

## THE INFLUENCE OF MATERIALISM ON WELL-BEING AMONG THAI ADOLESCENTS

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**Abstract:** This investigation attempted to examine the influence of materialism on well-being, mediated by gratitude, anxiety, and depression among Thai adolescents. Operationally, well-being encompassed the factors of academic performance, social integration, and life satisfaction. Data were collected from 1,200 university students in the Bangkok area. A self-administered survey questionnaire in Thai was employed for data collection. The questionnaire consisted of the following: a researcher-constructed set of questions to elicit demographic information, the Material Values Scale (MVS) to measure materialism, the Gratitude Questionnaire-6 (GQ-6) to measure gratitude, the State-Trait Anxiety Inventory (STAI) to measure anxiety, the Center for Epidemiologic Studies Depression (CES-D) to measure depression, the Engaged Living in Youth Scale (ELYS) to measure social integration, and the Satisfaction With Life Scale (SWLS) to measure life satisfaction. The findings of Study 1 revealed that the Thai versions of the GQ-6 and the ELYS are psychometrically sound and, therefore, reliable and valid for use with Thai participants. Study 2 demonstrated the indirect negative influence of materialism on well-being, being mediated by gratitude, anxiety, and depression, nonsignificant correlation between materialism and gratitude, direct negative influence of materialism on well-being, and identified the full-direct model as the model that best explains the interrelationships among the core variables.

**Keywords:** Materialism, Gratitude, Anxiety, Depression, Well-Being, Thai Adolescents, Self-Determination Theory.

### Introduction

The drive toward globalization causes a change in the values of society and the current materialistic trend which provides significant value on material wealth in defining success, self-conception, and happiness rather than psychological well-being. Materialism is generally viewed as the value placed on the acquisition of material objects, dominated by the belief that money and consumer goods will bring happiness (Froh et al., 2010). Materialism often manifests itself as conspicuous consumption, which is commonly viewed as an undesirable value in society (Rindfleisch, Burroughs, & Denton, 1997). A number of studies and theories suggest that feelings of insecurity and exposure to media have been identified as common

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causes of materialism (Kasser et al., 2004). In Thailand, Wilailuk (2013) asserted that variations in materialistic values were better accounted for by societal factors such as economic and political changes which may have caused decrease in family cohesion and create an insecure place for children to grow up. This socialization process, in turn, is posited to be an important factor in the adoption of materialistic values to become prevalent among Thai people, especially among adolescents (Jewpattanakul et al., 2013).

When materialistic values become essential to a person's value system, personal well-being decreases because it is likely that experiences supporting basic psychological needs will decrease and thus these needs will go unmet (Kasser et al. 2004; Kasser and Ryan 1993, 1996). A number of past research have found that mat and well-being are negatively correlated and recent researchers have begun to explore the internal dynamics between materialism and well-being. In Thailand, there are very few studies about the relations between materialism and well-being. This situation does not match the demand of the studies of materialism in Thailand. Based on the studies of Western and Thai materialism, there are great different in culture, lifestyle and individual values between Western and Thai, and we cannot make sure that the results of Western studies are appropriate for the people in Thailand. Thus, the studies of the relationship between materialism and well-being are very necessary in Thai people.

In view of Western studies, we have found that gratitude may play the role of mediator bet material and well-being. Gratitude is a character strength that recently have scientific researchers begun to systematically explore and study it (Peterson & Seligman, 2004). Gratitude seems to have an opposite effect on personal well-being, partly because it helps people fulfill the basic psychological needs of competence, autonomy, and relatedness (Kneezel & Emmons, 2006). In order to obtain the early information about mat and well-being in Thai population, this study will further expand this research. And because nowadays many issues and problems in Thailand are caused by the rise of materialism, and the attention to youth's well-being are becoming the concerns among parents, educators and government.

