

Modelling Positive Development, Life Satisfaction and Problem Behaviour among Youths in Malaysia

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Abstract: The main purpose of this paper is to examine the relationships among positive development, life satisfaction and problem behaviour. Promoting positive development influences youths to achieve life satisfaction and refrain them from becoming involved in problem behaviour activities. Data was collected amongst youth participating in the youth programmes organized by the Ministry of Youth and Sport at five different locations. The selection of respondents was performed using area and systematic sampling technique. The data was collected using self-administered questionnaires comprising items to measure constructs in the study on a 10-point agreement and disagreement scale. Positive youth development was measured using items developed by Shek *et al.* [1] and life satisfaction was measured using Satisfaction With Life Scale (SWLS) developed by Diener *et al.* [2]. The items to measure problem behaviour were adapted from [3]. The final part of the questionnaire contained items pertaining to respondent's demographic characteristics. The data was analysed using Structural Equation Modelling (SEM). The findings of the study suggested that positive youth development was manifested by self-determination, bonding, pro-social norms and social competence. Problem behaviour was measured by substance abuse and intention to engage in problem behaviour. Moreover, the findings of the study supported the proposed hypothesis that positive development has positive relationship with life satisfaction and life satisfaction has negative relationship with problem behaviour. The findings also suggested that youths with higher level of positive development are more satisfied with life.

Key words: Structural Equation Modelling • Positive Development • Life Satisfaction • Problem Behaviour

INTRODUCTION

Youths are perceived to be an important resource and should be developed [4] to ensure the nation's sustainable continuous development and growth. Malaysia aspires to become a fully-developed nation by the year 2020. In order to achieve this vision, the nation has to tap its youth potential to inherit the country's prosperity and continue the legacy of nation-building. The role of youths in developing the country cannot be under-estimated and should be included in the nation-development agenda. They are energetic and full of enthusiasm which requires guidance and should be

developed to become resourceful potentials for national development [5]. Promoting positive development influences youths to achieve life satisfaction and prevent them from becoming involved in problem behaviour activities. Positive youth development initiatives are deemed necessary to support the nation's aspiration for healthy, happy and competent youths. Problem behaviours lead to losses in youth productivity. Thus, promoting positive development among the youth should be undertaken to steer them into thriving and making positive contribution to self, family, community and civil society. Life satisfaction is the subjective measure of quality of life referring to individuals' internal judgement

of their overall lives and/or specific life domains. Sun and Shek [6] suggests that life satisfaction is negatively correlated with problem behaviours. Moreover, problem behavioural incidents amongst youth do not contribute positively to community and civil society well-being and is associated with life dissatisfaction.

Dzuhailmi *et al.* [7] suggested that nowadays most of the social problems happening in Malaysia involved youth. In addition, problem behaviour among youth, especially substance and drug abuse, has been observed to be on an increasing trend [8] and of great concern to the nation. Usually, the problem of substance and drug abuse lead to other problem behaviours such as engagement in outlawed sexual behaviour, rape, murder, robbery, aggravated assault, theft, serious motor vehicle offences and suicide attempts [9]. Incidents of drug addiction are serious among youth. According to *Laporan Dadah Bulan Oktober 2013*, youth appears to be the group that is most exposed to drug addiction. Statistics indicated that, out of 6367 drug addicts in January to October 2013, 69.22% were among youth. Moreover, those who were involved with drugs were between the ages of 19 to 39 which is the most productive age.

