

Associations Between Family Communication, Perceived Stress and Resilience with Life Satisfaction Among UPM Pre-University Students

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ABSTRACT

Background: Alfred W. Adler (1870-1937), psychotherapist and founder of the school of individual psychology, believed that education, marriage, and job play important role in human development. Higher learning is a demanding and challenging period for students that can result in high rates of psychological distress affecting their life satisfaction.

Aim: The research is to study the links between family communications, perceived stress and resilience with life satisfaction among pre-university students in UPM.

Method: A cross-sectional study was conducted among a sample of 310 (females 158 and 152 males) pre-university students from a public university in Malaysia. Four instruments were used in this research namely the Family Communication Scale (FCS, Olson et al., 2004), Perceived Stress Scale (PSS, Cohen et al., 1983) Resilience Scale (CD-RISC, Connor-Davidson, 2003) & The Satisfaction with Life Scale (Diener et al. 1985). The data were analyzed using independent t-test, Pearson correlation coefficients and multiple regressions.

Results: The finding of this study revealed that there are simple and multiple relationships between family communications, perceived stress and resilience with life satisfaction among pre-university students.

Conclusion: The research may guide university counselors to view adolescents' life satisfaction holistically and assist them in developing preventive and intervention plans for the university new enrolled students. Also, the results will provide students with some knowledge on their life satisfaction and its effects on their future accomplishments.

Keyword: Family Communication; Perceived Stress; Resilience; Life Satisfaction; Pre-University Students

INTRODUCTION

Adolescence is a period of life with specific health and developmental needs and rights. This stage is the shift from childhood into adulthood. The World Health Organization (WHO) defines an adolescent as any person between ages 10 and 19. This age range falls within WHO's definition of young people, which refers to individuals between ages 10 and 24 (Csikszentmihalyi, 2020). It is a period of significant biological, psychological, and cognitive development. It has been described as a period of both opportunity and risk (Chow, 2005; Leffert & Petersen, 1995). As part of the psychosocial developmental, most young adult deal with existential issues, at some level, in their efforts to achieve integrity or coherence that affect on their mental health. Mental health refers to how people evaluate their lives and includes variables such as life satisfaction, lack of depression and anxiety, and positive moods and emotions (Diener and Diener, 1995). Life satisfaction, which is regarded as the cognitive component of subjective well-being, is individuals' assessment of their life according to criteria they have chosen (Dorahy et al., 2000; Schimmack, Radhakrishnan, Oishi, et al., 2002; Tuzgöl-Dost, 2007; Çivitçi, 2012). A person's perceptions about the extent to which he / she achieved his / her goals and ideals show their level of life satisfaction (Pavot & Diener, 1993; Bradley & Crown, 2004). The level of satisfaction with life is affected by variables such as happiness in daily life, meaning attributed to life, compliance with achieving goals, positive individual identity, personality traits, level of informed awareness, physical wellbeing of the individual, economic security,

social relationships, and professional and current state policy (Schmitter, 2003; Kashdan & Steger, 2007; Appleton & Song, 2008; Wang & Kong, 2014). Low levels of life satisfaction in university students may lead to a decrease in their academic success (Tuzgöl Dost, 2007), dropping out of school, high levels of state anxiety (Deniz, Dilmaç & Arıca, 2009),

While life satisfaction has been found as statistically significant with depression, anxiety in college years, young adults are responsible for their health, school life and financial situation. Therefore, college years are accepted as one of the most periods since youths need to manage their own lives (Cress & Lampman, 2007), and is related to a well-lived and fulfilling life in the future which are related to subjective well-being that measured by life satisfaction, anxiety, depression, and hopelessness (Guney, Kalafat, & Boysan, 2010). Low levels of life satisfaction in university students may lead to a decrease in their academic success (Tuzgöl Dost, 2007), dropping out of school, high levels of state anxiety (Deniz, Dilmaç & Arıca, 2009).

Subjective well-being is the main concept in psychology, especially positive psychology. Positive psychology has its historical roots in Greek philosophers like Aristotle who discussed the roles of hedonia and eudaimonia in the pursuing of a good life (Thorsteinsen & Vittersø, 2018). The hedonic belief that life should be full of enjoyment and pleasure while the eudemonic belief focuses upon the use of knowledge and virtue to better one's state of being. The field of positive psychology at the subjective level is about valued subjective experiences such as well-being,

pleasure, satisfaction, hope, and happiness. At the individual level, it is about positive traits like love and vocation, wisdom, high talent, perseverance, forgiveness, and aesthetic sensibility. At the group level, it is about the civic virtues that motivate individuals toward better citizenship behaviors like altruism, responsibility, support and help, civility, moderation, tolerance, and work ethic. A psychological construction related to hedonic called subjective well-being is defined as 'a person's cognitive and affective evaluations of his or her life' (Diener, Lucas, & Oishi, 2002) include positive affect (PA), negative affect (NA), and life satisfaction (Diener, Emmons, Larsen & Griffin, 1985).