### **Objectives**

The principal aim of the current study was to examine the direct and indirect influences of materialism on the well-being of Thai adolescents. In the process, it attempted to explore the relationships among seven latent variables (materialism, gratitude, anxiety, depression, academic performance, social integration, and life satisfaction). This study also involved the translation of certain standardized instruments, particularly the Gratitude Questionnaire-Six Item Form (GQ-6) and the Engaged Living in Youth Scale (ELYS) for use with Thai participants.

### **Literature Review**

The theoretical frameworks and empirical studies indicated some relationship among seven variables, which are materialism, gratitude, anxiety, depression, academic performance, social integration and life satisfaction.

### *Materialism*

Materialism represents “a mind-set or constellation of attitudes regarding the relative importance of acquisition and possession of objects in one’s life” (Richins & Dawson, 1992, p. 307). For materialists, possessions and their acquisition are at the forefront of personal goals that dictate their way of life. Thus, advocates of materialism value possessions and their acquisition more highly than most other matters and activities in life.

### *Gratitude*

Gratitude refers to a value orientation that combines appreciating others, feeling of abundance, and taking joy in life’s simple pleasures (Watkins, Woodward, Stone, & Kolts, 2003). Alternatively, gratitude refers to an emotional response that reflects recognition and appreciation of an altruistic gift. It acts more on appreciating and savoring what one already has (McCullough, Emmons, & Tsang, 2002).

### *Anxiety*

Anxiety is a vague, unpleasant emotional state with traits of fear, nervousness, distress, and uneasiness. It is a variety of effective, motor, or physiological responses to the nonspecific perceptions of danger by the human organism (Kaplan & Sadock, 1991). Furthermore, anxiety refers to a state of worry or apprehensive expectation about a number of future events or activities and introduced as the hallmark feature of generalized anxiety disorder (GAD) in the DSM-III-R. It is a negative emotional state that increases uneasiness, worry, or fear (Rachman, 2013).

### *Depression*

Depression, as defined by the World Health Organization (WHO), is a mental health disorder characterized by sadness, loss of interest or pleasure, feelings of guilt and low self-esteem, disturbed sleep or appetite, low energy, and poor concentration. It is a mood disorder that interferes with normal life functioning.

### *Well-being*

Well-being is essentially a subjective construct, and people appear to derive an assessment of their own well-being using both external (social and environmental) as well as internal (personal) indicators (Hutchinson et al., 2004). On the other hand, Keyes (1998) described the concept of social well-being as an achievement facilitated by *educational attainment* and age, but also affected by *social integration* and acceptance. Since life experience is an integral part of well-being (Ryff & Heidrich, 1997), the interpretation of these experiences in terms of the degree of satisfaction with life must also be important. *Life satisfaction* may be one index of psychosocial well-being, but the psychological is bound to inform the social and vice-versa. In light of the aforementioned descriptions of well-being, the current researcher deemed it appropriate to operationally use the term ‘well-being’ to encompass the selected factors of academic performance, social integration, and life satisfaction.

### *Academic Performance*

Academic performance generally refers to how students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers. In

this study, academic performance was measured by means of the *grade point average* (GPA).

### *Social integration*

Social integration refers to the drive to connect with others and achieve a sense of belonging within a social group (Froh et al., 2010). It includes the aspects of connectedness, prosocial behavior, and positive interactions. It suggests the experience of family togetherness (Flouri, 2004). Social integration also refers to individuals' inclination to connect to and help others in their neighborhood and community (Froh et al., 2010).

### *Life satisfaction*

Life satisfaction, sometimes called 'perceived quality of life' may be defined as "a global evaluation by the person of the quality of his or her life" (Pavot, Diener, Colvin, & Sandvik, 1991, p. 150). Life satisfaction also refers to the cognitive-judgmental aspects of general life satisfaction. The way people perceive their life is often a key component of well-being (Gilman & Huebner, 2006). It includes satisfaction with family life, friendships, school experience, self, and living environment.

## **Methodology**

### *Participants*

The sample consisted of 1,200 participants (male: n=498, 41.5%; female: n=702, 58.5%). Their ages ranged from 17 to 25 years, with a mean age of 20.23 years, were obtained through convenience sampling from six universities in Bangkok. The majority of the participants identified themselves as Thai (n=1,193; 99.4%). In terms of their education level, the participants were more or less evenly distributed across the four years of their Undergraduate studies (1st year: n=383, 31.9%; 2nd year: n=312, 26%; 3rd year: n=246, 20.5%; 4th year: n=259, 21.6%).

