

# Effect of a purpose in life program on the wellness of Southern Thai adolescents

A program on the wellness of Thai adolescents

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## Abstract

**Purpose** – The study aimed to examine the effect of a purpose in life (PIL) program on the wellness of Thai adolescents.

**Design/methodology/approach** – Two schools located in municipalities in southern Thailand were selected by simple random sampling. Students from each school were randomly allocated to either an experimental group ( $n = 35$ ) or a control group ( $n = 32$ ). The experimental group received the PIL program for 16 weeks. The control group received the routine education program. Participants' wellness was measured using the Wellness Scale (WS). The WS was validated for content validity by five Thai experts and tested for reliability with 30 junior high school students, yielding the Cronbach's alpha coefficient of 0.84. The differences in the mean score of wellness across time were analyzed using repeated measures ANOVA.

**Findings** – The mean scores of wellness of the experimental group and the control group were statistically significantly different across time ( $p < 0.001$ ). Post hoc tests in the experimental group showed a statistically significant difference in the mean scores of wellness between Week 1 and Week 16, Week 1 and Week 20 and Week 16 and Week 20 ( $p < 0.05$ ). In the control group, the results showed a statistically significant difference in the mean scores of wellness between Week 1 and Week 20 and Week 16 and Week 20 ( $p < 0.05$ ).

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**Originality/value** – The PIL program, originally developed within a Thai context and focused on the spiritual dimension, was effective in enhancing the wellness of Thai adolescents.

**Keywords** Gratitude, Purpose in life, Spirituality, Wellness, Thai adolescents

**Paper type** Research paper

## Introduction

Adolescence is one of the most challenging periods of life. It is a phase for becoming independent, developing new relationships, social skills, reasoning skills and logical and moral thinking that will last for the duration of a person's life [1]. Although most adolescents are physically healthy, they still experience premature death, illness and injury [1]. Each year, in developing regions, 10 million girls aged 15–19 years become pregnant as estimated [2]. Mental health disorders account for approximately 16% of the global burden of disease in adolescents, and suicide is among the leading causes of death [3]. Health problems among Thai adolescents are in keeping with these global figures. Teenage pregnancy [4] and risk-taking behaviors are the main concerns [5]. Although adolescence can be a time of turbulence and struggle, it is also an opportunity to protect future health by implementing a positive developmental program that promotes holistic health and wellness.

Purposefulness is a significant and meaningful achievement in human development that guides adolescents to positive life paths [6, 7]. A growing body of knowledge considers purpose in life (PIL) a significant aspect of positive youth development and is associated with holistic health and wellbeing [6, 8]. Developing a sense of purpose is considered to be a life asset, and a foundation of human drive, vigor, resilience, goal clarity and ability to persevere [6, 9]. It also strengthens motivation and psychological and spiritual wellbeing [6, 10–14].

Although enhancing PIL has been recognized as a potential way to promote health and wellbeing, practical models are inadequate for promoting the wellness of an average Thai adolescent and a lack of evidence demonstrating its effectiveness. Therefore, a PIL program was developed based on Damon *et al.* [15] and using a review of the literature on wellness promotion in both the international and Thai contexts.

Liang *et al.* [16] identified four influences guiding the development of a positive PIL in adolescents, called the “Four P’s”: (1) people, (2) passion, (3) propensity and (4) prosocial benefit. These ‘P’s’ inspire adolescents to pursue a purpose, conveying concrete benefits for themselves and others. This is consistent with the context of Thai culture. Previous studies illustrated that feeling connectedness influences the development of a positive PIL among Thai adolescents. A positive purpose was established when adolescents were connected to the self and others, as reflected in the “four gratitudes”, namely: gratitude to oneself, gratitude to parents and significant others, gratitude to friends and others and gratitude to the wider world. These four gratitudes can motivate Thai adolescents to enhance their PIL and achieve holistic health and wellness [10–13]. Therefore, the PIL program to promote the wellness of Thai adolescents encompassed two processes. The first process focused on promoting a PIL, through cultivating the four gratitudes. The second process focused on promoting wellness through the existing state of knowledge including searching for a specific PIL, designing the life paths and practicing the life paths that were designed with self-discipline and honesty.