Youth is categorised as individuals aged between 15 - 40 years old [10] and positively influences nation formation politically, socially and economically [11]. This study was conducted among Malay youth because in Malaysia it was reported that incident of substance abuse is high among Malay youth [12]. Dzuhaulmi *et al.* [7] reported that another issue of great concern is the issue of future nation leadership among Malay youth, because they did not undertake the responsibility to register as voters. They are described as living in their 'comfort zone' enjoying the country's affluence after independence. Unproductive youth does not contribute to nation building but particularly it is also a loss to oneself. Youths intervention programmes are required to reduce health, social, economical and political problems that are related to the addictions of substance and drug abuse [13]. There is an urge to uncover the contributing factors that could address problem behaviour among Malay youth to ensure that youth development would be planned based on high- impact, in addition to systematic, implementation. This study postulates that the different aspects of positive youth development have positive impact on youth life satisfaction which will in turn reduce incidents of problem or antisocial behaviour amongst Malay youth. Thus, the main aims of this study are (i) to

determine the effects of different aspects of positive youth development on life satisfaction and (ii) to ascertain the effect of life satisfaction on problem behaviour.

Literature Review: Positive Youth Development: Positive youth development is a complex multi-dimensional construct which is measured through fifteen inter-related constructs [14]: bonding, social competency, emotional competency, cognitive competency, behavioural competency, moral competency, self-efficacy, pro-social norms, resilience, self-determination, spirituality, clear and positive identity, beliefs in the future, pro-social involvement and recognition of positive behaviour. Positive youth development initiative is associated with promoting the healthy development of youth through intervention programmes or strategies directed at not only preventing the undesirable behaviours but also encouraging desirable outcomes [15]. One of the desirable outcomes could be life satisfaction since Sun and Shek [16] propose that positive youth development is positively related with life satisfaction. Moreover, Lerner, *et al.* [15] suggest that promoting positive development among youth will lead them to thrive and make positive contribution to self, family, community and civil society. Specifically, positive youth development is found to be negatively related to problem behaviour [16].

Life Satisfaction: Life satisfaction is a conscious cognitive judgement of one's life in which criteria for judgement are up to the person [17] and it is a cognitive-judgemental process of one's life as a whole [18]. It does not refer to the affective state (emotion), where emotion refers to specific on-line reactions to specific events that occur in people's life, such as anger, joy, anxiety [19]. Moreover, Rice [20] described global life satisfaction as the degree to which an individual's life experience satisfies the individual's needs and wants in different life domains, for example as an employee, parent, spouse and friend. Life satisfaction is not only a by-product of a particular life experience but it also in turn influences behaviours [20] and it is demonstrated to be negatively associated with adolescent problem behaviour as described in studies by Valois *et al.* [21], Valois *et al.* [22] and Valois *et al.* [23]. The recent work of Proctor *et al.* [24] also demonstrated that those with high life satisfaction were reported to be not participating in adolescent problem behaviour.

Problem Behaviour: Incidents of problem _behavior

reflect negative connotations and do not contribute positively to community and civil society well-being. Behaviours such as engagement in outlawed sexual behaviour, substance abuse, delinquency and suicide attempts are defined as latent construct for adolescent problem behaviour and it is associated with life dissatisfaction [25, 26]. Far-reaching possible support should be given to address problem behaviour among youth as it was reported as increasing dramatically during adolescence compared to during childhood [27]. In addition, it is described to be contagious by Lorion *et al.* [28] where the presence of one will increase the likelihood of another to increase. Thus, it is postulated that youths' potential to develop will be hampered when they are involved in problem behaviour. It becomes a burden to the community and a loss to the nation especially in nation building. Therefore, prevention and intervention programmes or strategies should be systematically formulated and implemented at the earliest sign of problem behaviour happening.

MATERIALS AND METHODS

Data was collected amongst those Malay youth who participated in the youth programme organised by the Malaysia Ministry of Youth and Sport in 2012. The selection of respondents involved two steps. The first step involved using area sampling technique. Five states representing north (Kedah), south (Johor), east (Terengganu), west (Negeri Sembilan) and central region (Putra Jaya) of Peninsular Malaysia were selected. Second, systematic sampling technique was employed to select respondents at each location where every 10th intercepted respondent was selected after an initial random starting point. A total of 750 questionnaires were distributed, with 150 at each location. However, after a data-cleaning process, only 484 samples (65%) were subjected for further analyses. During the data collection, respondents will be informed of the purpose of the study and the confidentiality of the data collected will be emphasised to all respondents. Instructions pertaining to responding to the questionnaire were provided to the respondents. The respondents filled up the questionnaires at their convenience and returned them back to the enumerator. This study used a self-administered questionnaire containing items measuring positive youth development, life satisfaction, problem behaviour and demographic characteristics of the respondent.