### *Instruments*

The researcher uses a self-administered survey questionnaire with Likert-type rating for data gathering. The questionnaire consists of two parts: personal information and six psychometric scales included: 1) Material Values Scale (MVS; Richin 2004) 2) Gratitude Questionnaire-6 (GQ-6; McCullough et al. 2002) 3) State-Trait Anxiety Inventory (STAI Form Y; Spielberger 1983) 4) Center for Epidemiologic Studies Depression (CES-D; Lenore Radloff 1977) 5) Engaged Living in Youth Scale (ELYS; Jeffrey J. Froh et al. 2010) 6) Satisfaction with Life Scale (SWLS; Edward F. Diener 1985).

### *Procedure*

The researcher had contacted 6 universities in Bangkok and received permission for data collection process. The first step of data gathering was to explain the research objectives and consent form. Therefore, this research includes only volunteer participants, while they also have the right to stop at any time if they feel

uncomfortable. Besides the university campus, the researcher also conducted a data gathering off-campus area such as department store, public park, public library, or and weekend market with the same procedure.

Study 1 aims to investigate the psychometric properties of the Thai-translated versions of the Gratitude Questionnaire-Six Item Form (GQ-6) and the Engaged Living in Youth Scale (ELYS).

Study 2 aims to investigate (i) the direct and indirect causal relationships, being mediated by the factors of gratitude, anxiety, and depression between materialism and the criterion variables of academic performance, social integration, and life satisfaction among Thai adolescents, and (ii) which prediction model (the indirect or the full-direct model) best explains the pattern of structural relationships hypothesized between materialism and well-being among Thai adolescents.

## Results

### *Pretest*

Prior to the actual study, a pretest of the Thai version of the study's questionnaire was conducted to check for errors and for readability. A total of 30 participants aged between 18 and 20 years from six local universities were invited to fill in the Thai version and were requested to report any errors and/or difficulties in the readability of the questionnaire items. Upon verifying that the questionnaire was free from errors and comprehension problems, the researcher proceeded to conduct the actual study.

Study 1: the psychometric properties of the Thai-translated versions of the GQ-6 and the ELYS.

As the GQ-6 and the ELYS were translated into the Thai language, it was necessary to investigate their psychometric properties in order to ensure both their cross-cultural reliability and construct validity prior to their use in the present study. This involved the following steps.

#### *Step 1: Reliability analysis.*

Examination of the Cronbach's alphas for the GQ-6 and the ELYS and their items' I-T correlations showed that two items from the GQ-6 scale (g3: When I look at the world, I don't see much to be grateful for; g6: Long amounts of time can go by before I feel grateful to something or someone) have very low corrected item-total correlations and were deleted from the scale. Thus, the factor of 'gratitude' is represented by 4 items (item-total correlation range: .66 - .70). For the social integration scale (ELYS), all 15 items showed acceptable item-total correlations and were retained (item-total correlation range: .43 - .71). The computed Cronbach's alpha coefficients for the GQ-6 and the ELYS were .84 to .91, respectively.

#### *Step 2: Confirmatory factor analysis (CFA).*

Confirmatory factor analysis was carried out to evaluate the factor structures of the GQ-6 and the ELYS. CFA, unlike exploratory factor analysis, allows the researcher to explicitly posit an a priori model (e.g., on the basis of the factors identified in the western-based original scale) and to assess the fit of this model to the observed data. After ensuring that the collected data set meets the assumptions underlying CFA, the goodness-of-fit test (via structural equation modeling) was

employed to test the null hypothesis that the sample covariance matrix for each of the two models was obtained from a population that has the proposed model structure. Table 1 presents the goodness-of-fit indices for these two models.