To determine whether the PIL program was effective, this study aimed to examine its effect on improving the wellness of Thai adolescents. To the best of our knowledge, this is the first quasi-experimental study that evaluated the outcome of a PIL program aimed at promoting the wellness of Thai adolescents.

## Methodology

This quasi-experimental, two-group, pre-test and post-test design was aimed at examining the effectiveness of the PIL program on the wellness of Thai adolescents. The experimental group received the PIL program for a period of 16 weeks using individual and group

activities, whereas the control group received the routine education program. The research design for this study involved measuring participants' wellness levels at Week 1 as baseline pre-test, Week 16 as post-test and Week 20 as a follow-up to the post-test.

### *Setting*

Two southern Thai schools were selected by simple random sampling and were comparable as both were located in city municipalities and were supported and operated by the local government. The majority of the students selected were of average academic standing. These groups of students represent Thai students in urban areas nationwide. Most students came from the middle socioeconomic status or lower. Some of them lived in poverty, had a lack of social opportunities and experienced academic difficulties. In these situations, Thai adolescents need guidance to maintain their wellness. The PIL program was designed to promote wellness specifically for these groups of adolescents.

### *Participants*

The total participants were 67 persons. The estimation of sample size was based on power analysis by using an effect size from a previous study [17], on applying logotherapy to enhance the wellness of young delinquents with drug abuse. The effect size from the previous study was 1.67, which was too large. Therefore, the researchers used an effect size of 0.80, which was the nearest value to the calculated one and was acceptable for the large value of effect size. To achieve  $\alpha = 0.05$ , power = 0.80 and effect size = 0.8, at least 25 students were required per group (experimental group and control group) [18]. Furthermore, 20% of the sample size was added for each group to remedy anticipated attrition. Participants from each school were randomly allocated to either an experimental group ( $n = 35$ ) or a control group ( $n = 32$ ), Figure 1.

Participants were selected according to six inclusion criteria: (1) 8th-grade students in the public schools, (2) able to attend for the duration of the study, (3) having no health problems that needed continuous medical care, (4) not participating in other health promotion programs involving changes in holistic health behaviors, (5) willing and able to participate in the study, having received permission from their guardians and (6) able to communicate well in the Thai language.

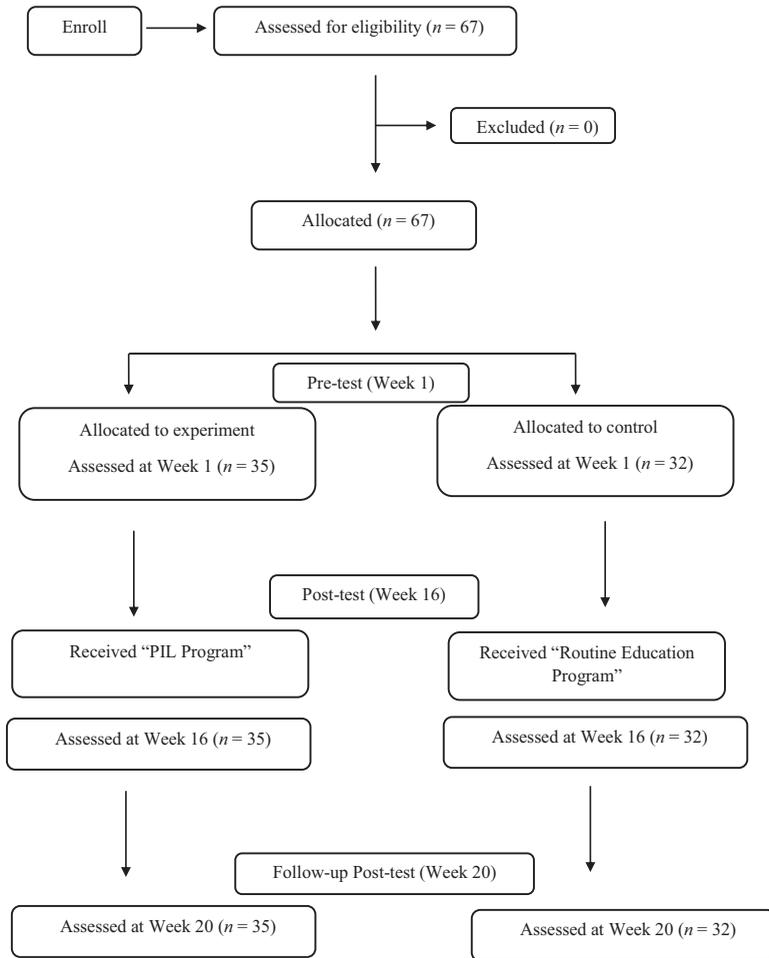
### *Instruments*

There were two parts to this study: (1) data collection and (2) experiment. Both parts were checked for content validity by five Thai experts.