The research instrument developed by Shek *et al.*

[1] was used in this study to measure positive youth development. This instrument comprised 90 items from 15 domains which are bonding, social competence, emotional competency, cognitive competency, behavioural competency, moral competency, self-efficacy, pro-social norms, resilience, self-determination, spirituality, clear and positive identity, beliefs in the future, pro-social involvement and recognition of positive behaviour. However, after conducting a pilot study, only 31 items measuring 7 domains were used for the actual survey. The respondents were asked according to their level of agreement and disagreement toward every statement using a 10 - point Likert scale ranging from 1 as highly disagree to 10 as highly agree.

Life satisfaction was measured using Satisfaction With Life Scale (SWLS) developed by Diener *et al.* [2] using a 10-point Likert scale. The scale was designed to assess one's own overall judgement of one's quality of life. SWLS is an instrument that assesses the positive side of the individual experience rather than focusing on unpleasant emotions and capable of measuring change in subjective well-being and intervention outcomes [17]. Respondents were asked to indicate the agreement or disagreement for each life-satisfaction item on a scale of 1 as strongly disagree to 10 as strongly agree.

Adopting the work of Shek [3], problem behaviour was measured using three indicators, labelled as substance abuse, delinquency and intention to engage in problem behaviour. Substance abuse was examined using a seven-point rating scale capturing respondent's frequency of using alcohol, tobacco, ketamine, cannabis, cough mixture, organic solvent, pills and narcotics. Delinquency was measured using 12 items using seven-point rating scale on the respondent's frequency of engaging in antisocial behaviour such as stealing, cheating, truancy, running away from home, damaging property, assault, having sexual relationship with others, gang fighting, speaking foul languages, staying away from home without parental consent, strong-arming others and breaking into residences. Intention to engage in problem behaviour was measured using a 10-point rating scale to capture respondent's intention to engage in problem behaviour such as consuming alcohol, smoking, consuming illicit drugs, engaging in sexual behaviour and gambling. Finally, the last part of the questionnaire contains questions pertaining to the demographic data of respondents.

RESULTS AND DISCUSSIONS

The structural model of the research is illustrated in Figure 1. The present study adopts Structural Equation Modelling (SEM) using AMOS 16 to examine the relationship between positive youth development, life satisfaction and problem behaviour. SEM accommodates both observable and latent variables together with their measurement errors and also allows hypothesis testing of the relationship between positive youth development and life satisfaction. Independent t-test was conducted to ascertain the means of life satisfaction for high level of positive youth development and low level of positive youth development group which were significantly different.

Profile of the Respondents: Analysis of the data revealed that the respondents are equally represented by both genders with 51 per cent female and 49 per cent male. Majority (83%) of them are in the age group between 15 - 25 years old. Mostly, the respondents (72%) attended national secondary school coming from both rural (50%) and urban areas (50%). Majority of them are not working, with only 17 per cent working. This employment figure is consistent with the data reported in Malaysia Statistics Year Book 2011 [29] which illustrates only 15 per cent individuals within this age group are working.

Reliability and Validity: The model's dimensionality, reliability and validity are assessed. The findings in Table 1 suggests that the unidimensionality of these constructs is achieved since all factor loadings exceeded

the required value of 0.6. The reliability assessment of an instrument is conducted using several criteria: Cronback's alpha (α), construct reliability (CR) and average variance extracted (AVE). An α of more than or equal to 0.7 suggests that the instrument achieved the internal reliability, CR value more than or equal to 0.6 indicating that the instrument meets the construct reliability requirement and AVE value of more than or equal to 0.5 suggest that the instrument is reliable.