According to Beutell (2006), life satisfaction reflects the overall quality of life and is related to physical, mental health, longevity, and other outcomes that are considered positive in nature. And, improved levels of life satisfaction might give rise to better health in the future (Chow, 2009). Life satisfaction entails a combined satisfaction in definite domains like life domains such as family, marital, health, education, work, and leisure, among others (Brief et al., 1993). To date, most empirical work on life satisfaction has examined adults (Holder, 2012). As a result, there is less information on the well-being of adolescence, a time defined by hormonal growth, physical, emotional, cognitive and social development, and great changes in physical appearances (Harter, 2006 in Smith, 2010). Although the work on adults is important, it has limited generalizability to life satisfaction in youth as individuals (Park & Huebner, 2005). Moreover, factors associated with adults' life satisfaction (i.e. job satisfaction, being married, and having children) are often not applicable to adolescents (Holder, 2012). Examining life satisfaction in youth requires comprehensive knowledge of the multiple factors that influence how adolescents perceive their own lives (Forste & Moore, 2012). Thus, the complex interplay between adolescents and the environmental factors requires investigation to the various aspects that lead to their life satisfaction. The limited research on adolescent life satisfaction is somewhat surprising as today's society places such great emphasis on the development of well-being in youth. Well-being is central to healthy development (Forste & Moore, 2012), and Suldo and Huebner (2004b) consider life satisfaction as an important protective asset that should be fostered by parents, teachers, and others who work to promote the positive development of children and adolescents. By identifying the early markers, predictors, processes, and risk factors influencing life satisfaction in adolescence, one is able to form the foundation for health promotion, prevention and treatment measures. As the effects of promotion and preventive measures usually are greatest if they start before problems expand, actions should commence at an early age (Gusevik Opshaug, 2013). Generally, the present study aims to contribute to the understanding of life satisfaction by examining the potential predictors of life satisfaction among students who study in pre-university level of UPM (University Putra Malaysia).

To understand adolescent, one needs to study his or her family, in particular family communication. Studies have shown the importance and role of family communication and family environment in one's life satisfaction (Martin,

Huebner, & Valois, 2008; Proctor, Linley, & Maltby, 2009). Huebner (1994) found five important domains of life satisfaction which include family, school, self, friends, and living environment. Life satisfaction is positively correlated with authoritative parenting, perceived parental support, perceived quality of attachment to parents, perceived loving parental relationship, and parental marital status and family structure (Proctor, 2014). Levin, Dallago, and Currie (2012) and Kwan (2008) found a relationship between family structure and life satisfaction for boys and girls aged 13 and 15 years. For both boys and girls at all ages, life satisfaction was more strongly associated with parent-child communication than with family structure or family privileged circumstances. Difficult parent-child communication acted as a risk factor for low life satisfaction for boys and girls, while easy communication acted as protective factor among girls only.

Based on a study by Diener et al. (1999), adolescents' social relationships with family members and others affect their life satisfaction; also Gallagher and Vella-Brodrick (2008) cited that social support from parents, relatives, and friends play an important role in adolescent life satisfaction. Cava, Buelga, and Musitu (2014) analyzed the influence of communication with the mother and father on adolescents' life satisfaction, as well as possible indirect effects through self-esteem, feelings of loneliness, and perceived classroom environment. Their study results indicated a direct effect of communication-mother and communication-father on adolescent life satisfaction with indirect effects through self-esteem and feelings of loneliness. Deniz, et al. (2013) found that positive significant relationship was found between democratic parental attitude and subjective well-being and life satisfaction scores while negative relation was found between protective and authoritarian parental attitude and subjective well-being and life satisfaction scores. According to regression analysis, perceived parental attitudes predict subjective well-being and life satisfaction significantly.

One of the challenging process of university life is about one's ability to handle multi-facets and levels of stress targeting students' life satisfaction. They are particularly vulnerable to the problems associated with academic stress that decrease their life satisfaction at the personal and social levels. The estimated prevalence for mental health problems was 19.2% with 67.4% reporting subsyndromal symptoms (Stallman, 2010). These rates were significantly higher than the general population. Psychological distress was associated with disability and lower academic achievement. Predictors of distress included: full-time status, financial stress, being aged between and 18 and 34 years, being female, and in a subsequent undergraduate year of their degree. Stallman (2010) concluded that the extremely high prevalence of mental health problems in university students provides evidence for this being an at-risk population. The study results highlighted the need for universal early interventions to prevent the development of severe mental illness in university students. Inquimbert et al. (2017) and Saleh, Camart, and Romo (2017) found that university life could be a major source of stress to adolescence. Alleyne, Alleyne, and Greenside (2010) revealed that lower levels of satisfaction with life are related to students' life satisfaction

from the living environment, campus facilities, and perceived stress. Inquimbert et al. (2017) identified the most stressful items among French dental students were "the number of tasks to be performed during clinical practice," "the waiting time before opinion from teachers," and "the administrative part and computer problems." Only 54% percent of the students claimed to be satisfied with their studies, showing a score of seven or higher. There was a negative correlation between the level of student satisfaction and the level of perceived stress. Students found that examinations were too stressful and that the clinical requested task quotas were overestimated. Saleh, Camart, and Romo (2017) indicated that university students often face different stressful situations. The study results showed that 72.9%, 86.3%, and 79.3% of them suffered from psychological distress, anxiety and depressive symptoms, respectively. More than half of the sample also experienced low self-esteem (57.6%), little optimism (56.7%), and low sense of self-efficacy (62.7%). The research regression analyses revealed that life satisfaction, self-esteem, optimism, self-efficacy and psychological distress were the most important predictors of stress. Çivitci (2015) showed that students with a high college and major belonging had low perceived stress and high life satisfaction. Perceived stress and life satisfaction did not change significantly based on whether the students participated in extracurricular activities. Tan Xin Hui, and Mohd. Ramzan (2017) found a significant negative correlation between perceived stress and life satisfaction. Lu et al. (2015) found that anxiety, depression, and even suicidal ideation are becoming the most common mental health problems affecting Chinese college students. Over half of the students, particularly freshman suffered from at least one mental health problem. Similarly, Adamiak (2004), and Vandentorren, Verret, Vignonde, and Maurice-Tison (2005) found a relationship between life satisfaction and mental health in adolescents where low life satisfaction was associated especially with depression and anxiety. The prevalence of such mental disorders was greater than that of the general population, and the majority of students with mental health problems affected their life satisfaction.

