Psychosocial indicators related to adolescent mothers' quality of life in Thailand

Thawatchai Sripornngam[1], Wongchayapote Promsila[2*]

[1] Lecturer, College of Innovation and Management, Songkhla Rajabhat University.
[2] Lecturer, Faculty of Nursing, Uttaradit Rajabhat University.

*Corresponding author:
Email: promsila.w@gmail.com

Abstract

This research is comparative research based on the interactionism model and theories in psychology both domestically and internationally. The aim is to discover what factors are related to the quality of life of adolescent mothers. The sample consisted of 620 adolescent mothers aged 15-19 year old which is considered a vulnerable group according to statistics from Thailand. Multiple linear regression was deployed to analyze the quality-of-life score of adolescent mothers using psychological traits, situational factors, psychological states, self-independence behavior, and life satisfaction as predictors. It was able to predict 78.7% of the overall group. The most important predictors in descending order were social comparison, life satisfaction, attitude towards self-independence behavior, and core self-evaluation which have beta values of .29, .26, .17, and .13 respectively. That means adolescent mothers with a higher level of social comparison, life satisfaction, attitude towards self-independence behavior, or core self-evaluation tend to have a good quality of life. The results of this research can be a practical contribution to relevant authorities to improve adolescent mothers' quality of life. This research also contributes to the future study of self-independence behavior, life satisfaction, and quality of life of adolescent mothers.

Introduction

The pregnancy situation among teenagers is an unremitting problem in society and the trend has been steadily increasing. From 2012 onwards, the statistic of teen birth in Thailand was 120,000 per year. That means there are more than two million adolescent mothers in the past ten years. In 2013 the birth rate of adolescent mothers in Thailand accounted for 1.88% of the Thai birth rate per year and more than 15,000 adolescent mothers re-pregnancy. The abortion rate in adolescent mothers, in addition, was up to 45,000 people per year. Unsafe sexual intercourse can lead to various health problems, such as AIDS and sexually transmitted diseases. Currently, there are 1.2 million people infected with AIDS, and more than half of them are unaware of the infection, including 65% of teenagers who do not know how to use birth control and how to prevent sexually transmitted diseases. Then, unwanted pregnancy and abortion have become critical problems for Thai adolescents. (Thai Health Promotion Foundation, 2014). Pregnancy at a young or studying age is a crucial problem in Thailand and other countries around the world. Now, the report of Bureau of

Reproductive Health, Department of Health, Ministry of Public Health (2016) found that a number of adolescent mothers aged between 15 to 19 year old, of which the youngest age is only 8 years old. The major following problem of adolescent mothers is the depressing well-being of both mothers and children. It is affected by the risk of many obstetric complications such as anemia, high blood pressure during pregnancy, abnormally long labor pain, and preterm labor (Ricci, 2017; Ntshayintshayi, Sehularo, Mokgaola, & Sepeng, (2022); World Health Organization, 2022). Furthermore, there are plenty of problems that follow. For example, children born to unprepared mothers have a chance of not being educated or receiving lesser social opportunities than the standard. They also have a risk of getting abandoned and becoming a burden to society. Nevertheless, unready pregnancies among youth or studying age together with the decrease in childbirth among the middle-class lead to the population, health system, and economic problems. Relevant organizations need to emphasize this issue no less than other problems in this country (Senate Public Health Committee, 2011; Dhruvi Chauhan, 2021). Adolescent pregnancy is considered an important social issue; thus, the government of Thailand promulgated the Act for Prevention and S olution of the Adolescent Pregnancy Problem, (Bureau of Reproductive Health, Department of Health, Ministry of Public Health, 2016) with to protect the reproductive health rights of juveniles including the right to self-determination and the right to information, news, and knowledge, as well as, the equal right to reproductive health services that protected confidentiality and privacy (Bureau of Reproductive Health, Department of Health, Ministry of Public Health, 2019).