The findings in Table 2 suggest that discriminant validity of the instrument is achieved since the diagonal values (square root of AVE) in bold is higher than the values in its row and column (correlating between constructs). The reliability and validity of the structural model are achieved as indicated by the values of CR (above 0.6) and AVE (above 0.5), the cut off points as proposed by Hair *et al.* [30].

The Model Goodness-of-fit: Figure 1 illustrates the structural model of the research. The model's goodness-of-fit is assessed using several acceptable statistical indices categorised into absolute fit, incremental fit and Parsimonious fit [30]. Absolute fit is assessed based on indexes such as root mean square error of approximation (RMSEA), the acceptable cut- of point is less than 0.08 and for goodness-of-fit index (GFI), the values should be more than 0.9. Incremental fit measures are comparative fit index (CFI) and Tucker Lewis Index (TLI). The values of these indexes should be more than 0.90. Parsimonious fit was determined using and normed Chi square and the cut- off value should be less than 5.0. The results of fitness indices of the model are illustrated in Figure 1.

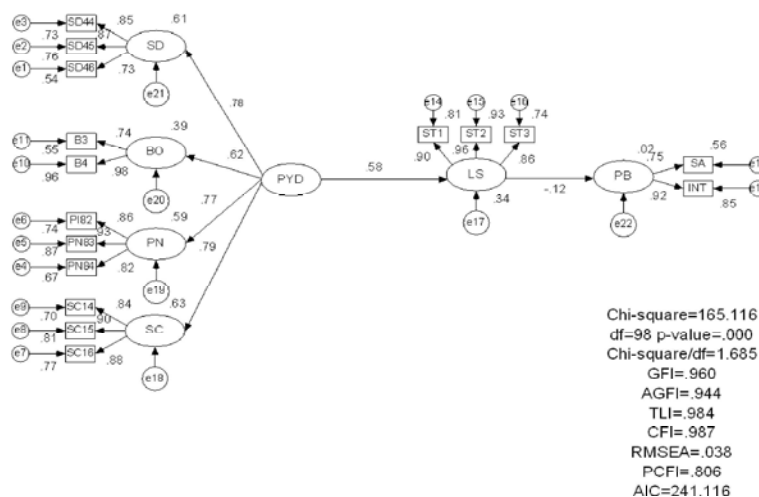


Fig. 1: Structure Model of Problem Youth Behaviour, Life Satisfaction and Problem Behaviour

Table 1: Reliability of the constructs measuring Positive Youth Development and Life Satisfaction.

Construct	Items	Factor Loading	α (≥ 0.7)	CR (≥ 0.6)	AVE (≥ 0.5)
Positive Youth Development (PYD)	Self-determination (SD)		0.85	0.86	0.67
	I am able to make wise choices. (SD44)	0.852			
	I am confident about my decision.(SD45)	0.869			
	I will not change easily after making a decision.(SD46)	0.733			
	Bonding(BO)		0.83	0.90	0.84
	When I need help, I trust my teachers will help me.(B3)	0.742			
	I love my teachers and classmates.(B4)	0.977			
	Pro-social norms (PN)		0.90	0.91	0.76
	I will try my best to contribute to the society.(PI82)	0.863			
	I care about unfortunate people in the society (PN83)	0.933			
	If there are opportunities, I will take up voluntary work (PN84)	0.816			
	Social Competence (SC)		0.90	0.91	0.76
	I know how to communicate with others.(SC14)	0.836			
	I understand the rules in interacting with others.(SC15)	0.902			
	I can interact with others in a harmonious manner.(SC16)	0.879			
	Life Satisfaction (LS)	In most ways my life is close to my ideal (ST1)	0.902	0.93	0.94
The conditions of my life are excellent (ST2)		0.963			
I am satisfied with my life.(ST3)		0.861			
Problem Behaviour (PB)	Intention to engage in problem behaviour	0.924	0.69	0.89	0.84
	Substance Abuse in the past 6 months	0.746			