Another factor associated with adolescence' life satisfaction is resilience. Ryan, LaGuardia, and Rawsthorne (2005) examined the concepts of self-complexity and authenticity as components of resilience. Self-complexity involves the aspects of self like relationships, activities, life roles and personality attributes, such as motivation. Authenticity is the degree to which these personal descriptions are derived from the self-versus imposed from an outside source. The results of Ryan et al. (2005) supported the hypothesis that an internally developed sense of self was strongly related to high levels of life satisfaction and resilience. Rani and Midha (2014) found that the moderate low level of resilience and average level of life satisfaction among teenagers in the contemporary Indian society. Barnes and Lightsey (2005) found that higher levels of resilience was associated with lower levels of stress and higher levels of life satisfaction. Active problem solving, or the ability to search for solutions to problems, was related to higher life satisfaction, whereas techniques that involved avoidance led to decreased life satisfaction. Overall, those who were

more resilient experienced higher levels of life satisfaction. Altundağ and Bulut (2014) discovered that while there was a positive relationship between resilience and life satisfaction, a strong negative relationship was found between resilience and loneliness among adolescents whose parents were divorced. Regression analysis revealed that, while loneliness was a significant predictor on resilience, life satisfaction was not a significant predictor of resilience. Nemati and Mehdipour Maralani (2016) investigated the mediating role of resiliency in the relationship to life satisfaction and happiness. The study used correlation and the research population consisted of 241 female students from the University of Tehran who were chosen with the simple random sampling method to answer the questionnaires. To measure the variables of the research, the scale of life satisfaction proposed by Diener et al. (1985), the resiliency of Conner and Davidson (2003), and Oxford happiness (1989) were utilized. The results which were attained using the method of structural equation modeling demonstrated that the exogenous variable of life satisfaction has a significant direct effect on happiness. In addition, according to the results, the relationship between life satisfaction and happiness is mediated by resiliency. In this pattern, all the regression weights were significant from a statistical perspective, and in general, the results show that life satisfaction affects happiness directly and via the mediation of resiliency. In a study, Cejudo, López-Delgado, and Rubio (2016) showed that individuals with a high level of resilience and emotional repair have the highest rates of satisfaction with life. Finally, that study highlighted the need to foster education of emotional intelligence and resilience to improve personal well-being.

With the establishment of private and public universities in Malaysia, more Malaysians are entering higher education to seek for better future. This quest for knowledge and skills presents on them adaptation challenges that may influence their psychological well-being and life satisfaction. Abd Kadir Abu Bakar, Abdul Aiman Abd Ghani, Abu Bakar Rahman, and Zanariah Zaini (2015) reported that among students who took DASS-21, 27.5% had moderate and 9.7% had severe or extremely severe depression, 34% had moderate and 29% had severe or extremely severe anxiety, and 18.6% had moderate and 5.1% had severe or extremely severe stress scores. The students reported their depression and anxiety scores came from academic commitments, financial pressures, lack of time management skills, and low levels of tolerance and resilience in unpleasant and harmful accidents and situations. All these factors decreased their life satisfaction. Adolescents who have low levels of life satisfaction are predicted to exhibit internalising and externalising behaviors in the future (Haranin, Huebner, & Suldo, 2007).

Many variables including family communication, stress, and resilience are related to adolescent' life satisfaction. Undoubtedly, family structure, family relationships, perceived stress, resilience and students' individual differences influence their life satisfaction. University students are valuable asset to be developed for the future of a country. Thus, it is necessary to study components related to their life satisfaction so that

university can help in promoting healthy life style among them. Therefore, the present research was to determine components related to life satisfaction among UPM pre-university students by exploring some variables such as family communication, perceived stress, and resilience.

Research objectives

The present study was to achieve the following objectives: To identify the differences in family communication, perceived stress, resilience, and life satisfaction between male and female pre-university students. To identify the relationships among family communication, perceived stress, and resilience with life satisfaction. To examine the multiple relationship between family communications, perceived stress, and resilience with life satisfaction.

Significance of study

The results of the study will be of benefit to the followings: From the theoretical aspect, the results identified the variables related to new students’ life satisfaction. The relationships among the variables, family communication, perceived stress, resilience, and life satisfaction can be better understood. From the practical aspect, the findings may help university counselors to view adolescents’ life satisfaction comprehensively and to develop preventive plans for its new enrolled students, especially to those with low life satisfaction level. Also, the results will provide students with some knowledge on their life satisfaction and its effects. It will help the students realize that a decrease in life satisfaction may adversely affect their academic performance abilities and future achievements.

METHODOLOGY

Research Design, Population, and Sample

The research used a cross-sectional design. The subjects were randomly selected 310 pre-university students (158 females and 152 males) with mean age of 19.3. All participants completed anonymous, self-administered questionnaires which included questions about their socio demographic and research predictor variables and criterion variable.

Instruments

The study utilized four instruments namely the Family Communication Scale (FCS), the Perceived Stress Scale (PSS), Connor-Davidson Resilience Scale (CD-RISC) and the Satisfaction with Life Scale (SLS).

The Family Communication Scale introduced by Olson, Gorall, and Tiesel in 2004 is a self-report measure of family communication for subjects aged 12 years and

older. It consists of 10 items with five optional responses for each item: Strongly Disagree (1), Generally Disagree (2), Undecided (3), Generally Agree (4) and Strongly Agree (5). The total score is the sum of the scores, ranging from 10 to 50 points. A higher score indicates a better level of family communication. Olson et al. (2004) reported an acceptable level of internal consistency in a national sample for the scale at $\alpha = .88$. The FCS alpha Cronbach value was $\alpha = .88$ for the present study.