*Part I: data collection instruments.* Two instruments were used to collect the data. First, a demographics questionnaire was developed by the researchers, comprising 10 items such as sex, religion and money received per day. Second, the Wellness Scale (WS), which is a measure of the perceptions of wellness, was modified from Suwanphahu [17] and was tested for reliability with 30 junior high school students who met the same inclusion criteria as the actual study participants, using Cronbach's alpha coefficient which yielded the value of 0.84. The WS comprised 39 items, 16 positive and 23 negatives, with six subscales (physical, spiritual, psychological, social, emotional and intellectual wellness).

*Part II: experiment instrument.* The experiment instrument was the PIL program to promote the wellness of Thai adolescents. It combined two main processes encompassing six steps: building trust and rapport; finding connectedness and showing gratitude; learning and practicing sufficiency economy philosophy (SEP); searching for PIL and designing life paths; making and keeping promises; and discovering a positive PIL and finding the ways to achieve it. The duration of the program was 16 weeks.

The first process (steps 1-3) was mainly focused on promoting a PIL through the four gritudes. It was conducted for six weeks. Alongside the process of nurturing PIL through the four gritudes, participants were learning and practicing SEP, which complements and



**Figure 1.**  
Flow-chart of the study

strengthens their own holistic health promotion behavior and wellness [10]. The activities were focused on cultivating and nurturing the sense of gratitude thought encouraging the participant in doing good things for themselves and others, which, by stimulating a sense of pride would cultivate improved behaviors and moral virtue and altruistic endeavors [9, 12].

The second process (steps 4–6) mainly focused on promoting wellness. It was conducted for ten weeks. The general content and activities of the program followed the existing state of knowledge in the area. The participants were encouraged to search for a specific PIL, to design their life paths based on the holistic health promotion activities and to practice their life paths that were designed with self-discipline and honesty. In addition, the schedules for adolescents to discuss what they wished to achieve in life (their expectations) using questions such as, “What will you do when you grow up?” were set up [7, 11, 12].

The program commenced the session with four main techniques in order to nurture mindfulness and calmness, including (1) relaxation and meditation; (2) esthetic expression through art and creativity; (3) creating an environment of warmth, trust and respect; and (4) self-reflection.

The PIL program was designed to have individual and group activities with several implementation methods. Examples of individual activity were promoting gratitude to oneself by encouraging participants to realize their self-value through drawing pictures. An example of a group activity was called “Together we can make our dream come true”. In this group activity, the participants designed the activities to achieve their purpose, then they shared their activities with the group and the group members helped them discover new ideas to achieve their purposes.

### *Data collection*

All participants in the experimental and control groups received detailed information and a description of the study. After that, the researchers approached the eligible students who met the inclusion criteria. The study and data collection procedures were explained to them. Those consenting to participate in the study and their guardians were asked to sign an informed and written consent form agreeing to take part in the study. Only then were the demographic data and the wellness assessment tests using the WS conducted and assessed by the research assistants at Week 1 as baseline pre-test.

Regarding the experimental group, they received the PIL program for a period of 16 weeks using individual and group activities. For the group activities, the participants were divided into four sub-groups of 8-9 members. The average time spent on each activity was 1-2 hours/week. Most activities in the program were conducted at the school; however, there were some activities that participants carried out at home, in the community, or other places, such as a football stadium, that were related to the selective activities of each participant. The wellness assessment test, using the WS, was reassessed at Week 16 as post-test and Week 20 as the follow-up to the post-test.

Regarding the control group, they received the routine education program provided by their school. Then, the wellness assessment test, using the WS, was reassessed by the research assistants at Week 16 as post-test and Week 20 as a follow-up to the post-test.