Table 2: Discriminant Validity

Construct	SD	BO	PN	SC	LS	PB
Self Determination (SD)	0.82					
Bonding (BO)	0.49	0.91				
Pro-Social norms (PN)	0.58	0.49	0.87			
Social Competence (SC)	0.63	0.48	0.62	0.87		
Life Satisfaction (LS)	0.47	0.36	0.45	0.44	0.91	
Problem Behaviour (PB)	0.23	-0.07	-0.03	0.03	-0.13	0.91

Table 3: Unstandardised Regression Weights

Construct	Path	Construct	Estimate	S.E.	C.R.	P
Life satisfaction	<---	Positive youth development	1.03	0.105	9.82	***
Problem behaviour	<---	Life satisfaction	-0.02	0.007	-1.97	0.049
Bonding	<---	Positive youth development	1.01	0.095	10.61	***
Pro-social norm	<---	Positive youth development	0.97	0.086	11.29	***
Social competence	<---	Positive youth development	1.05	0.089	11.79	***
Self determination	<---	Positive youth development	1.00			

The model meet the requirement of goodness-of-fit since values of these indices meet their respective cut- off point requirements. Thus, the hypothesised model proposed fits the sample data adequately well and further analysis can be carried out. The model suggested that there are four underlying constructs to improve Positive Youth Development (PYD) namely self-determination (SD), bonding (BO), pro-social norm (PN) and social competence (SC). Life satisfaction and problem behaviour are manifested by three and two items respectively as illustrated in Table 1.

Relationships among Constructs: The path coefficients for the full model are significant (p-value < 0.05). The findings of the study indicate that there is positive significant relationship between positive youth development and life satisfaction ($\beta = 1.03$, $p < 0.001$). The result supports the hypothesis that positive youth development has significant effect on life satisfaction. Aspects of positive development that have an effect on life satisfaction are social competence, bonding, self-determination and pro-social norm. The result also suggests there is a negative significant

relationship between life satisfaction and problem behaviour ($\beta = -0.02, p < 0.05$), supporting the hypothesis that suggests life satisfaction has an inverse relationship with problem behaviour. The results of an independent t-test illustrate the two groups of the respondents differ significantly ($t = -9.59, p < 0.001$) in life satisfaction. The null hypothesis that there is no difference of means between the two groups is rejected. The result indicated that youths with higher level of positive youth development (mean = 8.65) are more satisfied with life compared to youths with low level of positive youth development (mean = 6.31).

DISCUSSION AND IMPLICATIONS

The findings of the study suggested four aspects of positive youth development that should become the major focus of investment by the Ministry of Youth and Sports to shape youth individual development process that would contribute to the development of the society and nation. These aspects are labelled as social competence, self-determination, pro-social norm and bonding. Social competence refers to the ability of youth to have interpersonal, social and communication skills. Self-determination reflects youth's ability to confidently make wise and firm judgement that contribute to their life satisfaction. Pro-social norm is the willingness of youth to undertake voluntary behaviour that would benefit others in the society and bonding signifies youth ability to form close relationships with someone, in this case, teachers and classmates, whom they can turn to when in need. Moreover, the study also proved that developing youth on these aspects would contribute to their life satisfaction. Consistent with previous study, it was empirically proven that youths with higher level of positive development were more satisfied with life. Achieving higher youth life satisfaction is crucial in reducing the incidents of youth involving in problem behaviour.