The Perceived Stress Scale (PSS) is a classic stress self-report assessment developed by Cohen, Kamarck, and Mermelstein (1983). The PSS-10 consists of 10 items that uses 5-point Likert scale, ranging from 0 (never) to 4 (very often). The PSS-10 has six positive items (No. 1, 2, 3, 6, 9 and 10) and four negative items (No. 4, 5, 7 and 8). Negative items were re-coded during analysis. The sum of the 10 items represents the total score with higher scores representing higher levels of perceived stress. For the current study, alpha Cronbach value for PSS was $\alpha = .79$.

Connor-Davidson Resilience Scale (CD-RISC) was designed by Connor-Davidson (2003) as a self-report measure of resilience within the Post Traumatic Stress Disorder (PTSD) clinical community. This instrument has 10 items with 5-point Likert scale assessing personal qualities that enable one to thrive in the face of adversity. Scores range from 0 (not true at all) to 4 (true nearly all the time). For the current study, the alpha Cronbach value for CD-RISC was $\alpha = .82$.

The Satisfaction with Life Scale was developed by Diener et al. (1985) to measure global satisfaction with life. The instrument has five items and used a 7-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (7). In the instrument development study, the authors reported good internal consistency ($\alpha = .87$) and a two-week test-retest reliability ($r = .82$) (Diener et al. 1985). For the current study, the alpha Cronbach value of this scale was $\alpha = .84$.

Data Analysis

Data was analyzed for both descriptive and inferential statistics. The descriptive statistics involves frequency, percentages, mean, and standard deviation. Meanwhile, for the inferential analysis, the study used t-test of independent samples, Pearson correlation and regression. The study used the significant level of .001.

FINDINGS

Table 1 :Results of Independent t-test to determine the differences in the variables (N=310)

Variable	Group	N	Mean	SD	T	df	Sig
Family Communication	Male	153	40.76	6.45	1.14	308	.256
	Female	157	39.96	6.08			
Percieved Stress	Male	153	30.09	6.99	.23	308	.817
	Female	157	29.94	4.63			
Resilience	Male	153	28.91	5.22	-.19	308	.843
	Female	157	29.03	5.68			
Life Satisfaction	Male	153	24.69	5.24	.52	306	.603
	Female	157	24.38	5.29			

The hypotheses were tested using independent-samples t-test to compare male and female students in dependent or

criterion variable (Life Satisfaction) and predictors (Family Communication, Perceived Stress, and Resilience).

According to Table 1, there are no significant differences in mean scores of all variables of this research. It means, there are no differences between male and females in terms of all variables of this research. In order to determine relationships of predictor variables and criterion variable as

well as the factors that influence life satisfaction, Pearson correlations and multiple linear regressions test were used. The Tables 2, 3 and 4 show Pearson correlations and multiple linear regressions in the study.

Table 2 :Descriptive statistics and Pearson correlations between the variables (n = 310)

Variables	Mean	SD	Family Communication	Perceived Stress	Resilience	Life satisfaction
Family Communication	40.39	6.37	-	- 0.25*	0.47*	0.43*
Perceived Stress	30.02	5.90	- 0.25*	-	- 0.44*	- 0.39 *
Resilience	28.97	5.43	0.47*	- 0.44*	-	0.56*
Life Satisfaction	24.53	5.26	0.43*	- 0.39 *	0.56*	-

As shown in Table 2, there is a significant negative correlation between perceived stress and resiliency, family communication and life satisfaction, and there is a

significant positive correlation between resilience, life satisfaction and family communication.

Table 3: Summary of simple regression analyses for variables predicting happiness (N=310)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.61	.373	.367	4.186

1 (Predictors: Family communication, Perceived stress, and Resilience)

Table 4: Perceived stress, family communication and resilience, as predictors of life satisfaction

Model	B	S.E	β	t	p
(Constant)	12.74	2.86	-	4.45	p < 0.001
Family Communication	0.17	0.04	0.21	4.03	P < 0.001
Perceived Stress	-0.19	0.06	0.18	-3.56	P < 0.001
Resilience	0.37	0.05	0.38	6.84	P < 0.001

F ratio = 60.37, p < 0.001

As shown in Tables 3 and 4, family communication, perceived stress, and resilience as predictors variables could explain 37.3% of variance in life satisfaction [MR= 0.61, F (3, 307) = 60.37, p < 0.001]. Resilience [β = 0.38] played a more important role in explaining life satisfaction than family communication [β = 0.21] and perceived stress [β = - 0.18]. Life satisfaction regression formula was as follows: $\hat{y} = 12.74 + 0.208$ (family communication) - 0.180 (perceived stress) + 0.380 (resilience).

DISCUSSION

Family communication and Life Satisfaction

Family represents one of the complex relationships in existence. Good listening and communication skills are basis of good relationships in family system. The skills help each member to communicate with each other in comprehensible manner. Parents should be able to talk to their children and make sure that they also understand their children' worries. Parents should be able to explain complicated adult ideas in such a way that the children can understand them. Conversely, children also learn to share and demonstrate their feelings to their parents. This

reciprocal sharing of emotions and experiences within the family enhances the trust and mitigate stress in the relationship. Being able to discuss family events, activities, and rules with each other allows the family to form a cohesive and stronger unit (Rothbaum et al., 2002)

The present study shows that there is a significant positive correlation between family communication and life satisfaction. This result is supported by Levin et al. (2012) who found the quality of family communication had a greater impact than family structure or financial resources on adolescents' life satisfaction. Besides, parental communication may affect adolescents' life satisfaction indirectly. Good communication could increase adolescents' self-esteem and decrease feelings of loneliness, as they would feel closer, more valued, and better understood by their parents (Cava et al., 2010). The influence of family communication on adolescents' self-esteem and feelings of loneliness and life satisfaction have been identified by others like Kong and You (2013), Martinez-Anton et al. (2007, and Proctor et al. (2009). Satir et al. (1976) believed that families with poor communication engaged in vague, dishonest, distorted interaction. These

families are not as adept at nurturing each other resulting in low self-esteem among the members. And, they are more vulnerable in times of stress and are less competent to deal with developmental or environmental changes. The effects are obvious among students with poor family communication who experienced more stress (Fakunmoju et al., 2016).

