan Orphanage ($n = 7$; female)									
Pretest	37	54	41	12	44	24	12	29	13
Post test	61	51	51	17	54	24	26	34	15

Note. The table shows the mean scores of each aspect. DP = Displacement, CA = Cognitive Adjustment, CS = Coping Strategy, ER = Emotional Regulation, IC = Impulse Control, OP = Optimist, PA = Problem Analysist, SE = Self-Efficacy, PA = Positive Attitude.

Data collection on the pretest results was carried out on September 8, 2021, at the Tunas Harapan Orphanage and on December 12, 2021, at the Tunas Melati Orphanage. Aspects measured in problem-solving skills include self-confidence in solving problems, approach or avoidance style, and personal control with indicators seen from the level of stress resistance and emotional handling (Rahman, 2019), which can be seen in Table 3.

Table 3.
Aspects and Indicators of Problem-Solving

Based on both pretest and post-test tables on 15 research subjects above, it shows that Emotional Experience Writing (EXPRIT) Intervention affects the subject's problem-solving skills. This can be seen from the various increases in each indicator's problem-solving aspect. In the treatment phase, which was carried out for five meeting sessions, there was an increase in scores for male adolescent subjects' problem-solving approach style and problem-solving beliefs. The Displacement indicator increased in score by 14, the Cognitive Adjustment indicator by 17, and the Coping Strategy indicator by 12.

The female adolescent subject demonstrated increased problem-solving approach style scores (Displacement and Coping Strategy), with a 24-point rise in the DP indicator and a 10-point increase in CS. However, the cognitive adjustment indicator decreased by 3 points. In the personal control aspect (Emotion Regulation, Impulse Control, Optimism, Problem Analysis, Self-Efficacy, Positive Attitude), five indicators improved, suggesting that the Emotional Experience Writing (EXPRIT) intervention influences personal control in adolescents in orphanages with socio-emotional challenges.

Based on the Figure 1 and Figure 2, there are variations in scores based on problem-solving indicators for male and female orphanages. In Table 5, we have outlined the various stages and sessions of the treatment program, each with its distinct description, focus theme, and key findings or results. This table serves as a valuable overview, allowing us to delve into the details of the treatment's progression and its impact on the participant.
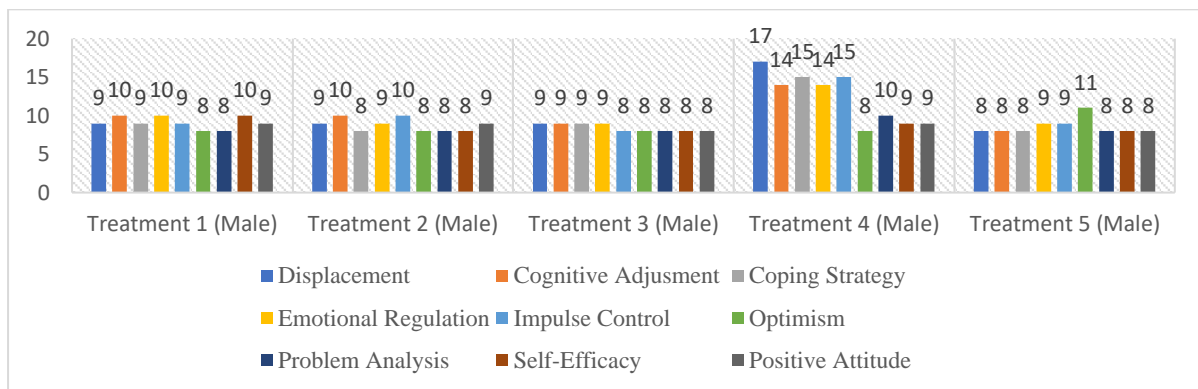