### *Data analysis*

Data were analyzed using SPSS for Windows. The value of  $p < 0.05$  was regarded as significant. Descriptive statistics were used to analyze the demographic data. The independent *t*-test was used to examine the difference in the mean score of wellness between the experimental and the control group at the three-time points of Week 1, 16 and 20. The repeated measures ANOVA was used to test the differences of the mean scores of wellness across three-time measures (Weeks 1, 16 and 20) within the experimental and the control groups. Before analyzing the data, the assumption of normality was examined by the values of skewness and kurtosis divided by their standard errors, which ascertained normality. Mauchly's test of sphericity was examined and revealed that the assumption of sphericity was met.

### *Ethical considerations*

The study was approved by the ethics review committee for research on human subjects at the Center for Social and Behavioral Sciences Institutional Review Board, Prince of Songkla University (Ref no: PSU IRB 2018-NL 012).

## **Results**

### *Demographic characteristics*

In the experimental group, there were almost twice as many female participants (65.7%) as male participants (34.3%), while the control group had more males (53.1%) than females (40.6%). The participants were aged between 13–14 years. Most of the participants in both groups were Buddhist, were engaged in voluntary activities, had a support system (such as

family, relatives or teachers), did not drink alcohol, were living with their parents and had a good relationship with their family members, [Table 1](#).

The significant differences noted between the two groups were money received per day and drinking alcohol. Money received per day and drinking alcohol, were significantly higher among those in the control group compared with the experimental group.

*The effect of the PIL program on the wellness of adolescents*

The mean score of wellness between the experimental group and the control group at baseline (week 1) before receiving the program showed no significant difference ( $t = -1.56, p > 0.05$ ). At the post-test after receiving the program (week 16), the mean score of wellness showed a significant difference between the experimental group and the control group ( $t = 4.82$ ,

Variables	Experimental group (n = 35)		Control group (n = 32)		$\chi^2/t$
	n	%	n	%	
<i>Gender</i>					
Male	12	34.30	17	53.10	0.92 <sup>b</sup>
Female	23	65.70	13	40.60	
Other	–	–	2	6.20	
<i>Religion</i>					
Buddhist	31	89.60	27	84.40	0.50 <sup>b</sup>
Muslim	4	11.40	5	15.60	
<i>Money received per day (Baht)</i>					
	Min = 25 Max = 100 M = 72(SD = 1.06)		Min = 50 Max = 150 M = 90(SD = 0.94)		3.17 <sup>a**</sup>
<i>Money expenses per day (Baht)</i>					
	Min = 20 Max = 100 M = 45(SD = 0.74)		Min = 5 Max = 90 M = 50(SD = 0.82)		1.04 <sup>a</sup>
<i>Engaged in volunteering activities</i>					
yes	28	80.00	28	87.50	–0.82 <sup>b</sup>
no	7	20.00	4	12.50	
<i>Having support system</i>					
Yes	25	71.40	26	81.20	–0.93 <sup>b</sup>
no	10	28.60	6	18.80	
<i>Drinking (alcohol)</i>					
yes	2	5.70	11	34.40	–3.05 <sup>b**</sup>
no	33	94.30	21	65.60	
<i>Living with</i>					
Parents	22	62.90	23	71.90	0.03 <sup>b</sup>
Single parent	9	25.70	4	12.50	
Cousin	4	11.40	5	15.60	
<i>Family income/month</i>					
	Min = 9,000 Max = 60,000 M = 25,151.52 (SD = 0.67)		Min = 6,000 Max = 60,000 M = 27,016 (SD = 0.95)		0.45 <sup>a</sup>
<i>Family relationship</i>					
Good	34	97.10	28	87.50	1.46 <sup>b</sup>
not really good	1	2.90	4	12.50	

**Table 1.** Comparison of participants' demographic characteristics at baseline between groups (n = 67)

**Note(s):** \* $p < 0.05$ , \*\* $p < 0.01$ ; <sup>a</sup>Independent *t*-test, <sup>b</sup>Pearson Chi Square

$p < 0.01$ ). At the follow-up post-test (week 20), the mean score of wellness showed a significant difference between the experimental group and the control group ( $t = 8.68, p < 0.01$ ), Table 2.