Perceived Stress and Life Satisfaction

The present study shows a significant negative correlation between perceived stress and life satisfaction. The perceived stress may be related to individual traits, family, and environment. Adolescents often have to cope with various stressors that could be potential threats to their healthy development, psychological well-being, happiness and life satisfaction. Hui and Ramzan (2017) report a significant negative correlation between perceived stress and life satisfaction among their subjects. Weinstein and Laverghetta (2009) find that the overall life satisfaction among university students is adversely influenced by college stress. Stress reduces students' coping skills that may lead to burnout, resulting in vulnerability and reduce mental health level. Poor mental health is a risk factor for multiple diseases, a comorbidity of many physical health problems and complicates the care of co-occurring diseases. All these disorders are inversely related to life satisfaction.

Resilience with Life Satisfaction

Resilience is a psychological process developed in response to intense life stressor that facilitates healthy functioning (Johnson et al., 2011). The present findings show that life satisfaction is related to resilience. The result is supported by some studies (Bajaj & Pande, 2016; Cohn et al., 2009; Liu et al., 2013; Rani, & Midha, 2014) where resilience is related directly and indirectly to life satisfaction. Abolghasemiay and TaklaviVaraniyab (2010) find that psychological resilience and perceived stress explain 31 and 49 percent of variance of life satisfaction in the students. Several studies observe that resilience enhances psychological health and life satisfaction. Resilient individuals could maintain their physical and psychological health both through buffering negative consequences from difficult times (Connor & Davidson, 2003) and through improving psychological well-being (Beutell, 2006; Ryff & Singer, 2000). In sum, life satisfaction is highly correlated with both psychological variables and some daily life events experienced by college students. It is one of the major indicators of mental health status (Civitci, 2015). As life satisfaction increases, loneliness (Cecen, 2007; Tuzgol-Dost, 2007), depression, despair, anxiety (Gundogar et al., 2007), anger, and frequency of illness (Pilcher, 1998) decrease. Furthermore, resilience, as an important source of subjective well-being, is found to be positively correlated with life satisfaction and positive affect, and inversely related to negative affect (Hu et al., 2015; Liu et al., 2014; Lu et al., 2014; Liu et al., 2012; Liu et al., 2013; Mak et al., 2011; Singh & Yu, 2010). Within the university setting, resilience has been viewed as an asset that promotes university students' mental health requirements (Hartley, 2012). Resilience can buffer the challenging life of a

university student. Thus, the current study might shed light on some potential psychological mechanism for improving university students' well-being. Examining the role of resilience among university students will further contribute to knowledge in the field of students' well-being. Therefore, it can be concluded that an increase in resilience level, and a decrease in stress level may enhance life satisfaction in individuals like university students. The role of family communications is significant in developing resilience and perceived stress which lead in to life satisfaction in the students.

CONCLUSION

University is, to students, a place where they learn to live on their own, juggle between social and academic tasks, struggle to meet the datelines, make new friends, and participate in college activities. It provides a lot of fun yet it is also the source of stress. What students bring to their university life include their communication skills they learn from family and friends, how to form and maintain relationship, how to manage stress, and how to persevere during hard times. Yet not all students are able to acquire the necessary life skills needed to function successfully as a college student. As a result, their life satisfaction as a student can be negatively affected. This study has identified that stress can have negative effect on students' life satisfaction. But, family communication and resilience can buffer the effect of stress on life satisfaction. University should be looked upon not only as a place to acquire and enhance higher level of cognitive skills, but also as a setting where students feel safe to explore and grow as a mature individual equipped with the ability to think rationally, make wise judgment, and more important, have the ability to manage one's emotional, action, and thought. Students need to enhance their ability to manage stress by acquiring constructive self-management skills. By doing that, they can increase their self-empowerment and self-confident to lead college life satisfactorily.

CLINICAL IMPLICATIONS

The results of this study appeared to have implication for the conduct of counseling services for students studying at the higher education settings. The study suggests the university counseling unit help by organizing intervention programs consisting of life skills workshop, stress management support group, and other psycho-educational programs throughout the semester for students to participate. Appropriate intervention programs may enhance students' life satisfaction and academic performance.

DIRECTION FOR FUTURE RESEARCH

To date not many studies have addressed the role of family communication, perceived stress, and resilience with life satisfaction among pre-university students. Future research may want to examine the variables in the present study to a wider range of student groups with different educational levels. The present study only assessed the life satisfaction on the pre-university students who were students at a public or state university in Malaysia. This may give rise to common-method variance that might bias the results. Lastly, we recommend that future research be conducted

on other possible variables that may serve as factors or mediators in relation to life satisfaction such as personality traits, attachment styles, coping styles, religious and spiritual, and social factors.

CONFLICT OF INTEREST STATEMENT

The authors declare that the research was conducted in the absence of any commercial or financial relationship that could be construed as a potential conflict of interest.

LIMITATION OF THE STUDY

The study has several limitations. The study employed the cross-sectional design thus cautious must be exercised regarding the assumption of causal relations between the variables. Generalizability of findings is limited because participants were pre-university students at a public university. The sample may not represent other pre-university and university students at other universities in Malaysia. Finally, the study utilized a set of instruments to collect data. Due to that, the findings may not fully capture other factors that may influence the participants' life satisfaction.

