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To cite this article: Suh-hee Choi & Ye-ji Yoo (2016): Leisure attitude and satisfaction with leisure and life: proposing leisure prioritization and justification, World Leisure Journal, DOI: 10.1080/16078055.2016.1216886

To link to this article: <http://dx.doi.org/10.1080/16078055.2016.1216886>



Published online: 12 Aug 2016.



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Leisure attitude and satisfaction with leisure and life: proposing leisure prioritization and justification

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ABSTRACT

The present study investigates the effect of students' strong attitudes towards leisure on their satisfaction with leisure and life by proposing the concepts of prioritization and justification as the two attitudinal aspects that significantly predict the outcomes of leisure involvement. This study also examines whether leisure satisfaction mediates the relationship between the prioritizing and justifying aspects of leisure attitude and life satisfaction. Relaxation, physical satisfaction, and psychological-educational satisfaction are set as the three dimensions of leisure satisfaction. Life satisfaction is used as a concept incorporating the notions of happiness, subjective well-being, and quality of life. Structural equation modelling is used to test the hypotheses. Data collected from 441 students in tertiary educational institutions in Macao are used for the analyses. Results show the importance of prioritizing and justifying leisure as determinants of leisure satisfaction and direct and indirect predictors of life satisfaction. However, our findings reveal that leisure satisfaction does not mediate the relationship of life satisfaction with leisure prioritization and justification. The study suggests the importance of the two newly suggested concepts as strong manifestations of leisure attitude as well as their roles in predicting satisfaction with life originating from leisure.

ARTICLE HISTORY

Received 16 February 2015

Accepted 13 June 2016

KEYWORDS

Leisure prioritization; leisure justification; leisure attitude; leisure satisfaction; life satisfaction

핵심어

여가 우선순위화; 여가 정당화; 여가 태도; 여가 만족; 삶에 대한 만족

여가 태도, 여가 만족 및 삶에 대한 만족: '여가 우선순위화' 및 '여가 정당화' 개념 제안

초록

본 연구는 우리 사회가 여가 중심의 문화로 전환되어 가는 것에 주목하여 "여가 우선순위화"와 "여가 정당화"를 개념화한 후, 이 두 측면의 여가 태도가 여가 만족도와 삶의 만족도에 미치는 영향을 분석하였다. 이에 더하여 여가 만족도가 이 두 가지 여가 태도 변수와 삶의 만족도 사이에서 매개변수로 작용하는지를 분석하였다. 여가 만족도는 휴식, 육체적 만족, 정신적-교육적 만족의 세 측면에서 측정하였다. 삶의 만족도는 행복감, 주관적 안녕감(SWB, Subjective Well-Being), 삶의 질의 개념을 포함하여 측정하였다. 경험적 연구를 위해 마카오의 고등교육기관에 재학 중인 대학생 441명을 대상으로 설문조사를 실시하였고, 구축된 구조방정식 모형 분석을 통해 가설을 검증하였다. 분석 결과, 여가를 우선순위화하고 정당화하는 태도가 여가 만족도와 삶의

만족도에 직간접적으로 유의미한 영향을 미치는 것으로 나타났다. 한편, 여가 만족도는 이 두 측면의 여가 태도와 삶의 만족도 사이에서 매개변수로 작용하지 않는 것으로 나타났다. 본 연구를 통해 여가 태도의 중요한 측면인 “여가 우선순위화”와 “여가 정당화”가 여가로부터 비롯된 삶의 만족도를 높일 수 있다는 시사점이 도출되었다.

Introduction

Based on the notion that attitude towards leisure is associated with leisure motivation, leisure involvement, leisure satisfaction, and happiness (Chen, Li, & Chen, 2013; Nawijn & Veenhoven, 2013), leisure attitude has been used as a key predictor for the meaning and direction of people's lives. In specific, positive leisure attitudes are enhanced when a desired status of being, such as personal development, is expected (Ma, Tan, & Ma, 2012; Mannell & Kleiber, 1997). On the other hand, when someone thinks that leisure is not a good choice for spending time because of its perceived unproductivity, they are not likely to be involved with leisure. Others, especially those with external commitments related to work and family, even feel guilty about having leisure time, and such attitudes are reflected in their lifestyle (Stone & O'shea, 2013).

Although general attitudes towards leisure may predict lifestyle and its outcomes to some extent, limitations can be found in the extant literature. Scrutiny of individuals' lifestyles reveals that there is a gap between recognizing the importance and the positive function of leisure and actual leisure involvement as well as its outcomes. In many cases, even if individuals accept the influence that leisure has on positive life outcomes, such an attitude in itself may fail to significantly predict their behavioural involvement in and satisfaction with leisure life and life in general.