The repeated measures ANOVA was performed to examine the changes of the mean scores of wellness over time in Week 1, 16 and 20 within the experimental and the control groups. The results revealed that the mean scores of wellness of the experimental group showed a statistically significant difference across time ( $F_{(2,68)} = 25.79, p < 0.001$ ). The mean scores of wellness of the control group were also statistically significantly difference across time ( $F_{(2,62)} = 10.87, p < 0.001$ ), Table 3.

Post hoc tests were conducted to check where the differences occurred between groups. In the experimental group, the results showed a statistically significant difference of the mean scores of wellness between baseline (Week 1) and post-test (Week 16), between baseline (Week 1) and follow-up post-test (Week 20) and between post-test (Week 16) and follow-up post-test (Week 20) ( $p < 0.05$ ). In the control group, the results showed a statistically significant difference of the mean scores of wellness between baseline (Week 1) and follow-up post-test (Week 20) and between post-test (Week 16) and follow-up post-test (Week 20) ( $p < 0.05$ ), Table 4.

## Discussion

The PIL program described here contributes to the theory and practice of purpose building and spiritual development in the field of positive youth development [6, 9]. It also contributes to the WHO initiative project aimed at improving the way countries tackle adolescent

Wellness	Experimental group ( $n = 35$ )		Control group ( $n = 32$ )		$t$
	$M$	Sd	$M$	Sd	
Pre-test (Week 1)	2.88	0.33	3.00	0.33	-1.56
Post-test (Week 16)	3.32	0.36	2.91	0.34	4.82**
Follow-up post-test (Week 20)	3.17	0.24	2.61	0.29	8.68**

**Table 2.** Comparison of wellness between the experimental and control groups at pre-test, post-test and follow-up post-test

Within-group	Sum of squares	df	Mean square	$F$
Experimental group ( $n = 35$ )	3.56	2	1.78	25.79**
Error	4.69	68	0.07	
Control group ( $n = 32$ )	2.67	2	1.34	10.87**
Error	7.61	62	0.12	

**Table 3.** Comparison of the mean scores of wellness at Week 1, Week 16 and Week 20 using repeated measures ANOVA

Comparisons	Mean difference	
	Experimental group	Control group
Week 1 and Week 16	-0.44**	0.10
Week 1 and Week 20	-0.30**	0.39**
Week 16 and Week 20	0.15**	0.30**

**Table 4.** Post hoc pairwise comparisons of the mean differences of wellness

Note(s): \*\* $p < 0.001$

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health [1]. In Thailand, to the best of our knowledge, no structured program aimed at promoting PIL and wellness has been put into action. The findings revealed that the PIL program was effective in enhancing wellness.

The results of within-group comparison across time revealed a significant improvement in the mean scores of wellness for the experimental group ( $F_{(2,68)} = 25.79, p < 0.001$ ). The analysis signified differences between baseline (Week 1) and post-test (Week 16), between baseline (Week 1) and follow-up post-test (Week 20) and between post-test (Week 16) and follow-up post-test (Week 20) ( $p < 0.05$ ), showing that the PIL program had a positive effect on wellness at both Weeks 16 and 20. Comparing the two groups across time using independent *t*-test showed no significant difference in mean scores of wellness at baseline ( $t = -1.56, p > 0.05$ ), but significant differences at Week 16 ( $t = 4.82, p < 0.01$ ) and Week 20 ( $t = 8.68, p < 0.01$ ), indicating effects of the PIL program. Some possible reasons for the improvement of wellness are as follows:

First, the PIL program places high importance on nurturing a sense of gratitude, a key attribute of spirituality that is associated with wellbeing [19] and can be seen as the “essence” of human existence [20]. Once the sense of gratitude was cultivated in participants through “the four gratitudes”, they developed their own PIL to lead them to make a better life and do the best to obtain health and wellbeing. This is supported by previous studies which found that gratitude plays an important role in nurturing holistic health and wellbeing [19, 21]. Gaining a sense of altruism, connectedness and gratitude nurtures a sense of purpose that leads adolescents to have higher levels of life satisfaction, greater success and wellbeing in their lives, increased prosocial behavior, greater moral commitment and higher self-esteem [11, 12, 19, 21].