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REFERENCES

1. Abd Kadir Abu Bakar, Abdul Aiman Abd Ghani, Abu Bakar Rahman, & Zanariah Zaini. (2015). *National health and morbidity survey 2015-VOLUME II: Non-Communicable Diseases, Risk Factors & Other Health Problems*.
2. Abolghasemi, A., & Taklavi Varaniyab, S. (2010). Resilience and Perceived Stress: Predictors of Life Satisfaction in Students of Success and Failure. *Procedia-Social and Behavioral Sciences*, 5, 748-752. <https://doi.org/10.1016/j.sbspro.2010.07.178>.
3. Adamiak, G. (2004). Assessment of life of medical students' relation to the number and intensity of depression symptoms. *Journal Psychiatria polska*, 35, 631-638.
4. Alleyne, M., Alleyne, P., & Greenidge, D. (2010). Life satisfaction and perceived stress among university students in Barbados. *Journal of Psychology in Africa*, 20(2), 291-298.
5. Altundağ, Y. & Bulut, S. (2014). Prediction of resilience of adolescents whose parents are divorced. *Psychology*, 5, 1215-1223.
6. Appleton, S., & Song, L. (2008). Life satisfaction in urban China: Components and determinants. *World Development*, 36(11), 2325-2340.
7. Bailey, R.C., & Miller, C. (1998). Life satisfaction and life demands in college students. *Social Behavior and Personality: an international journal*, 26(1), 51-56.
8. Bajaj, B., & Pande, N. (2016). Mediating role of resilience in the impact of mindfulness on life satisfaction and affect as indices of subjective well-being. *Personality and Individual Differences*, 93, 63-67.
9. Barnes, P. W., & Lightsey, O. R. (2005). Perceived racist discrimination, coping, stress, and life satisfaction. *Journal of Multicultural Counseling and Development*, 33, 48-61.
10. Beutell, N. J. (2006). *Life satisfaction in relation to domain satisfaction, mental health and physical Health*. Unpublished paper.
11. Boss, P. (2002). *Family stress management: A contextual approach*. Thousand Oaks, CA: Sage Publications.
12. Bradley, R.H., & Crown, R.F. (2004). Life satisfaction among European American, African American, Chinese American, Mexican American, and Dominican American adolescents. *International Journal of Behavioral Development*, 5, 385-400.
13. Brief, A. P., Butcher, A. H., George, J. M., & Link, K. E. (1993). Integrating bottom-up and top-down theories of subjective well-being: the case of health. *J. Pers. Soc. Psychology*, 64, 646-653.
14. Byrne, D. G., Davenport, S. C., & Mazanov, J. (2007). Profiles of adolescent stress: The development of the adolescent stress questionnaire (ASQ). *Journal of Adolescence*, 30(3), 393-416.
15. Cava, M. J., Buelga, S., & Musitu, G. (2014). Parental communication and life satisfaction in adolescence. *Spanish Journal of Psychology*, February 20, Cambridge University Press. <https://doi.org/10.1017/sjp.2014.107>
16. Cecen, A.R. (2007). An investigation of university students' social and emotional loneliness levels according to their gender and life satisfaction. *Mersin University Journal of the Faculty of Education*, 3(2), 180-190.
17. Cejudo J., López-Delgado M. L., Rubio M. J. (2016). Inteligencia emocional y resiliencia: su influencia en la satisfacción con la vida en estudiantes universitarios. *Anu. Psicol.* 46, 51-57.
18. Chow, H.P. (2005). Assessing the determinants of life satisfaction in a Canadian university student sample. *Alberta Journal of Educational Research*, 51(1), 85-91.
19. Chow, R. (2009). Happiness and Life Satisfaction Lead to Better Health. Retrieved from the World Wide Web: <http://www.naturalnews.com/025352.htm>.
20. Çivitci, A. (2015). Perceived stress and life satisfaction in college students: Belonging and extracurricular participation as moderators. *Procedia - Social and Behavioral Sciences*, 271-281.
21. Çivitçi, D. (2012). Üniversite öğrencilerinde genel yaşam doyumu ve psikolojik ihtiyaçlar arasındaki ilişkiler. *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 21(2), 321-336.
22. Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 386-396.
23. Cohn, M. A., Fredrickson, B. L., Brown, S. L., Mikels, J. A., & Conway, A. M. (2009). Happiness unpacked: positive emotions increase life satisfaction by building resilience. *Emotion (Washington, D.C.)*, 9(3), 361-368.
24. Connor K.M, & Davidson J.R. (2003). Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). *Depress and Anxiety*, 18(2), 76-82.
25. Csikszentmihalyi, M. (2020). Adolescence. *Encyclopedia Britannica*, 3 Apr. 2020, <https://www.britannica.com/science/adolescence>. Accessed 7 February 2021.
26. Darling, C.A., McWey, L.M., Howard, S.N., & Olmstead, S.B. (2007). College student stress: The influence of interpersonal relationships on sense of coherence. *Stress and Health*, 23(4), 215-229.
27. Deniz, M., Karakuş, O., Traş, Z., Eldeleklioğlu, J., Ozyeşil, Z., & Hamarta, E. (2013). Parental attitude perceived by university students as predictors of subjective well-being and life satisfaction. *Psychology*, 4, 169-173.
28. Deniz, M.E., Dılmaç, B., & Arıca, O.T. (2009). Engelli çocuğa sahip olan ebeveynlerin durumluk- süreklilik kaygı ve yaşam doyumlarının incelenmesi. *Uluslararası İnsan Bilimleri Dergisi*, 6(1), 953-968.
29. Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49(1), 71-75.

