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EFFECTIVENESS OF LIFE SKILLS-BASED ADOLESCENT INTEGRATED HEALTH POST (POSYANDU) ON ADOLESCENT KNOWLEDGE AND ATTITUDES AT INGIN JAYA PUBLIC HEALTH CENTER, ACEH BESAR REGENCY

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ABSTRACT

Adolescent Integrated Health Post as an innovative adolescent health service, offers a skill-based approach focusing on the development of adolescents' life skills—a key aspect in personal growth and attitudes. This research aims to evaluate the effectiveness of Life Skills-based Adolescent integrated services post on adolescents' knowledge and attitudes. The quasi-experimental method, One-Group Pretest-Posttest Design, compared conditions before and after the intervention, involving adolescent participation in the Posyandu program facilitated by healthcare professionals. Accidental sampling identified 21 respondents, adolescents with high school education (grades X-XII). Data collection utilized pre- and post-intervention questionnaires to measure adolescents' knowledge and attitudes related to health and life skills. Paired T-Test statistical analysis was employed on a single group of subjects using two different datasets, comparing pretest and posttest results. The research findings reveal that adolescent life skill knowledge, encompassing Empathy, Critical and Creative Thinking, Mental Health, and Substance Abuse, as well as life skill attitudes related to Self-Awareness, Empathy, Physical Activity, Non-Communicable Disease (NCD) Prevention, and Violence Prevention, show non-significant results ($\alpha \geq 0.005$). Conversely, adolescent life skill knowledge covering Self-Awareness, Decision-Making, Problem-Solving, Interpersonal Relations, Effective Communication, Stress Management, Emotional Regulation, Reproductive Health, Nutrition, Physical Activity, NCD Prevention, and Violence Prevention, along with life skill attitudes regarding Critical Thinking, Creative Thinking, Decision-Making, Problem-Solving, Interpersonal Relations, Stress Management, Effective Communication, Emotional Regulation, Reproductive Health, Mental Health and Substance Abuse, and Nutrition, exhibit significant results ($\alpha \leq 0.005$). These findings support the notion that a holistic approach through Life Skills-based Adolescent Integrated Health Post focusing on the development of adolescent life skills can be an effective strategy in enhancing adolescents' knowledge and attitudes related to health life skills. However, only a small fraction of skill aspects did not yield positive impacts on adolescents. The implications of this research can contribute to the development of similar community-level programs to support comprehensive adolescent development.

INTRODUCTION

The adolescent period is a dynamic phase in individual development, marked by the acceleration of physical, mental, emotional, and social growth[1]–[3]. This period is often referred to as "storm and stress," where adolescents face challenges from biopsychosocial and environmental factors. Health issues in adolescents involve a series of complexities stemming from the interaction of various factors. In addition

to coping with significant physical and hormonal changes during puberty, adolescents are also exposed to unhealthy lifestyles, including imbalanced dietary patterns and substance abuse[4]–[6]. The rise of mental health issues, such as anxiety and depression, is increasingly linked to academic pressure and social changes[7]–[10]. Social and environmental factors, such as education level, socioeconomic status, and access to healthcare facilities, add an extra layer of complexity to the overall panorama of adolescent health[1], [11]–[13]. Currently, the national number of adolescents in 2022, based on the age group of 10-14 years, is 22,115.9, and the age group of 15-19 years is 22,200.3, with 22,176,543 individuals aged 15-19 years. The 2015 School-Based Health Survey in Indonesia provides an overview of health risk factors among students aged 12-18, such as smoking, alcohol consumption, and sexual behavior. The complexity of adolescent health issues requires a comprehensive cross-program and cross-sectoral approach. The number of adolescents in Indonesia emphasizes the need for investment in human development. The government demonstrates its commitment through the SDGs and the 2020–2024 National Medium-Term Development Plan (RPJMN) with a focus on universal health coverage and child disease prevention[14]. The Ministry of Health is developing Adolescent Care Health Services in Community Health Centers, including, as a platform for education and comprehensive health services.