**Table 1:  $\chi^2$  Goodness-of-Fit value, Normed Fit Index (NFI), Incremental Fit Index (IFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA)**

Model	$\chi^2$ ( $N=1200$ )	$df$	$p$	NFI	IFI	TLI	CFI	RMSEA
<b>GQ-6</b>								
Null Model	2086.29	6	<.001	0.00	0.00	0.00	0.00	0.54
GQ-6 model	3.31	1	>.050	0.99	0.99	0.99	0.99	0.04
<b>ELYS</b>								
Null Model	8909.28	105	<.001	0.00	0.00	0.00	0.00	0.26
ELYS model	1463.62	87	<.001	0.84	0.84	0.81	0.84	0.11

The chi-square goodness-of-fit value for the GQ-6 model is not statistically significant ( $p>.05$ ), suggesting that the co-variance matrix for the posited single-factor model fits the sample co-variance matrix well. The incremental fit indices (Normed Fit Index – NFI, Incremental Fit Index – IFI, Tucker-Lewis Index – TLI, Comparative Fit Index – CFI) are all above 0.90. These fit indices indicated that the GQ-6 model provided a very good fit relative to its null or independence model (i.e., the posited model represented over 90% improvement in fit over its null or independence model), and support the hypothesized structure of the posited GQ-6 model. The RMSEA value of 0.04 is within the range suggested by Browne and Cudeck (1993) and indicates that the model fits the population covariance matrix well.

The chi-square goodness-of-fit value for the ELYS model is statistically significant ( $p<.05$ ) suggesting that the co-variance matrix for this posited single-factor model does not fit the sample co-variance matrix well. Nevertheless, the incremental fit indices (Normed Fit Index – NFI, Incremental Fit Index – IFI, Tucker-Lewis Index – TLI, Comparative Fit Index – CFI) are all above 0.80 (range: 0.81 – 0.84). These fit indices indicated that the ELYS model provided adequate to good fit relative to its null or independence model (i.e., the posited model represented between 81% to 84% improvement in fit over its null or independence model), and support the hypothesized structure of the posited ELYS model. The RMSEA value of 0.11 suggests some error of approximation when compared to the population co-variance matrix.

While the above fit indices can be used to evaluate the adequacy of fit in CFA, it must be noted that this is only one aspect of model evaluation. As pointed out by Marsh and his colleagues (e.g., Marsh, 1996; Marsh & Balla, 1994; Marsh, Hau, & Wen, 2004), model evaluation should be based on a subjective combination of substantive or theoretical issues, inspection of parameter estimates, goodness-of-fit, and interpretability. Table 2 presents the standardized regression weights, residuals, and explained variances for the two models.

**Table 2: Standardized Regression Weights, Explained Variances, and Residual Variances for the GQ-6 and ELYS Indicator Variables**

Parameter	Standardised Regression Weights	Explained Variances	Residual Variances
<u>GQ-6</u>			
g1 <--- GQ-6	.86	.74	.26
g2 <--- GQ-6	.80	.64	.36
g4 <--- GQ-6	.64	.41	.59
g5 <--- GQ-6	.62	.38	.62
<u>ELYS</u>			
e1 <--- ELYS	.45	.18	.82
e2 <--- ELYS	.62	.38	.62
e3 <--- ELYS	.62	.38	.62
e4 <--- ELYS	.70	.49	.51
e5 <--- ELYS	.56	.31	.69
e6 <--- ELYS	.69	.48	.52
e7 <--- ELYS	.53	.28	.72
e8 <--- ELYS	.70	.49	.51
e9 <--- ELYS	.62	.38	.62
e10 <--- ELYS	.74	.55	.45
e11 <--- ELYS	.69	.38	.62
e12 <--- ELYS	.61	.37	.63
e13 <--- ELYS	.61	.37	.63
e14 <--- ELYS	.73	.53	.47
e15 <--- ELYS	.69	.48	.52

The standardized regression coefficients (factor loadings) for the measurement indicators are all positive and significant by the critical ratio test,  $p < .001$ . Standardized loadings ranged from 0.45 to 0.86 ( $M = 0.66$ ). These values indicated that the indicator variables hypothesized to represent their respective latent GQ-6 and ELYS constructs did so in a reliable manner. The percentage of residual (unexplained) variances for the 19 indicator variables ranged from 26% (i.e., 74% of the variance explained) (g1) to 82% (i.e. 18% of the variance explained) (e1).