30. Diener, E., Lucas, R. E., & Oishi, S. (2002). *Subjective well-being: The science of happiness and life satisfaction*. In C. R. Snyder & S. Lopez (Eds.), *Handbook of positive psychology* (pp. 463-473). London: Oxford University Press.
31. Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*(2), 276-302.
32. Dorahy, M.J., Lewis, C. A., Schumaker, J.F., Akuamoah-Boateng, R., Duze, M.C., & Sibiya, T.E. (2000). Depression and life satisfaction among Australian, Ghanaian, Nigerian, Northern Irish and Swazi University Students. *Journal of Social Behavior and Personality*, *15*(4), 569-580.
33. Erikson, E. (1968). *Identity: Youth and crisis*. New York: Norton.
34. Extremera, N., Durán, A., & Rey, L. (2009). The moderating effect of trait meta-mood and perceived stress on life satisfaction. *Personality and Individual Differences*, *47*(2), 116-121.
35. Fiedler N, Laumbach R, Kelly-McNeil K, Lioy P, Fan ZH, et al. (2005) Health effects of a mixture of indoor air volatile organics, their ozone oxidation products, and stress. *Environmental health perspectives*, *113* (11), 1542-1548.
36. Forste, R., & Moore, E. (2012). Adolescent obesity and life satisfaction: Perceptions of self, peers, family, and school. *Economics & Human Biology*, *10*, 385-394.
37. Gallagher, E. N., & Vella-Brodick, D. A. (2008). Social support and emotional intelligence as predictors of subjective well-being. *Personality and Individual Differences*, *44*(7), 1551-1561.
38. Griffin, A. (2017). Adolescent Neurological Development and Implications for Health and Well-Being. *Healthcare*, *5*(4), 62.
39. Gundogar, D., Gul, S.S., Uskun, E., Demirci, S., & Kececi, D. (2007). Investigation of the predictors of life satisfaction in university students. *Klinik Psikiyatri- The Journal of Clinical Psychiatry*, *10*(1), 14-27.
40. Guney, S., Kalafat, T., & Boysan, M. (2010). Dimensions of mental health: Life satisfaction, anxiety and depression: A preventive mental health study in Ankara University student's population. *In Procedia - Social and Behavioral Sciences*, *2*, 1210-1213.
41. Gusevik Opshaug, E. A. (2013). *Life satisfaction in adolescence: A longitudinal study of associations with body image, negative emotionality, social support and life events*. Master of Philosophy in Psychology Health- and Social Psychology, Department of Psychology University of Oslo.
42. Haranin, E. C., Huebner, E. S., & Suldo, S. M. (2007). Predictive and incremental validity of global and domain-based adolescent life satisfaction reports. *Journal of Psychoeducational Assessment*, *25*(2), 127-138.
43. Hartley, M. T. (2012). Assessing and promoting resilience: An additional tool to address the increasing number of college students with psychological problems. *Journal of College Counseling*, *15*(1), 37-51.
44. Hill, R. (1949). *Families under stress*. New York: Harper and Row.
45. Holder, M. D. (2012). *Happiness in children*. Dordrecht, NL: Springer.
46. Hu, T., Zhang, D., & Wang, J. (2015). A meta-analysis of the trait resilience and mental health. *Personality and Individual Differences*, *76*, 18-27.
47. Huebner, E. S. (1994). Preliminary development and validation of a multidimensional life satisfaction scale for children. *Psychological Assessment*, *6*, 149-158.
48. Hui, T., & Ramzan, U. (2017). Relationship of Perceived Stress and Life Satisfaction among Medical Students: A Cross-sectional Study. *British Journal of Medicine and Medical Research*, *20*(10), 1-7.
49. Inquimbert, C., Tramini, P., Alsina, I., Valcarcel, J., & Giraudeau, N. (2017). Perceived stress among French dental students and their opinion about education curriculum and pedagogy. *Journal of International Society of Preventive and Community Dentistry*, *7*, 88- 92.
50. Johnson, D. C., Polusny, M. A., Erbes, C. R., King, D., King, L., Litz, B. T., & Southwick, S. M. (2011). Development and Initial Validation of the Response to Stressful Experiences Scale. *Military Medicine*, *176*(2), 161-169.
51. Kashdan, T.B., & Steger, M.F. (2007). Curiosity and pathways to well-being and meaning in life: Traits, states and everyday behaviors. *Motivation and Emotion*, *31*(3), 159-173.
52. Kwan, Y.-K. (2008). Life satisfaction and family structure among adolescents in Hong Kong. *Social Indicators Research*, *86*(1), 59-67.
53. Lee PS, Sohn JN, Lee YM, Park EY, Park JS (2005) A correlational study among perceived stress, anger expression, and depression in cancer patients. *Journal of Korean Academy of Nursing*, *35*, 195-205.
54. Levin, K. A., Dallago, L., & Currie, C. (2012). The Association between adolescent life Satisfaction, family structure, family affluence and gender differences in parent-child communication. *106*, 2, 287-305.
55. Liu, Y., Wang, Z. H., & Li, Z. G. (2012). Affective mediators of the influence of neuroticism and resilience on life satisfaction. *Personality and Individual Differences*, *52*, 833-838.
56. Liu, Y., Wang, Z., & Lü, W. (2013). Resilience and affect balance as mediators between trait emotional intelligence and life satisfaction. *Personality and Individual Differences*, *54*, 7, 850-855.
57. Liu, Y., Wang, Z., Zhou, C., & Li, T. (2014). Affect and self-esteem as mediators between trait resilience and psychological adjustment. *Personality and Individual Differences*, *66*, 92-97.
58. Lu, W., Bian, Q., Song, Y. Yan, Ren, J. Yi, Xu, X. Ying, & Zhao, M. (2015). Prevalence and related risk factors of anxiety and depression among Chinese college freshmen. *Journal of Huazhong University of Science and Technology - Medical Science*, *35*(6), 815-822.
59. Lu, W., Wang, Z., Liu, Y., & Zhang, H. (2014). Resilience as a mediator between extraversion, neuroticism and happiness, PA and NA. *Personality and Individual Differences*, *63*, 128-133.
60. Mak, W. W. S., Ng, I. S. W., & Wong, C. C. Y. (2011). Resilience: Enhancing well-being through the positive cognitive triad. *Journal of Counseling Psychology*, *58*(4), 610-617.
61. Martin, K., Huebner, E.S., & Valois, R.F. (2008). Does life satisfaction predict victimization experiences in adolescence? *Psychology in the Schools*, *45*, 705-714.
62. McCubbin, H.I., & Patterson, J.M. (1983). *The family stress process: The double ABCX model of adjustment and adaptation*. In H.L. McCubbin, M.B. Sussman, & J.M. Patterson (Eds.), *Social stress and the family: Advances and developments in family stress theory and research* (pp. 7-37). New York: Haworth Press.
63. McCubbin, M.A. & McCubbin, H.I. (1987). *Family stress theory and assessment*. In H.I. McCubbin & A.I. Thompson (Eds.), *Family assessment inventories for research and practice* (pp. 3- 32). Madison: The University of Wisconsin-Madison.
64. Nemati, S., & Mehdipour Maralani, F. (2016). The Relationship between Life Satisfaction and Happiness: The Mediating Role of Resiliency. *International Journal of Psychological Studies*, *8*(3), 194-201.
65. Olson, D. H., Gorall, D. M., & Tiesel, J. W. (2004). *Faces IV package*. Minneapolis, MN: Life Innovations.
66. Park, N., & Huebner, E. S. (2005). A Cross-cultural study of the levels and correlates of life satisfaction among