In order to enhance the knowledge and attitudes of adolescents, the Life Skill-based Adolescent integrated health post can be considered as an effective strategy. By involving adolescents in activities that cultivate life skills such as communication, decision-making, and emotional management, Adolescent integrated health post can assist in developing positive knowledge and attitudes related to health and life. Puskesmas Ingin Jaya, situated in the Aceh Besar Regency, serves as a community health center responsible for the well-being of adolescents in its region. According to BPS data, the number of adolescents in Aceh Besar Regency was recorded at 73,312 individuals in 2019, with a population of 32,672 in 2022 across 50 villages in the Ingin Jaya sub-district. The target for male and female adolescents in adolescent integrated health post activities in 50 villages in Subdistrict Ingin Jaya was 1,578 individuals, and the target in 5 villages implementing Adolescent integrated health post was 314 individuals, comprising 94 male adolescents and 220 female adolescents (Data at Community Health Center Ingin Jaya 2021).[15]

In an effort to improve the well-being and quality of life of adolescents, Community Health Center Ingin Jaya has implemented the Adolescent integrated health post program based on life skill development. This program aims to provide understanding, knowledge, and skills to adolescents so that they can manage themselves, interact positively with their surroundings, and make appropriate decisions related to health and daily life. Aligned with the holistic health concept, life skills are considered a fundamental foundation in shaping healthy adolescents overall.

The development of the Adolescent integrated health post program at Community Health Center Ingin Jaya integrates aspects of life skills such as self-awareness, critical thinking ability, creativity, and skills in managing emotions. Therefore, research is needed to evaluate the effectiveness of this life skill-based Adolescent Integrated Health Post, particularly in enhancing the knowledge and attitudes of adolescents in the working area of community health center Ingin Jaya, Aceh Besar.

METHOD

This study employed a quasi-experimental approach with a One-Group Pretest-Posttest Design, enabling a comparison between conditions before and after the intervention. The research design included a pretest in the experimental group (O1), the administration of the intervention (X), and a posttest in the experimental group (O2). The study was conducted in the working area of Puskesmas Ingin Jaya from October 29 to November 24. The research population involved all adolescents in five villages, namely Lubuk Sukun Village, Pasie Lamgarot Village, Gani Village, Jurong Pejeura Village, and Lamdaya Village, who participated in the Adolescent Posyandu program in that area, totaling 314 individuals comprising 94 male adolescents and 220 female adolescents. Sample selection was done using the accidental sampling method, with inclusion criteria for adolescents attending high school grades X-XII, actively participating

in Adolescent Posyandu activities, and willing to be respondents throughout the research process. A total of 21 respondents met the inclusion criteria after screening. Data collection methods in this study included the use of a research questionnaire as a primary data instrument, while secondary data were obtained from Puskesmas records related to adolescents in the working area of Puskesmas Ingin Jaya within the Adolescent Posyandu Program. Data processing and analysis were conducted through several stages, namely editing (data checking), coding (questionnaire response coding), transferring (moving responses to a master table), and tabulating (creating frequency distribution tables and bivariate tables using the SPSS program). Univariate analysis involved the variable Healthy Living Skills (PKHS) with sub-variables such as Self-Awareness, Empathy, Critical Thinking, Creative Thinking, Decision Making, Problem Solving, Interpersonal Relations, Effective Communication, Coping with Stress, and Emotional Management, as well as Mental Health and Substance Abuse Prevention, Nutrition, Physical Activity, Non-Communicable Disease Prevention (NCD), and Adolescent Violence Prevention. Bivariate analysis was conducted to evaluate the influence of differences between independent and dependent variables. The paired T-Test, a paired sample test, was utilized on the same subject group but with two different data sets, namely pretest and posttest results. This analysis was performed using a computer and the SPSS program, with a significance level (α) set at 0.05 or a Confidence Level (CL) of 95%. Each sub-variable was tested separately, and the results were evaluated by comparing the P-value with the predetermined alpha value (0.05).

RESULT AND DISCUSSION

Univariate Analysis

Gender and Age

Table 1 Frequency Distribution of Respondent Characteristics Based on Gender and Age

Gender	Frequency (n)	Persentase %
Female	6	29
Male	15	71
Total	21	100
Age	Frequency (n)	Persentase %
15-17 Years	18	86
≥17 Years	3	14
Total	21	100

Around 71% of the total respondents are male, totaling 15 individuals out of the overall participants. Meanwhile, the majority of the respondents fall within the age range of 15 to 17 years, comprising a total of 18 students or reaching 86% of the total respondents. This indicates a male-dominated participation in this study, with most respondents falling into the category of early to mid-adolescence. Further understanding of the participation patterns based on gender and age range can provide additional insights into the research outcomes and their relevance to this specific demographic.