Second, the participants were encouraged to think about and explore their PIL and to discuss and reflect on what they wished to achieve in life [7, 11, 12]. They reviewed their purpose by asking what matters to them and what they would like to accomplish in life. They had direct experience of setting up specific activities to pursue the purpose, promoting their own health and wellness, thus building confidence in their ability to achieve their life purpose and the embedded practices needed to obtain their wellbeing [7]. Participants were learning the SEP during the program, guiding them to live life in the middle path, which would lead to happiness [12]. This process is consistent with the merit of PIL as associated with flourishing adolescence [7, 15].

Third, the participants had the opportunity to practice holistic care activities required to reach their life purpose and to develop holistic health promotion skills tailored to their ambitions. While practicing their holistic activities, they received inspiration by using selected media such as music or stories and being exposed to good role models. Furthermore, they developed self-discipline and honesty, which is extremely important in their life [10–12]. This program promoted a deeper sense of what it means to be a good citizen and helped cultivate better behavioral lifestyles that manifest in higher moral virtues such as honesty and the keeping of promises to others. Participants were encouraged to practice the activities that would develop a sense of service to others and the world beyond the self and foster a sense of pride [7]. By participating in this program, the participants gained a greater sense of right and wrong and learned specific social skills.

Fourth, four main techniques were used to nurture mindfulness and calmness: (1) relaxation and meditation for its effectiveness in promoting mental and spiritual health; (2) esthetic expression through art and creativity; (3) creating an environment of warmth, trust and respect; and (4) self-reflection [7, 10–12].

At the beginning of the study, the researchers found significant mean score differences between the two groups in terms of money received per day and drinking alcohol. Regardless of the amount of money received per day, both groups perceived that their allowance was enough. In addition, both groups had an equal opportunity to consume alcohol for special

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occasions, but none were regular drinkers. Furthermore, the alcohol they consumed was 4–6% juicetails. Therefore, occasional alcohol drinking and a low degree of alcohol intake may not be associated with their PIL and wellness.

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## Conclusion

The PIL program was effective in enhancing the wellness of Thai adolescents. Therefore, the PIL program can be incorporated into routine practices. However, nurturing a PIL and wellness should be a continuing process. All stakeholders such as school nurses, teachers and other health professionals should support adolescents to obtain wellness in life by nurturing their PIL.

## *Limitations of this study*

The PIL program was developed in the Thai context, and the students selected were of average academic standing. Therefore, this PIL program may need to be modified to be utilized in other contexts or for other groups of adolescents. In addition, the duration of the research activity, which was carried out in 20 weeks, might not be enough time to evaluate the long-term wellness of adolescents. Future research needs to test the PIL program with other adolescents in the long term.