Self-independence, life satisfaction, and good quality of life are the main objectives of the country's development for all citizens. However, to have a good quality of life is to have self-independence and life satisfaction, and to not be a burden to others and society. Especially a group of underage teen mothers, who are still at the age of learning even though they have made mistakes. Therefore, if teen mothers live without self-independence, life satisfaction, and poor quality of life, they may conduct undesirable behaviors that can cause various problems such as lack of conscious motherhood, inappropriate sexual behavior, bad role-model behavior, selfish behavior regardless of benefits of others, aggressive behavior, lack of morality and ethics, etc. The importance mentioned above is the starting point of this paper. This paper contributes to research on the development and assessment of psychosocial indicators of adolescent mothers' self-independence behavior, life satisfaction, and quality of life. It aims to discover causal factors of adolescent mothers' welfare by studying the internal factors related to important psychological traits and external factors related to surrounding people and situations that facilitate and/or hinder the quality of life of adolescent mothers. Nonetheless, studies on the quality of life adolescent mothers in Thailand are mostly survey research. It is found that there are a few quantitative research whereof systematically investigate the causes of quality of life among teen mothers. As a result, policies and guidelines for solving problems or improving the welfare of adolescent mothers, whether they were formulated by the government sector or relevant sectors, are inconsistent with the real cause of the problem. Therefore, this research will be a guideline for all relevant sectors or agencies to recognize the problems and work together to improve the welfare of adolescent mothers which will enhance their quality of life in the long run.

Objectives

The objective is to find significant predictors and degrees that predict adolescent mothers' quality of life by using psychological traits, situational factors, psychological states, self-independence behavior, and life satisfaction as predictors. This research deploys quality tools that are strictly audited to examine psychosocial indicators related to the quality of life of adolescent mothers.

Methods

The correlation to comparative study aims to determine the significant predictors and degree of

prediction of adolescent mothers' quality of life by using psychological traits, situational factors, psychological states, self-independence behavior, and life satisfaction as predictors. A quality-checked questionnaire is used to collect data.

Participants and procedure

A population is a group of adolescent mothers in five provinces with the highest number of adolescent mothers according to statistics of Bureau of Reproductive Health, Department of Health, Department of Health, Ministry of Public Health (2016): Chonburi, Nakhon Nayok, Rayong, Prachuap Khiri Khan, and Samut Sakhon. Stratified quota random sampling was used to decide the sample (Kerlinger & Lee, 2000). Three variables were calculated to randomize the sample: province, residential areas, and number of adolescent mothers in each province. The details were as follows: 1) Provinces with the highest number of adolescent mothers, 5 provinces in total; 2) residential areas divided into 2 categories: rural and urban, and 3) sample size of adolescent mothers were defined by the living area variable, 60 people per province, which was expected to collect 5 x 2 x 60 = 600 people.

Tools

The tool used in this research is an overall rating scale with a scale of 1-6 for every sentence. There are 7 types of variable measurements. Namely, type 1 is a measure of self-independence behavior, consisting of three measures: self-independence related to health, self-independence related to social relation, and self-independence related to the economy. Type 2 is a measure of life satisfaction, consisting of one measure. Type 3 is a measure of adolescent mothers' quality of life, consisting of one measure. Type 4 is a measure of psychological traits consisting of three measures: attitude towards self-independence behavior, social comparison, and Intention to be a good mother. Type 5 is a measure of situational factors, consisting of four measures: relationship with parents, encouragement from family, consultancy from surrounding people, and good relationship with spouse. Type 6 is a measure of psychological traits, consisting of five measures: mental health, belief in internal locus of control of reinforcement, future orientation, and self-control mental health, belief in internal locus of control of reinforcement, future orientation and self-control, core self-evaluation, and psychosocial adaptation. Lastly, type 7 is a measure of the biosocial characteristics and background of the sample. Thereby, there are seventeen measures in this research. The assessment of measurement items was conducted by computing 1) item discrimination (t-value) and 2) item-total correlation (r-value) (see Table 1).

Table 1: Assessment of measurement items of this research.