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Frequency Distribution of Pretest and Posttest Scores on Life Skills Knowledge of Adolescent Integrated Health Post

Table 2 Frequency Distribution of Pretest and Posttest Scores on Life Skills Knowledge of Adolescent Integrated Health Post

Skills	Pretes					Postes				
	Very Good,	Good,	Adequate	Poor	f (%)	Very Good,	Good,	Adequate	Poor	f (%)
Life Skill: Knowing Oneself	6 29	10 48	5 23	0 0	21 (100)	13 62	8 38	0 0	0 0	21 (100)
Life Skill: Empathy	1 5	11 52	6 29	3 14	21 (100)	11 52	2 10	2 10	6 29	21 (100)
Life Skill: Critical Thinking	4 19	6 28	3 14	8 38	21 (100)	8 38	4 19	6 29	3 14	21 (100)
Life Skill: Creative Thinking	6 29	5 23	3 14	7 33	21 (100)	7 33	5 23	0 0	9 43	21 (100)
Life Skill: Decision Making	10 48	0 0	0 0	11 52	21 (100)	19 90	0 0	0 0	2 10	21 (100)
Life Skill: Problem Solving	3 14	6 29	5 23	7 33	21 (100)	7 33	13 62	1 5	0 0	21 (100)
Life Skill: Interpersonal Relations	6 29	8 38	0 0	7 33	21 (100)	12 57	9 43	0 0	0 0	21 (100)
Life Skill: Effective Communication	6 29	9 43	0 0	6 28	21 (100)	13 62	7 33	0 0	1 5	21 (100)
Life Skill: Managing Stress	7 33	8 38	4 19	2 10	21 (100)	11 52	9 43	11 52	0 0	21 (100)
Life Skill: Emotional Management	12 57	2 10	0 0	7 33	21 (100)	10 48	10 48	0 0	1 5	21 (100)
Adolescent Reproductive Health	9 43	4 19	3 14	5 23	21 (100)	12 57	6 29	2 10	1 5	21 (100)
Mental Health and Substance Abuse	6 29	10 48	0 0	5 23	21 (100)	14 67	3 14	0 0	4 19	21 (100)
Nutrition	5 23	10 48	0 0	6 28	21 (100)	12 57	7 33	0 0	0 0	21 (100)
Physical Activity	4 19	12 57	0 0	5 23	21 (100)	11 52	9 43	1 5	0 0	21 (100)
Prevention of Non-Communicable Diseases (NCDs)	2 10	9 42	0 0	10 48	21 (100)	6 29	13 62	0 0	2 10	21 (100)
Prevention of Violence in Adolescents	7 33	0 0	0 0	14 67	21 (100)	17 81	0 0	0 0	4 19	21 (100)

Based on Table 2, the pre-test and post-test data for adolescent skills indicate positive changes. Before the intervention, the majority of respondents showed insufficient skills in Critical Thinking (38%), Creative Thinking (33%), Decision Making (52%), Problem Solving (33%), and Interpersonal Relations (38%). After the intervention, a significant improvement in these skills is evident, with the majority of respondents demonstrating good to very good skill levels. This includes aspects such as Critical Thinking (38% to 90%), Creative Thinking (33% to 43%), Decision Making (52% to 90%), Problem Solving (33% to 62%), and Interpersonal Relations (38% to 57%). Positive changes are also observed in other aspects, such as Effective Communication, Stress Management, Emotional Management, Adolescent Reproductive Health, Mental

Health and Substance Abuse Prevention, Nutrition, Physical Activity, Prevention of Non-Communicable Diseases (NCDs), and Prevention of Violence in Adolescents. The majority of respondents show improved skills after participating in the intervention.

Frequency Distribution of pre-test and post-test values of the attitude of Life Skill Adolescent Integrated Health Post

Table 3 Frequency Distribution of pre-test and post-test values of the attitude of Life Skill Adolescent Integrated Health Post