Figure 1.
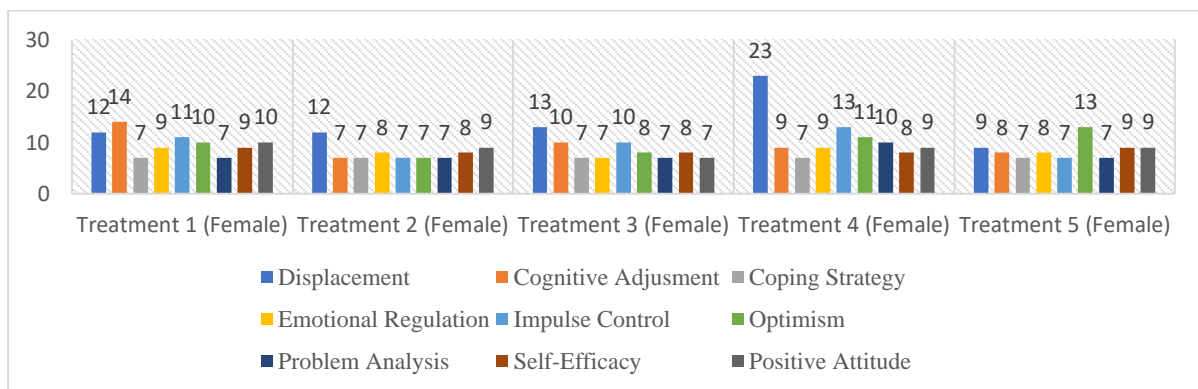Score of Problem-Solving Indicators Based on the Subject's Writing at the Tunas Melati Orphanage

Figure 2.
Score of Problem-Solving Indicators Based on the Subject's Writing at the Tunas Harapan Orphanage

Table 5.
Key Findings on the EXPRIT Intervention

Session	Description	Focus Theme	Key Findings/Results
1	Emotional expression related to childhood	"My Childhood Experiences (*Pengalaman Masa Kecilku*)" theme	- Differences in writing frequency between male and female subjects. - Variations in problem-solving skill indicators in both groups. - Adolescent girls showed cognitive adjustment as dominant. - Male adolescent subjects had minor score differences.
2	Writing about "Love Me (*Sayangi Aku*)"	"Love Me (Sayangi Aku)" theme	- Male adolescents maintained minor score differences. - Adolescent girls showed displacement as a dominant indicator.
3	Expressing anger and disappointment about unresponsive people	"Listen to Me (*Dengarkan Aku*)" theme	- Male group had minor score differences on all indicators. - Adolescent girls showed variations in indicator dominance. - Displacement and coping strategy indicators prominent.
4	Expressing emotions and discussing together	"Goodbye Stress, Angry, and Worry" theme	- Emotional catharsis observed. - Displacement indicators highly dominant in both groups. - Subjects actively engaged in discussion.
5	Writing hopes for the future and re-evaluation	"My Future Hopes (*Harapanku*)" theme	- Optimistic indicator scores were the highest in both groups. - Subjects discussed and reflected on previous sessions. - Application of interventions discussed and encouraged.

Based on Table 6, it is known that the problem-solving ability scores between pretest and posttest for young women at the Tunas Harapan Orphanage showed an increase of 8.2 points in terms of the mean, from 38.37 before intervention compared to 46.57 after the intervention, $t(6) = 3.480$, $p = .013$. The group of young men at the Tunas Melati Orphanage illustrated an increase in problem-solving abilities as well. This can be seen from the mean scores obtained between the pretest ($M = 39.63$) and posttest ($M = 49.88$), illustrating an increase of 10.25 points, $t(7) = 3.043$, $p = .019$. Partial analyses for both groups indicate statistically significant results, $p < .05$.

Table 6.
Separate Paired *t*-Test Result at Tunas Harapan and Tunas Melati Orphanage

Data Source	M	SD	t	p[1]
Tunas Harapan (*n* = 7; *df* = 6)				
Pretest	38.37	6.083	3.480	.013
Posttest	46.57			

Table 6.
Cont.

Tunas Melati ($n = 8$; $df = 7$)				
Pretest	39.63	9.528	3.043	.019
Posttest	49.88			

Note.
[1]Two-tailed.