Measurement Items	Item number	Score Range	t-value	r-value	Reliability (α)
1. Self-independence related to health *	23	23 - 138	2.84 – 10.20	0.25 - 0.77	0.89
2. Self-independence related to social relation*	11	11 - 66	6.32 – 10.52	0.41 - 0.70	0.86
3. Self-independence related to economy *	13	13 - 78	2.78 – 9.20	0.24 - 0.56	0.80
4. Life satisfaction *	8	8 - 48	10.08 - 12.92	0.48 - 0.84	0.89
5. Adolescent mothers' quality of life in control aspect *	12	12 - 72	9.70 – 14.76	0.71 - 0.85	0.92
6. Adolescent mothers' quality of life in freedom aspect *	8	8 - 48	4.42 – 7.95	0.30 - 0.66	0.73
7. Social comparison	8	8 - 48	4.57 – 9.02	0.29 - 0.59	0.71
8. Intention to be a good mother *	8	8 - 48	4.66 – 13.38	0.25 - 0.76	0.80
9. Relationship with parents*	8	8 - 48	7.44 - 19.09	0.49 - 0.79	0.89
10. Encouragement from family*	8	8 - 48	8.05 – 15.08	0.71 - 0.85	0.92
11. Consultancy from surrounding people *	8	8 - 48	8.67 – 14.32	0.32 - 0.80	0.88

Table 1: Assessment of measurement items of this research.

Measurement Items	Item number	Score Range	t-value	r-value	Reliability (α)
12. Good relationship with spouse	8	8 - 48	6.59 - 14.38	0.47 - 0.83	0.90
13. Mental health	8	8 - 48	6.33 – 10.83	0.50 - 0.74	0.86
14. Psychological traits	8	8 - 48	2.53 – 8.37	0.27 - 0.49	0.76
15. Future orientation and self-control	8	8 - 48	4.11 – 12.86	0.22 - 0.69	0.76
16. Core self-evaluation	8	8 - 48	5.13 – 15.19	0.34 - 0.70	0.80
17. Psychosocial adaptation	8	8 - 48	6.67 - 10.36	0.35 - 0.57	0.76

Note: * this measurement was developed by the author

Ethical consideration

This research was approved by the human research ethics committee, Nakhon Nayok Provincial Public Health Office: NPHO 2019-0014. All the samples participating in this research received the protection of human research samples. Before collecting data, the researcher clarified the objectives, methods of conducting research, benefits, and risks of participating in this research. The participants had the right to leave this research without giving reasons. If they had any questions about the research, they could ask the researcher at any time. When the participants clearly understood, they voluntarily signed a consent form. The information on the samples was confidential. The research report will be presented holistically. There would not be any effects on the sample.

Data collection

Data collection was conducted after the measurement was fully developed. The researcher determined the appropriate date and time for data collection from 1-30 April 2021. The researcher, then, proceeded to collect the data.

Data analysis

After obtaining the complete measures from all samples, the answers were decoded and computed by software. There were two statistics used: Pearson's product-moment correlation for finding the correlation of the variables, and multiple regression analysis (MRA) with enter and stepwise methods.

Hypotheses

Psychological traits (good mental health, belief in internal locus of control of reinforcement, future orientation and self-control, core self-evaluation, and psychosocial adaptation) in conjunction with situational factors (relationship with parents, encouragement from family, consultancy from surrounding people, and good relationship with spouse), psychological states (attitude towards self-independence behavior, social comparison, and intention to be a good mother), self-independence behavior (self-independence related to health, self-independence related to social relation, and self-independence related to economy), and life satisfaction, which consisted of 16 variables in total, are able to predict the quality of life of adolescent mothers at least 30%.

Results

1) Results of correlation between variables observed in this research

Results of correlation between variables (Table 2) indicate self-independence behavior variables, including self-independence related to health, self-independence related to social relation, and self-independence related to economy, have significant and positive correlations with quality of life with correlation coefficients of .606 (p<.01), .669 (p<.01), and .564 (p<.01) respectively. It also shows that life satisfaction variables are significantly and positively correlated with quality of life with a correlation coefficient of .672 (p<.01).