The findings of this study proposed, firstly, that the effort of youth development in Malaysia should focus on developing youth's social competence, self-determination, pro-social norms and bonding. Secondly, the approach to enhance positive youth development should begin by examining the specific youth group's requirements before designing specific positive development programmes because youth development is sensitive to the changes in the environment within a society. This study suggests four aspects of positive youth development, although Sun and

Shek [6] suggested there were fifteen in their study conducted in Hong Kong. Thirdly, life satisfaction which is a cognitive appraisal of one's quality of life has a significant impact on youth problem behaviour. Therefore, concerted efforts should be undertaken to enhance youth life satisfaction through initiatives that would meet youth expectations and provide proper life conditions. Meeting youth expectation is achieved through efforts to understand their basic needs, for example on education, independence and relationships, which proved to be lacking in Malaysia [4]. Moreover, youth activities organised by some youth associations should be conducted not on an ad hoc basis but based on the interest of members' desire.

The study was conducted not without limitations. Some of the limitations of the study were noted. First, the respondents participated in the study were youths who participated in the youth programme organised by the Malaysia Ministry of Youth and Sport in 2012 at the five states of Peninsular Malaysia. Thus, generalizing and applying the findings of the study to other Malay group of youths should be done with caution. Future studies should consider involving youths from other age groups. Moreover, the study was conducted on a cross-sectional research design, therefore the longitudinal study is recommended to overcome the causality problems of cross sectional research design. The study did not test the mediating effect of life satisfaction. It is recommended that future studies should undertake to ascertain the mediating effect of life satisfaction on the relationship between positive youth development and problem behavior among youths.

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REFERENCES

1. Shek, D.T.L., A.M.H. Siu and T.Y. Lee, 2007. The Chinese positive youth development scale: a validation study. *Research on Social Work Practice*, 17: 380-391.