Based on the results of the statistical analysis test in Table 7 shows that there is a difference in the results before and after the emotional experience writing intervention is given, namely from the average results obtained between the pretest and post-test scores in the experimental group there is an increase in mean score of 9.2. This illustrates that the implementation of the emotional experience writing intervention impacts both qualitatively and quantitatively on the two experimental groups. Adolescents who participated in the EXPRIT intervention demonstrated a marked improvement in the impact of problem-solving skills on their socio-emotional problems, $t(14) = 4.503$, $p = .000$. This suggests that EXPRIT's focus on emotional expression may effectively equip adolescents with the skills to navigate socio-emotional challenges.

Table 7.
Paired *t*-Test Result of Tunas Harapan Orphanage and Tunas Melati Orphanage

Data Source	*Mean*	*SD*	*t*	*df*	*p*[1]
Pretest	39.13	7.912	4.503	14	.000
Posttest	48.33				

Note. $N = 15$.
[1]Two-tailed

In addition to examining the average scores, the impact of the Emotional Experience Writing (EXPRIT) intervention can also be discerned by considering the *t*-value. Within the orphanage context, our analysis yielded a *t*-value of 4.503 for the youth group. It's important to note that this *t*-value significantly exceeds the critical *t*-value of 1.761. This substantial difference between the calculated *t*-value and the critical *t*-value demonstrates a statistically significant effect. Specifically, a *t*-value of this magnitude indicates that the EXPRIT intervention has a significant and positive influence on problem-solving skills within the youth groups of both orphanages,

regardless of gender. These finding emphasizes the efficacy of the intervention, illustrating that it has led to substantial improvements in problem-solving abilities among the participants in both male and female orphanage groups.

Writing or speaking on emotionally related topics influences physical immune function and results in long-term improvements in mood and psychological well-being. Pennebaker (2016) shows that, in general, writing about emotional topics can significantly reduce distress. Orphanage adolescents experience emotional turmoil, which is shown in the results of research related to the description of the psychological development and emotional maturity of children in orphanages showing inferiority behavior, passiveness, lack of confidence, insecurity, anxiety, and other behaviors so that they have difficulty in social interaction with the environment. As an individual in a period of adolescent development, one is prone to conflict both with self and with the surrounding environment. Unstable social and emotional development and low self-concept affect the ability of adolescents to overcome problems (problem-solving). The results of the study Haryanti et al. (2019) stated that overview of the emotional and mental development of teenagers in the orphanage group, a significant portion of them (70% of respondents) have shown inadequate emotional and mental development. Likewise, orphanage adolescents have negative behavior and emotional problems if they do not make an effort to overcome problems properly in terms of beliefs, how to deal with problems, and reasonable personal control.

Based on the research results on problem-solving abilities in socio-emotional problems in 15 teenagers in orphanages after being given the Emotional Experience Writing intervention, it showed an increase in average

scores measured quantitatively (through statistical analysis). The results of quantitative calculations during the pretest-posttest for male adolescents in orphanages in the aspect of Personal Control (PC) showed an increase in the score on the indicator of emotional regulation ability by 16 points while Impulse Control decreases by 1 point. In the group of adolescent girls, the pretest-posttest score on the Personal Control aspect of the emotional regulation indicator showed an increase of 5 points, while the Impulse Control indicator increased by 10 points. This shows that the ability of adolescent girls to control impulses is higher than that of boys, and girls have more regulatory abilities.

Boys in the aspect of belief and problem-solving approach style on indicators of Coping Strategies, Cognitive Adjustment, Displacement, Self-Efficacy, and Optimism have an increase in score range of 10-17 points. However, the increase in score is not too high on the indicators of Positive Attitude and Problem Analysis, which is equal to 2. This indicates that boys are still lacking to identify the causes of the problems and interpreting the problems faced as strengths in the future. Indicators that have significant score difference are Cognitive Adjustment (CA) and Optimism (OP), namely the ability to judge according to the desired understanding and have the confidence to be able to handle the problems at hand and believe in self for the future.