Three variables of psychological states consist of attitude towards self-independence behavior, social comparison, and intention to be a good mother. It is found that social comparison, intention to be a good mother and attitude towards self-independence behavior are positively correlated with quality of life with correlation coefficients of .707 (p<.01), .653 (p<.01), and .518 (p<.01) respectively. The situational factors group comprises four variables: relationship with parents, encouragement from family, consultancy from surrounding people, and good relationship with spouse. It is found that encouragement from family, relationship with parents, consultancy from surrounding people, and good relationship with spouse have a significantly positive correlation with quality of life (correlation coefficients were .610 (p<.01), .580 (p<.01.), .576 (p<.01), and .548 (p<.01) respectively. Five variables of psychological traits consist of good mental health, belief in internal locus of control of reinforcement, future orientation and self-control, core self-evaluation, and psychosocial adaptation. It is discovered that psychosocial adaptation, core self-evaluation, future orientation, self-control, belief in internal locus of control of reinforcement, and good mental health are positively correlated with quality of life with correlation

coefficients of .650 (p<.01), .546 (p<.01), .407 (p<.01), .320 (p<.01), and .269 (p<.01) respectively.

Indicator variable abbreviations in Table 2
Indicator 1 Quality of life (QoL)
Indicator 2 Self-independence related to health (Health)
Indicator 3 Self-independence related to social relation (Social)
Indicator 4 Self-independence related to economy (Economy)
Indicator 5 Life satisfaction (Satis)
Indicator 6 Attitude towards self-independence behavior (Att)
Indicator 7 Social comparison (Socom)
Indicator 8 Intention to be a good mother (Intent)
Indicator 9 Relationship with parents (Rela)
Indicator 10 Encouragement from family (Encour)
Indicator 11 Consultancy from surrounding people (Consul)
Indicator 12 Good relationship with spouse (Relahus)
Indicator 13 Mental health (Meh)
Indicator 14 Belief in internal locus of control of reinforcement (Locus)
Indicator 15 Future orientation and self-control (Fosc)

Table 2: Results of correlation between variables observed in this research Note.

Indicator variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
QoL	54.74	7.25	1.00																
Health	62.10	6.62	.606**	1.00															
Social	51.88	6.78	.669**	.679**	1.00														
Economy	47.29	9.01	.564**	.505**	.410**	1.00													
Satis	37.41	6.49	.672**	.473**	.608**	.426**	1.00												
Att	34.19	3.91	.518**	.306**	.398**	.273**	.343**	1.00											
Socom	31.12	5.07	.707**	.459**	.455**	.565**	.404**	.312**	1.00										
Inten	37.28	5.54	.653**	.538**	.671**	.341**	.630**	.362**	.464**	1.00									
Rela	36.24	7.10	.580**	.436**	.496**	.329**	.324**	.279**	.588**	.569**	1.00								
Encour	37.18	6.88	.610**	.454**	.513**	.320**	.361**	.352**	.589**	.506**	.802**	1.00							
Consul	36.83	5.99	.576**	.461**	.519**	.313**	.396**	.362**	.490**	.466**	.593**	.731**	1.00						
Relahus	37.92	8.88	.548**	.344**	.371**	.403**	.431**	.276**	.498**	.470**	.450**	.472**	.417**	1.00					
Meh	31.15	8.72	.269**	.151**	.057	.267**	.013	.014	.367**	.180**	.418**	.353**	.174**	.368**	1.00				
Locus	29.40	3.54	.320**	.202**	.220**	.185**	.105**	.108**	.279**	.291**	.431**	.386**	.306**	.338**	.531**	1.00			
Fosc	34.72	5.08	.407**	.383**	.375**	.257**	.248**	.213**	.317**	.504**	.491**	.387**	.339**	.371**	.428**	.470**	1.00		
Self	31.91	5.71	546**	.349**	.317**	.407**	.289**	.252**	.517**	.293**	.494**	.516**	.400**	.476**	.591**	.430**	.368**	1.00	
Psycho	38.08	6.06	650**	.477**	.526**	.414**	.449**	.283**	.620**	.607**	.645**	.633**	.535**	.655**	.434**	.474**	.522**	.617**	1.00

* p < .05, ** p < .01

Indicator 16 Core self-evaluation (self)

Indicator 17 Psychosocial adaptation (psycho)

2) Predictive results of the quality of life of adolescent mothers using psychological traits, Situational factors, psychological states, self -independence behavior, and life satisfaction as predictors.