The result of confirmatory factor analysis confirmed and further clarified the adequacy of the factor structures in representing attitudes toward gratitude (GQ-6) and social integration (ELYS). Tests of both convergent and criterion-related validity showed that the GQ-6 and the ELYS are valid by these two criteria. Together, these findings point to the sound psychometric properties of the Thai-translated versions of the GQ-6 and the ELYS, and support their use within the Thai context.

Study 2: (i) the direct and indirect causal relationships, being mediated by the factors of gratitude, anxiety, and depression, between materialism and the criterion variables of academic performance, social integration, and life satisfaction among Thai adolescents, and (ii) which prediction model (the indirect or the full-direct model)

best explains the pattern of structural relationships hypothesized between materialism and well-being among Thai adolescents.

#### *Path analysis*

Two hierarchical models (Indirect Model and Full-direct Model ) were posited and were evaluated and compared as to their efficacy in explaining the influence of the identified antecedent factor of materialism on the participants' levels of social integration, academic performance, and life satisfaction, both directly and indirectly, being mediated by the factors of gratitude, depression, and anxiety. Evaluation and comparison of the 'fit' of these two 'nested' models were conducted systematically.

The fit of the indirect path model posited to represent the indirect structural relationships between materialism and the three criterion variables of social integration, academic performance, and life satisfaction, being mediated by the three factors of gratitude, depression, and anxiety was tested via structural equation modeling. Although the overall chi-square goodness-of-fit value was significant,  $c^2 (df=196)=1002.125, p<.01$ , the incremental fit indices (NFI, IFI, TLI, CFI) are all above 0.90 (range: 0.91 – 0.94). These fit indices indicated that the model provided a very good fit relative to a null or independence model (i.e., the posited model represented between 91% to 94% improvement in fit over the null or independence model), and support the hypothesized structure of the posited indirect path model. The RMSEA value of 0.059 is also within the range suggested by Browne and Cudeck (1993) and indicates that the model fits the population covariance matrix well. The model also yielded an Akaike Information Criterion (AIC) value of 1160.125. The AIC (Akaike, 1987) is used for comparing the goodness-of-fit of competing models. Figure 8 presents the indirect model together with the significant standardized regression coefficients ( $p<.05$ ).

The fit of the full direct path model was tested via structural equation modeling. Although the overall chi-square goodness-of-fit value was significant,  $c^2 (df=193)=980.244, p<.01$ , the incremental fit indices (NFI, IFI, TLI, CFI) are all above 0.90 (range: 0.91 – 0.94). These fit indices indicated that the model provided a very good fit relative to a null or independence model (i.e. the posited model represented between 91% to 94% improvement in fit over the null or independence model), and support the hypothesized structure of the posited indirect path model. The RMSEA value of 0.059 is also within the range suggested by Browne and Cudeck (1993) and indicates that the model fits the population covariance matrix well. The model also yielded an Akaike Information Criterion (AIC) value of 1144.244. The AIC is used for comparing the goodness-of-fit of competing models. Figure 9 presents the full-direct model together with the significant standardized regression coefficients ( $p<.05$ ).

For the two hierarchical models, the indirect model is 'nested' within the full direct model. Furthermore, both models are based on the same sample and the same covariance matrix generated from the same measurement variables. Thus, with different degrees of freedom, direct comparison of the goodness-of-fit these two models is possible. Table 3 presents the goodness-of-fit indices as well as the comparison fit indices for these two models.