Meanwhile, the group of adolescent girls showed the lowest score and experienced a decrease in the post-test on the Cognitive Adjustment indicator (-3) and the Optimism indicator (0, no difference). The Positive Attitude indicator did not experience a high enough increase, only 2 points. This is inversely proportional to the ability of male adolescents, who are pretty good at the Cognitive Adjustment and Optimism indicators, which illustrate that adolescent girls have difficulties in the assessment and understanding process and are less confident in dealing with a problem.

Differences in problem-solving patterns for teenage girls and teenage boys at the orphanage are due to different underlying factors. According to Holidun (2017), the factors that influence problem-solving in individuals include experience factors, influential factors, and cognitive factors. Previous research found that expressive writing therapy can be used to reduce depression, anxiety, and stress (Danarti et al., 2018). Meanwhile, this study further develops an intervention model through Emotional Experience Writing with treatment modifications providing an instrument as one of the media that helps the intervention process.

In this research, effect size from Cohen's *d* of 1.163 suggests that the Emotional Experience Writing (EXPRIT) intervention had a substantial and positive influence on the problem-solving skills of the participants in our study. Such a robust effect size underlines the practical significance of the intervention, implying that it can be a potent tool in fostering emotional well-being and enhancing problem-solving abilities, particularly among orphanage adolescents. This finding not only bolsters the theoretical foundation of the intervention but also underscores its real-world relevance and potential for beneficial application in therapeutic and educational settings.

Despite the positive findings, the study's limitations, such as the small sample size and absence of a control group, raise concerns about generalizability and internal validity. Future research should employ larger, diverse samples and incorporate control groups to enhance the robustness of findings. The implications of the study suggest potential applications of the Emotional Experience Writing (EXPRIT) intervention in addressing emotional challenges among orphanage adolescents, with gender-specific considerations. However, further research is needed to confirm and extend these findings. Longitudinal studies, qualitative methods, and exploration of mediating variables are recommended to deepen understanding and address gaps in current research. In conclusion, while this study contributes to the literature, addressing its limitations and pursuing suggested avenues for future

research will offer a more comprehensive understanding of the intervention's impact on emotional well-being and problem-solving in this population.

CONCLUSION

Based on the results that the researcher has presented, the conclusions that can be drawn in this study indicate that there is an effect of the Emotional Experience Writing (EXPRIT) model intervention on the problem-solving skills of the youth at the Tunas Melati and Tunas Harapan orphanages which are indicated to have socio-emotional problems. The effect of the Emotional Experience Writing (EXPRIT) model intervention can be seen from the statistical analysis results as a quantitative assessment and the increase in score in each session as a qualitative assessment. Qualitative assessment (as stated in their writings) shows the dominance of cognitive adjustment indicators as a style of a problem-solving approach. Meanwhile, their problem-solving approach tends to be displacement for the group of teenage girls at the Tunas Melati Orphanage.

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REFERENCES

Bailen, N. H., Green, L. M., & Thompson, R. J. (2018). Understanding emotion in adolescents: A review of emotional frequency, intensity, instability, and clarity. *Emotion Review*, *11*(1), 63–73. https://doi.org/10.1177/1754073918768878

Bonnie, R. J., Backes, E. P., Alegria, M., Diaz, A., & Brindis, C. D. (2019). Fulfilling the promise of adolescence: Realizing opportunity for all youth. *The Journal of Adolescent Health: Official Publication of The Society for Adolescent Medicine*, *65*(4), 440–442.

https://doi.org/10.1016/j.jadohealth.2019.07.018

Danarti, N. K., Sugiarto, A., & Sunarko, S., (2018). Pengaruh expressive writing therapy terhadap penurunan depresi, cemas, dan stres pada remaja di Panti Rehabilitasi Sosial PSMP Antasena Magelang. *Jurnal Ilmu Keperawatan Jiwa*, *1*(1), 48. https://doi.org/10.32584/jikj.v1i1.27

Hartini, N., Machrus, H., Suminar, D. R., & Yoenanto, N. H. (2000). *Karakteristik kebutuhan psikologis anak panti asuhan (psychological needs characteristic of orphanage's children).* [Funded Research, Lembaga Penelitian Universitas Airlangga]. https://repository.unair.ac.id/114982/.