Multiple regression analysis (MRA) with enter and stepwise methods was performed to analyze the quality of life score of adolescent mothers by using psychological traits, situational factors, psychological states, self-independence behavior, and life satisfaction as predictors. Those predictors comprised 16 variables including good mental health, Belief in internal locus of control of reinforcement, future orientation and self-control, core self-evaluation, psychosocial adaptation, relationship with parents, encouragement from family, consultancy from surrounding people, good relationship with spouse, attitude towards self-independence behavior, social comparison, intention to be a good mother, self-independence related to health, self-independence related to social relation, self-independence related to economy, and life satisfaction. The holistic analysis result (Table 3-1,2) depicts that 16 variables of psychological traits, situational factors, psychological states, self-independence behavior, and life satisfaction can predict the quality of life of adolescent mothers at 78.7%. The most important predictors in descending order are social comparison, life satisfaction, attitude towards self-independence behavior, and core self-evaluation which have beta values of .29, .26, .17, and .13 respectively. It implies that adolescent mothers with a higher degree of social comparison, life satisfaction, attitude

Table 3: Predictive results of the quality of life of adolescent mothers using psychological traits, situational factors, psychological states, self-independence behavior, and life satisfaction as predictors..

Category	Samples	Psychological traits, situational factors, psychological states, self-independence behavior, and life satisfaction predictors (1-16)		
		% Predict	Predictors	β-value
Total	620	78.7	11, 16, 10, 4	.29 .26 .17 .13
Not pregnant while studying	359	80.3	11, 16, 10, 4, 12	.26 .25 .19 .18 .14
Pregnant while studying	261	78.4	11, 16, 10, 14, 5	.32 .29 .16 .16 .14
Low education	365	78.8	11, 10, 16, 14, 4	.32 .21 .18 .14 .13
High education	255	82.1	16, 11, 4, 10	.46 .27 .18 .13
Unemployed	384	79.5	16, 11, 10, 14	.35 .30 .19 .15
Employed	236	80.5	11, 15, 16, 10, 14	.36 .26 .22 .17 .16
Low salary	395	79.8	16, 11, 5, 10	.33 .32 .26 .25
High salary	225	79.0	11, 16, 10, 13	.47 .37 .18 .16
Earn her living	132	81.6	12, 11, 10, 9	.36 .32 .24 .19
Husband's earning	319	81.1	11, 16, 10, 4	.33 .32 .15 .12
Family's earning	169	77.5	16, 11, 10, 5	.44 .35 .20 .17
Stay with husband	483	81.6	16, 11, 10, 4	.45 .38 .19 .16
Not stay with husband	137	71.9	11, 12, 10, 4	.38 .31 .27 .19

Note: all beta-value is significant at .05

towards self-independence behavior, or core self-evaluation tend to have a good quality of life.

Indicator 1 Mental health (Meh)

Indicator 2 Belief in internal locus of control of reinforcement (Locus)

Indicator 3 Future orientation and self-control (Fosc)

Indicator 4 Core self-evaluation (Self)

Indicator 5 Psychosocial adaptation (Psycho)

Indicator 6 Relationship with parents (Rela)

Indicator 7 Encouragement from family (Encour)

Indicator 8 Consultancy from surrounding people (Consul)

Indicator 9 Good relationship with spouse (Relahus)

Indicator 10 Attitude towards self-independence behavior (Att)

Indicator 11 Social comparison (Socom)

Indicator 12 Intention to be a good mother (Intent)

Indicator 13 Self-independence related to health (Health)

Indicator 14 Self-independence related to social relation (Social)

Indicator 15 Self-independence related to economy (Economy)

Indicator 16 Life satisfaction (Satis)