**Table 3: Chi-square Goodness-of-fit Values, Incremental Fit indices (NFI, IFI, TLI, and CFI), Akaike Information Criterion (AIC), Parsimony Normed Fit Index (PNFI), and Model Comparison**

Model	$\chi^2$ (N=1179)	df	p	NFI	IFI	TLI	CFI	AIC
Model 1								
Indirect model	1002.125	196	<.010	0.93	0.94	0.93	0.94	1160.125
Model 2								
Full indirect Model	980.244	193	<.010	0.93	0.94	0.93	0.94	1144.244
<i>Model comparison</i>								
Model 1 vs. Model 2	21.881	3	<.001					

While the results showed that both models fitted the data very well, relative to the null model, direct model comparison indicated that the direct-full model fitted the data significantly better than the indirect model,  $c^2(df=3) = 21.881$ ,  $p < .001$ . This comparison result suggests that the proposed full-direct model may provide a better representation than the indirect model of the way the participants' materialism influenced their levels of academic performance, social integration, and life satisfaction, both *directly* and *indirectly*, being mediated by their levels of gratitude, anxiety, and depression. The goodness-of-fit of competing models can also be compared by means of the Akaike Information Criterion (AIC) measure (Akaike, 1987). In evaluating hypothesized models, the AIC takes into account both model parsimony and model fit. Simple models that fit well receive low scores, whereas poorly fitting models get high scores. A small AIC generally occurs when small chi-square values are achieved with fewer estimated coefficients. This shows not only a good fit of observed versus predicted co-variances but also a model not prone to "over fitting" (Jöreskog, 1993). Comparing the AIC measure for the two hierarchical models, it is evident that the full direct model provided a lower AIC value (1144.244) than the indirect model (1160.125). These parsimony fit indices indicate that the full-direct model is both more parsimonious and better fitting than the indirect model. The standardized residual for each endogenous variable in the full direct model. These coefficients provide an estimate of the proportion of variance in each endogenous variable not predicted by the model. Alternatively, subtracting these values from 1.00 indicates the proportion of variance predicted by the model. These coefficients indicated that the posited materialism model accounted for 42.2%, 38%, and 4.2% of the variances in the participants' reported levels of social integration (57.8% unexplained/residual variance), life satisfaction (62% unexplained/residual variance), and academic performance (95.8% unexplained/residual variance), respectively.

Therefore, evaluation and comparison of the 'fit' of these two 'nested' models were conducted systematically. While the results from the multi-model path analysis showed that both models fitted the data set well, direct comparison of their goodness-of-fit indices clearly showed that the full-direct path model is both significantly better fitting and more parsimonious than the indirect path model. In other words, a path model that incorporates the hypothesized direct and indirect influences of materialism is a better representation of the cognitive processes affecting the participants' overall well-being (academic performance, social integration, life satisfaction) than a model that incorporates only the indirect influences.

## Discussion

Result demonstrated that the direct negative influence of materialism on well-being among Thai adolescents such that the higher the level of Thai adolescents' materialism, the lower the level of their general well-being in terms of social integration but not GPA or life satisfaction. Therefore, the full-direct model successfully incorporated the materialism variable that has direct negative impact on the level of social integration among Thai adolescents whereas the indirect model did not. This suggests that the full direct model represents a better explanatory model than the indirect model.

This current finding is in accord with past findings that showed a negative association between materialism and social integration. As mentioned earlier by self-determination theory, satisfying basic self-determination needs increases autonomous motivation which encourages individuals to act with volition and endorsement. In contrast, forces like materialism thwart these basic needs, leading to 'amotivation' (lack of intentionality) or externally controlled motivation whereby individuals are compelled by others to do things or behave in a particular manner (Deci & Ryan, 2012).

Emmons and Mishra (2011) posited that materialistic individuals tend to be less concerned about the welfare of others, less empathic, less satisfied with family life, and generally less socially integrated. Social integration is poorer among materialistic youth, and this lack of social integration also spans across a number of social realms, including family and community (Froh et al., 2010). Materialism also increases the likelihood of being socially isolated and lonely, or having conflict-ridden social interactions (Bono & Polak, 2007), both of which are likely to further diminish social skills.