Haryanti, D., Pamela, E. M., & Susanti, Y. (2019). Perkembangan mental emosional remaja di panti asuhan. *Jurnal Keperawatan Jiwa*, *4*(2), 97-104.

Holidun, H. (2017). Analisis kemampuan pemecahan masalah matematis peserta didik kelompok matematika ilmu alam (MIA) dan ilmu-ilmu sosial (IIS) kelas XI MAN 1 Bandar Lampung ditinjau dari minat belajar matematika. [Unpublished undergraduate's thesis]. UIN Raden Intan Lampung.

Hurlock, E. B. (2015). *Developmental psychology: A life-span approach*. Mcgraw-Hill.

Nezu, A. M., Nezu, C. M., D'Zurilla, T. (2012). *Problem-solving therapy: A treatment manual.* Springer Publishing Company.

Orth, Z., Moosajee, F., & Van Wyk, B. (2022). Measuring mental wellness of adolescents: A systematic review of instruments. *Frontiers in Psychology*, *13*(835601). https://doi.org/10.3389/fpsyg.2022.835601

Pennebaker, J. W. (2018). Expressive writing in psychological science. *Perspectives on Psychological Science*, *13*(2), 226–229. https://doi.org/10.1177/17456916177073 15

Pennebaker J. W., & Smyth J. (2016). *Opening up by writing it down: The healing power of expressive writing* (3rd ed.). Guilford.

Putri, D. S., & Sidiq, S. (2017). *Keterbukaan diri anak dengan pengasuh (studi deskriptif kualitatif keterbukaan diri anak panti asuhan usia remaja kepada pengasuh dalam penyesuaian diri di lingkungan Panti Asuhan Putri Aisyiyah II)*. [Unpublished undergraduate's thesis]

Rahman, M. M. (2019). 21st Century skill "problem-solving": Defining the concept. *Asian Journal of Interdisciplinary Research*, *2*(1), 64-74. https://doi.org/10.34256/ajir1917

Rahman, W., Mullick, M. S. I., Pathan, M. A. S., Chowdhury, N. F., Shahidullah, M., Ahmed, H., Roy, S., Mazumder, A. H., & Rahman, F. (2012). Prevalence of behavioral and emotional disorders among the orphans and factors associated with these disorders. *Bangabandhu Sheikh Mujib Medical University Journal*, *5*(1). https://doi.org/10.3329/bsmmuj.v5i1.109 97

Shulga, T. I. & Savchenko, D. D. & Filinkova, E. B. (2016). Psychological characteristics of adolescent orphans with different experience of living in a family. *International Journal of Environmental and Science Education*, *11*(17), 10493-10504.

Sisto, A., Vicinanza, F., Campanozzi, L. L., Ricci, G., Tartaglini, D., & Tambone, V. (2019). Towards a transversal definition of psychological resilience: A literature review. *Medicina (Kaunas, Lithuania)*, *55*(11), 745. https://doi.org/10.3390/medicina5511074 5

Surzykiewicz, J., Skalski, S. B., Sołbut, A., Rutkowski, S., & Konaszewski, K. (2022). Resilience and regulation of emotions in adolescents: Serial mediation analysis through self-esteem and the perceived social support. *International Journal of Environmental Research and Public Health*, *19*(13), 8007. https://doi.org/10.3390/ijerph19138007

Travagin, G., Margola, D., & Revenson, T. A. (2015). How effective are expressive writing interventions for adolescents? A meta-analytic review. *Clinical psychology review*, *36*, 42-55.

Van Merrienboer, J. J. (2013). Perspectives on problem solving and instruction. *Computers & Education*, *64*, 153-160.