Skills	Pre test				Post test			
	Positive	Neutral	Negative	f %	Positive	Neutral	Positive	f %
Life Skill Self-awareness	6 29	15 71	0 0	21 100	12 57	9 42	0 0	21 100
Life Skill Empathy	10 48	11 52	0 0	21 100	14 66	7 33	0 0	21 100
Life Skill Critical Thinking	10 48	11 52	0 0	21 100	19 90	2 10	0 0	21 100
Life Skill Creative Thinking	14 67	7 33	0 0	21 100	17 80	2 10	2 10	21 100
Life Skill Decision Making	9 43	12 57	0 0	21 100	15 71	6 29	0 0	21 100
Life Skill Problem Solving	8 38	12 57	1 5	21 100	11 52	10 48	0 0	21 100
Life Skill Interpersonal Relations	0 0	7 33	14 67	21 100	15 71	6 29	0 0	21 100
Life Skill Effective Communication	6 29	13 62	2 9	21 100	16 76	5 23	0 0	21 100
Life Skill Stress Management	12 57	9 43	0 0	21 100	18 86	3 14	0 0	21 100
Life Skill Emotional Management	6 29	14 67	1 5	100 21	16 76	5 24	0 0	21 100
Adolescent Reproductive Health	9 43	10 47	2 10	100 21	14 67	7 33	0 0	21 100
Mental Health and Substance Abuse	19 90	1 5	1 5	100 21	21 100	0 0	0 0	21 100
Nutrition	7 33	14 67	0 0	100 21	19 90	2 10	0 0	21 100
Physical Activity	16 76	5 24	0 0	100 100	11 52	9 43	1 5	21 100
Non-Communicable Disease Prevention (NCD)	20 95	1 5	0 0	21 100	21 100	0 0	0 0	21 100
Prevention of Violence in Adolescents	11 52	10 48	0 0	21 100	16 76	5 24	0 0	21 100

Based on Table 3, the pre-test and post-test data for adolescent skills show significant changes in attitudes. Before the intervention, the majority of respondents exhibited neutral attitudes towards aspects

such as Self-awareness (71%), Empathy (52%), Critical Thinking (52%), and Decision Making (57%). After the intervention, there was an observable improvement in positive attitudes towards these aspects, with the majority of respondents showing good to very good attitudes. This includes aspects such as Self-awareness (neutral 71% to good 57%), Empathy (52% to good 66%), Critical Thinking (52% to positive 90%), and Decision Making (57% to positive 71%). Positive changes are also evident in other aspects, such as Creative Thinking, Problem Solving, Interpersonal Relations, Effective Communication, Stress Management, Emotional Management, Adolescent Reproductive Health, Mental Health and Substance Abuse Prevention, Nutrition, Physical Activity, Prevention of Non-Communicable Diseases (NCDs), and Prevention of Violence in Adolescents. The majority of respondents show an improvement in positive attitudes after participating in the intervention.

Bivariate Data Analysis

Analysis of the Influence of Adolescent Posyandu Based on Life Skills on Knowledge Before and After the Intervention

Table 4 Analysis of the Influence of Adolescent Posyandu Based on Life Skills on Attitudes Before and After the Intervention

Life skill knowledge	mean ± s.d	IK 95% Lower	Upper	t	p
Self-Awareness					
Before	80.14 ± 10.84	-16.656	-4.487	-3.624	.002
After	90.71 ± 9.16				
Empathy					
Before	74.52 ± 13.38	-15.537	4.299	-1.182	.251
After	80.14 ±23.94				
Critical Thinking	71.38 ± 19.75	-11.714	9.238	-.247	.808
Before	72.62 ± 22.22				
After					
Creative Thinking	73.81 ± 20.11	-9.287	11.667	.237	.815
Before	72.62 ± 22.22				
After					
Decision Making	73.81± 25.58	-35.030	-7.827	-3.286	.004
Before	95.24± 15.04				
After					
Problem Solving					
Before	70.62 ±18.09	-25.397	-9.175	-4.445	.000
After	87.90± 9.41				
Interpersonal Relationships					
Before	73.81± 20.11	-26.554	-4.398	-2.914	.009
After	89.29 ± 12.67				
Effective Communication					
Before	75.00 ±19.36	-25.986	-2.585	-2.547	.019
After	89.29± 14.94				
Coping with Stress					
Before	78.52 ± 16.23	-16.208	-2.173	-2.732	013
After	87.71± 11.08				
Emotional Management					
Before	72.62 ± 19.21	-23.028	-3.162	-2.750	.012
After	85.71 ± 14.94				
Adolescent Reproductive					
Health	74.76 ±18.87	-20.720	-5.947	-3.765	.001
Before	88.10 ± 14.00				
After					
Mental Health and Substance					
Abuse					
Before	76.19 ±18.50	-21.848	.419	-2.007	.058