- adolescents. *Journal of Cross-Cultural Psychology*, 36, 444-456.
67. Pavot, W., & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological Assessment*, 5, 164-172.
 68. Pilcher, J.J. (1998). Affective and daily event predictors of life satisfaction in college students. *Social Indicators Research*, 43, 3, 291-306.
 69. Proctor, C. L. (2014). Child and Adolescent Life Satisfaction. Greydanus, D. E., Pratt, H. D. & Patel, D. R. (2013). *Health Promotion: Adolescent Well Being*. In: Michalos, A. (Ed.). *Encyclopedia of Quality of Life and Well-Being Research*. Springer, Dordrecht, Netherlands: Springer, pp 2735-2743. Print version ISBN 978-94-007-0752-8. Reference e-book ISBN 978-94-007-0753-5, DOI 10.1007/978-94-007-0753-5. (pp.663-672).
 70. Proctor, C.L., Linley, P. A., & Maltby, J. (2009). Youth life satisfaction: A review of the literature. *J. Happiness Stud*, 10, 583-630.
 71. Rani R., & Midha P. (2014). Does resilience enhance life satisfaction among teenagers? *Journal of Humanities and Social Science*, 19, 6, 16-21.
 72. Ryan, R. M., LaGuardia, J. G., & Rawsthorne, L. J. (2005). Self-complexity and the authenticity of self-aspects: Effects on well-being and resilience to stressful events. *North American Journal of Psychology*, 7, 431- 448.
 73. Ryff, C. D., & Singer, B. (2000). Interpersonal flourishing: A positive health agenda for the new millennium. *Personality and Social Psychology Review*, 4(1), 30-44.
 74. Saleh, D., Camart, N., & Romo, L. (2017). Predictors of stress in college students. *Frontiers in psychology*, 8, 19, 1-8.
 75. Schimmack, U., Radhakrishnan, P., Oishi, S., Dzokoto, V., Ahadi, S. (2002). Culture, personality, and subjective well-being: Integrating process models of life satisfaction. *Journal of Personality and Social Psychology*, 82, 582-593.
 76. Schmitter, A.C. (2003). Life satisfaction in centenarians residing in long-term care. <http://www.mmhc.com/articles/NHM9912/cutillo.html>. (20.07.2019).
 77. Singh, K., & Yu, X. (2010). Psychometric evaluation of the Connor-Davidson Resilience Scale (CD-RISC) in a Sample of Indian Students. *Journal of Psychology*, 1(1), 23-30.
 78. Smith, A. J. (2010). *Body image, eating disorders, and self-esteem problems during adolescence*. In M. H. Guindon (Ed.), *Self-esteem across the lifespan: Issues and interventions* (1st ed., pp. 125-141). New York: Routledge, Taylor & Francis Group.
 79. Stallman, H. M. (2010). Psychological distress in university students: A comparison with general population data. *Australian Psychologist*, 45, 4, 286-294.
 80. Sternberg, E.M., Chrousos, G. P., Wilder, R. L. & Gold, P. W. (1992) The stress response and the regulation of inflammatory disease. *Annals of Internal Medicine* 117, 854-866.
 81. Suldo, S. M., & Huebner, E. S. (2004). The role of life satisfaction in the relationship between authoritative parenting dimensions and adolescent problem behavior. *Social Indicators Research*, 66, 165-195.
 82. Tan Xin Hui & Umar Mohd Ramzan (2017). Relationship of perceived stress and life satisfaction among medical students: A Cross-sectional study. *British Journal of Medicine & Medical Research*, 20(10), 1-7.
 83. Thorsteinsen, K., & Vittersø, J. (2018). Striving for wellbeing: The different roles of hedonia and eudaimonia in goal pursuit and goal achievement. *International Journal of Wellbeing*, 8(2), 89-109.
 84. Tuzgol Dost, M. (2007). [Examining life satisfaction levels of university students in terms of some variables. Pamukkale Universitesi Egitim Fakultesi Dergisi- Pamukkale University Journal of Education, 22(2), 132-143.
 85. Vandentorren, S., Verret, C., Vignonde, M., & Maurice-Tison, S. (2005). Besoins d'information en santé des étudiants au service inter-universitaire de médecine préventive de Bordeaux [Determining students health information needs at the Service of Inter-university Preventative Medicine in Bordeaux]. *Sante Publique*. 17(1):47-56.