According to the results of data analysis in 13 subgroups (Table 3-1,2), it is found that 16 variables of psychological traits, situational factors, psychological states, self-independence behavior, and life satisfaction are the most predictive among highly educated adolescent mothers. They can predict by 82.1%, with the descending order of importance: life satisfaction (β = .46), social comparison (β = .27), core self-evaluation (β = .18), and attitude towards self-independence behavior (β = .13), respectively. The second group with a high predictive percentage is adolescent mothers who earn their living. They can predict by 81.6%. The most significant indicators in descending order are intended to be a good mother (β = .36), social comparison (β = .32), attitude towards self-independence behavior (β = .15), and good relationship with spouse (β = .12), respectively. Lastly, the group with the lowest percentage of prediction is the juvenile mothers who did not live with their husbands. They can predict by 71.9%, with the important indicators in descending order: social comparison (β = .38), intention to be a good mother (β = .31), attitude towards self-independence behavior (β = .27), and core self-evaluation (β = .19), respectively. It can be further interpreted that a young mother who is determined to be a good mother or have a good relationship with her spouse tend to have a very good quality of life. The percentage prediction in other groups that also use psychological traits, situational factors, psychological states, self-independence behavior, and life satisfaction as predictors, which consisted of 16 variables, range from 81.1% to 77.5%.

Discussion

In accordance with the hypothesis stating that "psychological traits, situational factors (relationship with parents, encouragement from family, consultancy from surrounding people, and good relationship with spouse), psychological states (attitude towards self-independence behavior, social comparison, and intention to be a good mother), self-independence behavior (self-independence related to health, self-independence related to social relation, and self-independence related to economy), and life satisfaction, which comprised of 16 variables in total, were able to predict the quality of life of adolescent mothers at least 30%". The results of the multiple linear regression analysis revealed a supportive result for the quality of life of adolescent mothers (see Table 3-1,2). It was found that all 16 predictors were able to predict the quality of life of adolescent mothers by more than 30% in the overall group (see Figure 1) and every subgroup.
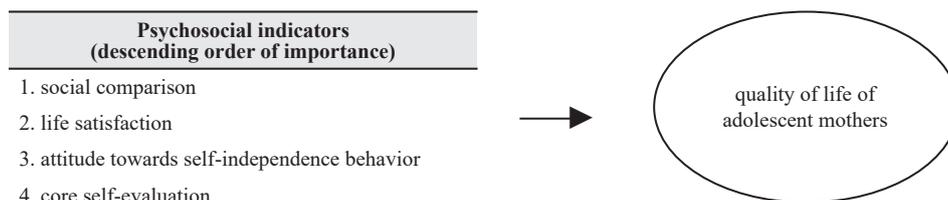
Psychosocial indicators (descending order of importance)
1. social comparison
2. life satisfaction
3. attitude towards self-independence behavior
4. core self-evaluation

quality of life of adolescent mothers

Figure 1: Predicting the quality of life of adolescent mothers

Conclusion

The result indicates that the situational indicator group together with the psychological trait group and psychological state group can predict self-independence related to health, self-independence related to social relation, self-independence related to economy, life satisfaction, and quality of life of adolescent mothers more than any independent set of indicators. This result is consistent with the research of sufficiency living behavior (Laisam et al., 2020). Besides, there were some other researches with similar results such as participation behavior in environmental conservation (Thongma, et al., 2020), Dengue prevention behavior (Nimsuwan, Nimsuwan, Sriporn-ngam, & Choosuk, 2017), and explanations of helping behavior (Lefevor & Fowers, 2016). In addition, this research also reveals that the indicators of situation psychological traits, and psychological state are very important to self-independence related to health, self-independence related to social relation, self-independence related to economy, life satisfaction, and quality of life of adolescent mothers. This research result supports the theory of interactionism model (Magnusson & Endler, 1977) and the tree moral theory (Bhanthumnavin, 2000). Tree moral theory shows the causes of good behavior and the behavior of smart people in which these behaviors are rooted in the mind of the doer. The psychological causes will change according to the situation and mental characteristics according to the ethical tree theory. This indicates that various psychological traits that are essential for behavior and should be developed along with providing knowledge on the subject that needs to be improved. This research can be a practical contribution to relevant authorities to improve adolescent mothers' quality of life and can be applied to study of self-independence behavior, life satisfaction to improve the quality of life of adolescent mothers.

Acknowledgements

Ethical consideration

This study adhered to ethical considerations where the researcher was officially permitted to research by given the clearance letter from the authority from the human research ethics committee, Nakhon Nayok Provincial Public Health Office.

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