After	86.90± 20.33				
Nutrition					
Before	75.00 ±19.36	-21.163	-2.646	-2.682	.014
After	86.90± 16.99				
Physical Activity					
Before	-75.00 ±19.36	-23.632	-.178	-2.118	.047
After	86.90 ± 15.04				
Prevention of Non-Communicable Diseases					
(NCDs)	65.48 ±16.72	-21.086	-7.485	-4.382	.000
Before	79.76 ± 15.04				
After					
Prevention of Adolescent Violence					
Before	66.67 ±24.15	-35.457	-12.162	-4.264	.000
After	90.48± 20.11				

Based on Table 4, there is a significant change in the knowledge of adolescent lifeskills after the intervention. For example, in the aspect of "Self-awareness," there is a meaningful improvement from the pre-treatment mean of 80.14 ± 10.84 to 90.71 ± 9.16 post-treatment, with a difference of 10.57. The t-test analysis indicates a significant difference with a p-value of 0.002 and a 95% Confidence Interval (CI) between -16.656 and -4.487.

However, in the aspect of "Empathy," the change is not significant (p = 0.251), with a confidence interval between -15.537 and 4.299. Additionally, there is no significant change in the aspects of "Critical Thinking" (p = 0.808) and "Creative Thinking" (p = 0.815). Nevertheless, significant improvements are observed in "Decision Making" (p = 0.004) and "Problem Solving" (p = 0.000), indicating a substantial increase in knowledge in these skills.

Significant changes are also noted in "Interpersonal Relations" (p = 0.000), "Effective Communication" (p = 0.019), "Stress Management" (p = 0.013), "Emotional Management" (p = 0.012), "Adolescent Reproductive Health" (p = 0.001), "Mental Health and Substance Abuse Prevention" (p = 0.058), "Nutrition" (p = 0.014), "Physical Activity" (p = 0.047), "Prevention of Non-Communicable Diseases (NCDs)" (p = 0.000), and "Prevention of Violence in Adolescents" (p = 0.000). These changes indicate a significant increase in knowledge across various aspects of adolescent lifeskills after the intervention.

Analysis of the Influence of Adolescent Posyandu Based on Life Skills on Knowledge Before and After the Intervention

Table 5 Analysis of the Influence of Adolescent Posyandu Based on Life Skills on Knowledge Before and After the Intervention

Life skill Attitude	Rerata ± s.d	IK 95% Lower	Upper	t	p
Self-Awareness					
Before	76.52 ± 10.64	-14.088	2.183	-1.526	.143
After	82.48 ± 11.72				
Empathy					
Before	74.29± 10.403	-14.916	155	-2.043	.054
After	81.67 ± 9.265				
Critical Thinking					
Before	73.67 ± 11.48	-23.046	-8.002	-4.305	.000
After	89.19 ± 10.023				
Creative Thinking					
Before	74.76 ± 12.49	-19.015	-.033	-2.093	.049
After	84.29 ± 15.35				
Decision Making					
Before	71.90±11.67	-19.605	-4.204	-3.225	.004
After	83.81± 13.59				
Problem Solving	71.43 ± 12.76	-18.470	1.327	-1.806	.086

Before	80.00 ± 16.12				
After					
Interpersonal Relationships					
Before	52.86 ± 10.55	-39.050	-21.903	-7.415	.000
After	83.33 ± 14.25				
Effective Communication					
Before	48.57 ± 12.36	-47.048	-28.190	-8.323	.000
After	86.19 ± 14.65				
Coping with Stress					
Before	76.67 ± 13.54	-20.705	-1.200	-2.343	.030
After	87.62 ± 13.00				
Emotional Management					
Before	69.52 ± 13.22	-23.396	-7.080	-3.896	.001
After	84.76 ± 10.66				
Adolescent Reproductive Health					
Before	70.48 ± 13.31	-18.974	-4.835	-3.513	.002
After	82.38 ± 8.45				
Mental Health and Substance Abuse					
Before	69.52 ± 17.74	-30.394	-10.558	-4.306	.000
After	90.00± 10.00				
Nutrition					
Before	69.52 ± 10.71	-17.873	-7.841	-5.347	.000
After	82.38 ± 7.68				
Physical Activity					
Before	70.00 ± 11.83	-16.149	1.863	-1.654	.114
After	77.14 ± 12.70				
Prevention of Non-Communicable Diseases					
(NCDs)	74.76 ± 14.35	-14.006	1.625	-1.652	114
Before	80.95 ± 11.36				
After					
Prevention of Adolescent Violence					
Before	75.71± 12.47	-11.455	1.931	-1.484	.153
After	80.48 ± 9.73				