However, this study found no significant correlation between materialism and gratitude. This is not supported by studies that reported a negative relationship between materialism and gratitude which suggests that when the level of materialism is high, the level of gratitude is low. However, having a nonsignificant result in the present study does not mean that it is not important to know the relationship between materialism and gratitude (Crawley, 2005). According to the contradiction of value systems in Thai culture, the result may show no correlation between materialism and gratitude among Thai adolescents. As mentioned in Thai Travel (2003), nowadays, development and technology in the modern world has somehow changed the traditional lifestyle of Thai people, especially in big cities like Bangkok. In the 21st century, Thai youth still adopt Buddhist teaching on simplicity, moderation and gratitude to lead their way of life, yet, they also have been encouraged since early childhood to fulfill their material needs.

Regarding to the current study, we also found that grateful Thai adolescents attained a higher GPA, were more socially integrated, and were higher in absorption and life satisfaction. In addition, the relation between gratitude and the three criterion variables of well-being was stronger than that of materialism with these outcomes. This finding is consistent with previous research that emphasized the significant impact of gratitude on well-being in adolescents.

Part of the reason why people who pursue intrinsic goals report greater well-being than those who pursue extrinsic or materialistic goals (Kasser and Ryan, 1996)

is because those who feel grateful are more likely to provide emotional support or other assistance to those in need, which likely increases social integration. Moreover, those who tend to be grateful are also less likely to be socially isolated and lonely or to be involved in frequent social conflicts. Overall, gratitude appears to help individuals fulfill their psychological need to establish community ties and engage in volunteering activities. The results also revealed that there is a positive relationship between gratitude and life satisfaction. This relationship reflects that the higher the participants' perceived gratitude, the higher their reported level of life satisfaction. This finding confirms relevant theoretical perspectives and empirical evidence which indicates that people with intrinsic goals have stronger positive connection and satisfaction with family life, friendships, school/work experience, self, and living environment (Emmons and McCullough, 2003).

Nevertheless, the results also revealed the indirect association between gratitude on well-being, being mediated by anxiety. More specifically, gratitude was found to be positively associated with anxiety and, subsequently, positively associated with social integration and life satisfaction. In other words, the higher the level of gratitude reported by the participants, the higher their reported level of anxiety and, subsequently, the higher their reported levels of social integration and life satisfaction. This finding is not in agreement with that obtained in a previous study which reported a negative association between gratitude and anxiety (Emmons & McCullough, 2003). It is not generally expected that individuals with a high level of gratitude would have an equally high level of anxiety that may point to different cultural priorities.

Regarding cultural differences, Komin (1991) explained that relationships are very important in Thai culture. In general, most Thais advocate sincere and deep reciprocal relationships referred to as '*Bunghun*' (indebted goodness). This perception is based on the value of gratitude and a psychological bond between someone who, out of sheer kindness and sincerity, render another person much needed help and favor, and the latter's remembering of the goodness done and his ever-readiness to reciprocate the kindness.

Thus, it is very important in the Thai values list, but does not emerge on the American values list. This clearly suggests that the understanding of gratitude in the two cultures has a basic difference. This value orientation is characterized by Thais placing high regard for the grateful quality in a person, which also occurs among most Asians and collectivistic cultures as well. On the other hand, being too concerned about others can cause stress and, subsequently, lead to social anxiety. For example, some adolescents may be too concerned with what other people think or say about them, and in order to deal with social pressure, they may seek internal support, particularly from their friends or groups, and not from external support such as one's culture (Taylor et al., 2004). Consequently, the more they feel anxious, the more they get together with their group mates and rely on their companionship such as family and peers. It should be noted that Asian people generally avoid conflict and emphasize the group's norm or interpersonal relation values, which mostly promote harmony and happiness in the society.

Overall, gratitude appears to help individuals fulfill their psychological needs in establishing community ties and close family bonds (Froh et al., 2011). Generally,

prosocial behavior is an important characteristic that helps people improve relationships with others and increase social connectedness (Emmons, 2009). Thus, it can be inferred from all the aforementioned that grateful adolescents are more likely to develop social skills that may reduce feelings of worthlessness, hopelessness, and helplessness which lead to depression. Emmons and McCullough (2003) found that increasing gratitude among adolescents also helps to elevate scores in many measures of life satisfaction, including feelings of good health, optimism about the future and, generally, positive attitudes about life. Similarly, Adler and Fagley (2005) proposed that those who appreciate what they have and are, therefore, grateful, are more inclined to report greater life satisfaction.