## References

1. World Health Organization [WHO]. Coming of age: adolescent health. [cited 2020 Aug 25]. Available from: <https://www.who.int/news-room/spotlight/coming-of-age-adolescent-health>.
2. World Health Organization [WHO]. Adolescent pregnancy: key facts. [updated 2020 Jan 31; cited 2020 Mar 25]. Available from: <http://www.who.int/en/news-room/fact-sheets/detail/adolescent-pregnancy>.
3. World Health Organization [WHO]. Adolescent mental health. [updated 2019 Oct 23; cited 2020 Mar 25]. Available from: <http://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health>.
4. United Nations Children's Fund [UNICEF]. Situation analysis of adolescent pregnancy in Thailand: synthesis report 2015. [cited 2020 Sep 1]. Available from: [https://www.unicef.org/thailand/sites/unicef.org.thailand/files/2018-08/160614\\_SAAP\\_in\\_Thailand\\_report\\_EN.pdf](https://www.unicef.org/thailand/sites/unicef.org.thailand/files/2018-08/160614_SAAP_in_Thailand_report_EN.pdf).
5. Ruangkananasetr S, Plitponkarnpim A, Hetrakul P, Kongsakon R. Youth risk behavior survey: Bangkok, Thailand. *J Adolesc Health*. 2005; 36(3): 227-35. doi: [10.1016/j.jadohealth.2004.01.013](https://doi.org/10.1016/j.jadohealth.2004.01.013).
6. Burrow AL, Hill PL. Purpose as a form of identity capital for positive youth adjustment. *Dev Psychol*. 2011; 47(4): 1196-206. doi: [10.1037/a0023818](https://doi.org/10.1037/a0023818).
7. Damon W. How can we encourage a sense of purpose and meaning early in life?, William, D. (Ed.). updated 2014 Dec 9; cited 2020 Jan 18]. Available from: <https://ed.stanford.edu/in-the-media/how-can-we-encourage-sense-purpose-and-meaning-early-life-op-ed-william-damon>.
8. Cotton Bronk K, Hill PL, Lapsley DK, Talib TL, Finch H. Purpose, hope, and life satisfaction in three age groups. *J Posit Psychol*. 2009; 4(6): 500-10. doi: [10.1080/17439760903271439](https://doi.org/10.1080/17439760903271439).
9. Sharma G, De Alba E. Sense of purpose among female students belonging to minority ethnic and Buddhist backgrounds. *J Coll Character*. 2018; 19(2): 137-51. doi: [10.1080/2194587X.2018.1445644](https://doi.org/10.1080/2194587X.2018.1445644).
10. Balthip K, McSherry W, Petchruschatachart U, Piriyaakontorn S, Liamputtong P. Enhancing life purpose amongst Thai adolescents. *J Moral Educ*. 2017; 46(3): 295-307. doi: [10.1080/03057240.2017.1347089](https://doi.org/10.1080/03057240.2017.1347089).
11. Balthip K, Petchruschatachart U, Piriyaakontorn S, Chandrema S, Nilmanat K. Application of the purpose in life model for enhancing holistic health promotion of Thai adolescents living with HIV. *Songklanagarind J Nurs*. 2018; 38(4): 49-67.

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12. Balthip K, Petchruschatachart U, Piriyaakootorn S, Tiraphat N, Liamputtong P. Application of purpose in life and self-sufficient economic philosophy in enhancing the holistic health promotion of Thai adolescents. *Songklanagarind J Nurs.* 2016; 36(3): 111-30.
  13. Balthip Q, Purnell MJ. Pursuing meaning and purpose in life among Thai adolescents living with HIV: a grounded theory study. *J Assoc Nurses AIDS Care.* 2014; 25(4): e27-38. doi: [10.1016/j.jana.2014.03.004](https://doi.org/10.1016/j.jana.2014.03.004).
  14. Balthip K, Petchruschatachart U, Piriyaakootorn S, Liamputtong P. Purpose in life among Thai junior high school adolescents. *Songklanagarind J Nurs.* 2017; 37(Suppl.): 89-97.
  15. Damon W, Menon J, Bronk KC. The development of purpose during adolescence. *Appl Dev Sci.* 2003; 7(3): 119-28.
  16. Liang B, White A, DeSilva Mousseau AM, Hasse A, Knight L, Berado D, *et al.* The four P's of purpose among College Bound students: people, propensity, passion, prosocial benefits. *J Posit Psychol.* 2017; 12(3): 281-94. doi: [10.1080/17439760.2016.1225118](https://doi.org/10.1080/17439760.2016.1225118).
  17. Suwanphahu B. The effect of logotherapy group on change in wellness of substance abuse young delinquents with different levels in self-control. Bangkok: Chulalongkorn University; 2014.
  18. Cohen J. *Statistical power analysis for the behavioral sciences.* 2nd ed. Hillsdale, New Jersey, NJ: Lawrence Erlbaum Associated; 1988.
  19. Sansone RA, Sansone LA. Gratitude and well being: the benefits of appreciation. *Psychiatry (Edgmont).* 2010; 7(11): 18-22.
  20. Sessanna L, Finnell D, Jezewski MA. Spirituality in nursing and health-related literature: a concept analysis. *J Holist Nurs.* 2007; 25(4): 252-62; discussion 63-4. doi: [10.1177/0898010107303890](https://doi.org/10.1177/0898010107303890).
  21. Emmons RA. Queen of the virtues? Gratitude as a human strength. [cited 2020 Sep 3]. Available from: <https://journals.sfu.ca/rpfs/index.php/rpfs/article/viewFile/59/58>.

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