(Data hasil uji paired t-tes sampel Dependen)

Summary of paired t-test results comparing pre-treatment and post-treatment adolescent life skill attitudes are presented in Table 5. It is evident that there are significant differences in several attitude aspects after the intervention. For instance, in the aspect of "Self-awareness," despite an increase in the mean from 76.52 ± 10.64 to 82.48 ± 11.72, this difference is not significant (p = 0.143).

However, there are significant differences in the aspects of "Critical Thinking" (p = 0.000) and "Creative Thinking" (p = 0.049), indicating a significant improvement in attitudes after the intervention. Similarly, in the aspects of "Decision Making" (p = 0.004), "Interpersonal Relationships" (p = 0.000), "Effective Communication" (p = 0.000), "Stress Management" (p = 0.030), "Emotional Management" (p = 0.001), "Adolescent Reproductive Health" (p = 0.002), "Mental Health and Substance Abuse Prevention" (p = 0.000), "Nutrition" (p = 0.000), "Non-Communicable Disease Prevention" (p = 0.000), and "Adolescent Violence Prevention" (p = 0.000).

Nevertheless, changes in the aspects of "Empathy" and "Problem Solving" do not show significant differences (p = 0.054 and p = 0.086, respectively). Thus, the results indicate an improvement in attitudes in several aspects of adolescent life skills after an intervention focused on the development of positive attitudes and life skills.

Summary of Paired t-Test Results for Pre-Test and Post-Test with Differences

Table 6 Summary of Paired t-Test Results for Pre-Test and Post-Test with Differences

knowledge		s.d	P
	Critical Thinking	10.57	.002
	Creative Thinking	5.62	.251
	Decision Making	1.24	.808
	Problem Solving	1.19	.815
	Interpersonal Relationships	21.43	.004
	Effective Communication	17.28	.000
	Coping with Stress	15.48	.009
	Emotional Management	14.29	.019
		9.19	.013
	Adolescent Reproductive Health	13.09	.012
	Mental Health and Substance Abuse	13.34	.001
	Nutrition	10.71	.058
	Physical Activity	11.9	.014
	Prevention of Non-Communicable Diseases (NCDs)	11.9	.047
	Prevention of Adolescent Violence	14.28	.000
	Critical Thinking	23.81	.000
Attitude	Self-Awareness	5.96	.143
	Empathy	7.38	.054
	Critical Thinking	15.52	.000
	Creative Thinking	9.53	.049
	Decision Making	11.91	.004
	Problem Solving	8.57	.086
	Interpersonal Relationships	30.47	.000
	Effective Communication	37.62	.000
		10.95	.030
	Coping with Stress	15.24	.001
	Emotional Management	11.9	.002
	Adolescent Reproductive Health	20.48	.000
	Mental Health and Substance Abuse	12.84	.000
	Nutrition	7.14	.114
	Physical Activity	6.19	.114
	Prevention of Non-Communicable Diseases (NCDs)	4.77	.153

The results of the analysis comparing pre- and post-intervention values across various variables indicate significant differences in several aspects. For instance, in the knowledge variable, there was a highly significant improvement in decision-making skills (21.43, $p = 0.004$), problem-solving skills (17.28, $p = 0.000$), interpersonal relationships (15.48, $p = 0.009$), and adolescent violence prevention (23.81, $p = 0.000$). This suggests that skill-based life skill interventions positively influenced adolescent knowledge in these aspects. Meanwhile, in the attitude variable, there were significant improvements in various skills, such as critical thinking (15.52, $p = 0.000$), interpersonal relationships (30.47, $p = 0.000$), effective communication (37.62, $p = 0.000$), and mental health and substance abuse prevention (20.48, $p = 0.000$). However, some variables showed non-significant differences, such as self-awareness knowledge (5.96, $p = 0.143$) and problem-solving in attitude (8.57, $p = 0.086$). Therefore, these results indicate that the intervention successfully enhanced some aspects of adolescent life skill development but did not consistently impact every measured variable.