2. Diener, E., R.A. Emmons, R.J. Larsen and S. Griffin, 1985. The satisfaction with life scale. *Journal of Personality Assessment*, 49: 71-75.
3. Shek, D.T.L., 2004. Chinese cultural beliefs about diversity: its relationship to psychological well-being, school adjustment and problem behavior in Chinese adolescents with and without economic disadvantages. *Childhood*, 11: 63-80.
4. Ruth, J.L. and J. Brooks-Gunn, 2003. Youth development programs: risks, prevention and policy. *Journal of Adolescent Health*, 32: 170-182.
5. Ghanavati, L.N., H. Ahmadi and B. Abadi, 2011. Rural Youth's Identity Crisis as an Inticate Problem: A Necessity to condiser it to Achieve Efficient Human Rural Resources. *World Applied Sciences Journal*, 13(4): 872 - 879.
6. Sun, R.C.F. and D.T.L. Shek, 2012. Positive youth development, life satisfaction and problem behaviour among chinese adolescents in hong kong: a replication. *Social Indicator Research*, 105: 541-559.
7. Dzuhaulmi Dahalan, Haslinda Abdullah, Azimi Hamzah, Ismi Arif Ismail, Ezhar Tamam, Abdul-Lateef Abdullah, Sarjit S. Gill, Nobaya Ahmad and Turiman Suandi, 2012. Malaysia youth council and relevance to youth development. *American Journal of Applied Sciences*, 9(7): 974-978.
8. Mahmood, N., M. Sabitha Marican, Nadiyah Elias and Yahya Don, 2008. Pattern of substance and drug misuse among youth in Malaysia. *Jurnal Antidadah Malaysia*, pp: 1-56.
9. National Council on Alcoholism and Drug Dependency, INC. 2014. [Online]. [Accessed on 15th February 2014] Available from World Wide Web: <http://www.ncadd.org/index.php/learn-about-drugs/drugs-and-crime>.
10. National Youth Development Policy 1995.
11. Asnarulkhadi, A.S., 2009. Emptiness of national youth policy-supporting youth potential through transformation of conflict approach. *Malaysian Journal of Youth Study*, 1: 1-22.
12. Laporan Dadah Tahun 2012, 2013. National Anti Drug Agency, Malaysia.
13. Ghasemi, A., M. Eftekhari, Ardebili, A.R. Foroshani, A. Tol and M.H. Taghdisi, 2013. Effect of Empowerment Based intervention programme on promoting life style among methamphetamine addict and their families compared with non addicts. *World Applied Science Journal*, 22(2): 270 - 275.
14. Catalano, R.F., M.L. Berglund, J.A.M. Ryan, H.S. Loncza and J.D. Hawkins, 2004. Positive youth development in the United States: research findings on evaluations of positive youth development programs. *The Annals of the American Academy of Political and Social Science*, 591: 98-124.
15. Lerner, R.M., J.V. Lerner, J. Almerigi, C. Theokas, S. Naudeau, S. Gestsdottir, S. Naudeau, H. Jelilic, A. Alberts, I. Ma, L. Smith, D. Bobek, D. Richman-Raphael, I. Simpson, E. D. Christiansen and A. Von Eye, 2005. Positive youth development, participation in community youth development programs and community contributions of fifth grade adolescents: Finding from the first wave of the 4-H study of positive youth development. *Journal of Early Adolescence*, 25(1): 17-71.
16. Sun, R.C.F. and D.T.L. Shek, 2010. Life satisfaction, positive youth development and problem behaviour among chinese adolescents in Hong Kong. *Social Indicator Research*, 95: 455-474.
17. Pavot, W. and E. Diener, 1993. Review of the satisfaction with life scale. *Psychological Assessment*, 5(2): 164-172.
18. Shin, D. and D.M. Johnson, 1978. Avowed happiness as an overall assessment of the quality of life. *Social Indicators Research*, 5: 475-492.
19. Huebner, E.S., 2004. Research on Assessment of life Satisfaction of Children and Adolescents, *Social Indicators Research*, 66: 3-33.
20. Rice, R.W., 1984. Organizational work and the overall quality of life. *Applied Social Psychology Annual*, 5: 155 -178.
21. Valois, R.F., K.J. Zullig, E.S. Huebner and J.W. Drane, 2001. Relationship between life satisfaction and violent behaviours among adolescents. *American Journal of Health Behavior*, 25(4): 353-366.
22. Valois, R.F., K.J. Zullig, E.S. Huebner and J.W. Drane, 2002. Association between life satisfaction and sexual risk-taking behaviors among adolescents. *Journal of Child and Family Studies*, 11(4): 427-440.
23. Valois, R.F., R.J. Paxton, K.J. Zullig and E.S. Huebner, 2006. Life Satisfaction and violent behaviors among middle school students. *Journal of Child and Family Studies*, 15: 695-707.
24. Proctor, C.L., P.A. Linley and J. Maltby, 2009. Youth life satisfaction: a review of the literature. *Journal of Happiness Studies*, 10: 583-630.

25. Kim, H.S. and H.S. Kim, 2008. Risks factors for suicide attempts among Korean adolescents. *Child Psychiatry and Human Development*, 39: 221-235.
26. Siang, A.C. and M. Abu Talib, 2011. An investigation of materialism and undergraduates' life satisfaction. *World Applied Sciences Journal*, 15(8): 1127 - 1135.
27. Simons-Morton, B.G., A. D. Crump, D.L. Haynie and K.E. Saylor, 1999. Student-school bonding and adolescent problem behavior. *Health Education Research*, 14(1): 99-107.
28. Lorion, R.P., D. Bussell and R. Goldberg, 1991. Identification of youth at high risk for alcohol or other drug problems. In Goplerud, E. N. (ed.), *Preventing Adolescent Drug Use: From Theory to Practice*. Office for Substance Abuse Prevention Monograph, 8: 53-89.
29. Malaysia Statistics Year Book 2011. 2012. Department of Statistics, Malaysia.
30. Hair, J.F., W.C. Black, B. J. Babin and R.E. Anderson, 2010. *Multivariate Data Analysis*. Prentice Hall, New Jersey.