### **Limitations and Recommendations**

There are procedural limitations that should be noted and which suggest caution when interpreting the present findings. First, the present study used only the scale of GQ-6 to measure gratitude among Thai youth. Future researchers might consider using other linguistically simplified versions of gratitude measures such as the Gratitude Adjective Checklist (GAC) and the Gratitude, Resentment, Appreciation Test (GRAT) together with the GQ-6 among Thai children and adolescents. Another approach would be to develop a new Thai-based gratitude scale specifically for use with Thai participants. It is imperative that researchers build a solid and reliable empirical foundation to generate future studies. This pursuit will be compromised if the gratitude scale used inappropriately influences the outcomes. For example, one study found that gratitude was unrelated to negative affect (NA). But had the researchers used a more appropriate scale to measure gratitude, they may have found a negative correlation between gratitude and NA. Thus, it is recommended that more appropriate measures be used in future studies in order to achieve more definitive conclusions. A second limitation is this study utilized a self-report measure which required the participants to recall and rate their perceptions (e.g., parental income, consumer behaviors, emotive states, psychological well-being, and academic performance). Such retrospective style of responding forces the participants to rely on their memory when responding to the study's questionnaire items. Reliance on memory per se is clearly subjected to memory errors/lapses which can adversely affect the accuracy of the participants' true feelings/responses. Future research should use multiple methods, including behavioral, physiological, and informant data to decrease the shared method variance. For example, future researchers should also consider a qualitative approach that employs in-depth interviewing techniques that enable the researcher to explore the richness, depth, and complexity of phenomena. Another important point is that this study was conducted in Thailand while most of the related studies were conducted in Western countries. Cultural differences may possibly explain different outcomes. This researcher acknowledges the lack of Thai-based theoretical perspectives and related studies. Discussion relied heavily on Western perspectives and studies which may not necessarily reflect Thai culture and values. Future research may consider taking the comparative approach involving both Western and Thai participants with a view to examining cultural differences. Finally, the findings of the current study should be interpreted with some caution because of the aforementioned intervening or limiting factors that go beyond the scope of this

study. Nonetheless, despite some identified limitations, it is anticipated that this study would provide valuable knowledge and data for a number of individuals and groups who are interested in the direct and indirect impacts of materialism on well-being, being mediated by gratitude, anxiety, and depression. The contribution of this study towards expansion of the literature cannot be overemphasized.

With regard to the influences of materialism on well-being among Thai adolescents, it can be concluded that the more materialistic they are, the lower is their state of well-being, causing adverse effects on their academic performance, social integration, and life satisfaction. This present study provided some important insights toward the understanding of the present generation of young Thais who rely heavily on materialism which has seemingly increased exponentially over the past decade. Of particular interest is the realization of the role of gratitude in people's lives; that happiness is not contingent upon the glitter of materialism but rather from being embedded in caring networks of giving and receiving. It can also be concluded that being materialistic or being preoccupied with the pursuit of money, wealth, and material possessions arguably fails as a strategy to increase pleasure and meaning in life. Materialism causes the denigration of relationships partly by fostering the view that people are objects and things to be used for one's benefit (Kasser, 2002). It is interesting to note that if heightened materialism in today's youth continues to show links to poor school performance, decreased social integration, and unhappiness, then, this will undoubtedly elevate public concern. Thus, material affluence is better reduced through promotion of meaningful intrinsic values. In addition, Thai adolescents should learn to control their attachment to material possessions in such a way that they do not abandon their intrinsic values. Methods and messages encouraging intrinsic values must become a priority for psychologists, parents, teachers, and Thai government; these should be promoted early on among young people in order to help them reverse their materialistic leanings while they are still in their formative years.

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