Discussion

The analysis of the impact of Life Skills-based adolescent integrated health post shows that the intervention has a significant positive effect on increasing adolescents' knowledge in various aspects of life. The results indicate a significant improvement in knowledge regarding self-awareness, decision-making, and problem-solving skills, with p-values of 0.002, 0.004, and 0.000, respectively. Additionally, the aspect of adolescent reproductive health also shows a significant improvement with a p-value of 0.001. This indicates that the intervention successfully enhances adolescents' understanding of key aspects of life, helping them to know themselves, make informed decisions, and overcome various challenges.

Regarding attitudes, the results show a positive impact in several areas such as interpersonal relationships (p = 0.000), effective communication (p = 0.000), and mental health (p = 0.001). However, changes in attitudes towards physical activity, non-communicable disease prevention (NCD), and violence prevention in adolescents did not show significant differences, with p-values of 0.114, 0.114, and 0.153, respectively.

Although the intervention results have not consistently reached the expected level of significance in some aspects, the observed improvements in knowledge and attitudes provide a positive foundation for further development and refinement of the Adolescent Integrated Health Post program. It is essential to consider contextual factors that may influence the outcomes, such as differences in respondents' social backgrounds and education. Further evaluation and program adjustments can be made to enhance overall effectiveness, ensuring that all aspects of adolescent life are encompassed in the intervention.

This research aligns with a study conducted by Anggraeni and Sutarno in 2023 [16], which investigated the effectiveness of Adolescent Posyandu in improving adolescent reproductive health knowledge in Posrem Genius, Sindangman Village, Serang Regency, Banten Province. The Life Skills-based adolescent integrated health post proved effective in enhancing adolescent reproductive health knowledge. Another study by Tambunan, conducted in an unspecified year, evaluated the effectiveness of PKPR (Health and Adolescent Development Education) using the "Aku Remaja Sehat" book on the knowledge and skills related to adolescent health among adolescent health cadres in the Cipayung Public Health Center area, East Jakarta[17]. The research showed a significant improvement in adolescent knowledge and skills after participating in the PKPR education program. Furthermore, an unspecified researcher's study assessed the effectiveness of a life skills training program in bridal makeup for out-of-school adolescents in training institutions (LKP) in Cimahi City, West Java Province[18]. The research revealed that the life skills training program could enhance the life skills of out-of-school adolescents in bridal makeup. In this research, there are encouraging findings in the category of adolescent attitudes related to health and life skills. Positive attitude changes are observed in critical thinking, creative thinking, decision-making, problem-solving, interpersonal relationships, effective communication, stress management, adolescent reproductive health, mental health, substance abuse control, and nutritional understanding. This emphasizes that participation in Adolescent Integrated Health Post has a significant positive impact on how adolescents perceive and respond to crucial aspects of life.

However, non-significant findings in some aspects highlight that a small fraction of life skills has not yet had a positive impact on adolescents. Specifically, aspects such as adolescents' knowledge of empathy, critical thinking, and creative thinking, as well as adolescent attitudes regarding self-awareness, empathy, physical activity, non-communicable disease (NCD) prevention, and violence prevention. Although not reaching the expected level of significance, this research provides a foundation for further improvement in the development of the Adolescent Integrated Health Post program.

In the context of the discussion, it is important to note that research results may be influenced by contextual factors such as the social background and education of respondents. Therefore, further evaluation and program adjustments are necessary to ensure overall sustainability and effectiveness. These findings align with previous research, consistent with studies conducted by Anggraeni and Sutarno, as well as research by Tambunan.

As an implication, it is recommended to expand the coverage of adolescent Integrated Health Post activities to all villages with the support of village policies focused on health. Through further community outreach, the self-reliance of the community can be enhanced in efforts to improve adolescent health comprehensively. Thus, this research makes a significant contribution to understanding the effectiveness of adolescent integrated health Post based on life skills in supporting the overall development of adolescent health.

CONCLUSION

Analysis of the impact of Adolescent integrated health post based on life skills indicates that the intervention is effective in enhancing adolescents' knowledge of self-awareness, decision-making, and problem-solving. Regarding attitudes, the intervention tends to have a positive impact, particularly on aspects of interpersonal relationships and some others, although it is not significant in certain areas such as physical activity and non-communicable disease prevention. In-depth evaluation is required to understand the factors influencing differences in outcomes and to enhance the effectiveness of the intervention in specific aspects that have not achieved significant changes.

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