Acknowledging such limitations, the present study aims to conceptualize leisure prioritization and justification and identify their effect on individuals' satisfaction with leisure and life. These two aspects of leisure attitude attempt to address the limitation in the general understanding of leisure attitude. They are expected to capture the strongly positive attitudes of leisure that provide clues to an individual's leisure-oriented lifestyle, expected to importantly indicate the positive outcomes of such a lifestyle. In that sense, the current study is differentiated from most other studies examining leisure in that it uniquely focuses on prioritizing and justifying patterns of individuals in shaping attitudes towards leisure after reconceptualizing those two terms. If any significant effects of such attitudes on leisure and life satisfaction were to be found, it would be important for society to encourage its members, especially students, who tend to maintain their lifestyles from the beginning of their school years (Sylvia-Bobiak & Caldwell, 2006), to form not only more positive but also more active and strong commitments towards leisure.

Literature review

Leisure prioritization and justification

The perceived importance of leisure is associated with social relationship, productivity at work, health, and overall quality of life. Attitude towards leisure has been closely examined

because predisposition for the engagement in leisure activities has been known to be influenced by this variable (Ragheb & Beard, 1982). Attitude incorporates perceptions, knowledge, belief, feelings, and behavioural patterns about leisure (Stockdale, 1985; Teixeira & Freire, 2013). In contrast to place-centred attributes of leisure, such as leisure resources, leisure attitude includes person-centred characteristics along with leisure satisfaction (Lloyd & Auld, 2002). Also, it is closely associated with the social-psychological aspect of leisure involvement (Havitz & Dimanche, 1990; Kim, Scott, & Crompton, 1997), which incorporates the concepts of motivation, arousal, and interest.

Scholars have examined the components and dimensions of leisure attitude. The tri-chotomous structure of cognitive, affective, and behavioural components has been widely used based on Ragheb and Beard's (1982) conceptualization because such a structure provides comprehensive ideas about the concept of leisure attitude (Teixeira & Freire, 2013). Specifically, the cognitive component incorporates knowledge and beliefs about the benefits of leisure. The affective component refers to how individuals feel about leisure and the degree to which they like leisure experiences. The behavioural component focuses on how much individuals have been, are, or intend to be associated with leisure activities; the frequency, the intention to increase the amount of time and money spent for leisure, and the intention to allocate more time for preparation and learning about leisure capture this component.

Conditions that affect the formation of attitudes towards leisure have been closely examined. Attitude theories have been used to illustrate the causes of leisure attitude formation. For instance, the theory of reasoned action (Ajzen & Fishbein, 1980) assumes that individuals' attitude formation is based on information. Information about leisure is obtained not only from the macro society such as public and private education but also from micro societal forces such as family and friends. Based on such a notion, some studies have highlighted that leisure attitudes are affected by parenting style. Children may form leisure attitudes and focus on certain types of leisure activities depending on how parents guide them (Siegenthaler & O'Dell, 2000). Beyond the scope of family, the notion of leisure as the outcome of a social mechanism supports the role of community and society that shapes individuals' leisure attitudes (Arai & Pedlar, 2003). Such a pattern implies that attitudes towards leisure are formed based on how individuals understand and judge social incidents, as is explained by social judgement theory (Havitz & Dimanche, 1997; Kyle, Absher, Norman, Hammitt, & Jodice, 2007).

Based on the concept of leisure attitude, the present study focuses on leisure prioritization and justification as its aspects, which function as significant predictors of individuals' leisure and life satisfaction. Although prioritization of work or life is often situation-specific, individuals' characteristics determine the tendency to prioritize either of the two and to justify leisure.

The idea of the prioritizing and justifying mechanism of leisure is partly reflected in the way Ragheb and Beard (1982) operationalized leisure attitude. For example, the notion of leisure justification is seen in the items measuring the cognitive component of leisure attitude as stated in the following: "Engaging in leisure activities is a wise use of time" and "people need leisure activities". The notion is also revealed in items measuring the affective component, such as the statement, "I feel that the time I spend on leisure is not wasted". The notion of leisure prioritization is reflected in the behavioural component of leisure attitude in the following items: "I spend considerable time and effort to be more competent

in my leisure activities”; “given a choice I would live in an environment or city which provides for leisure”; “I do some leisure activities even when they have not been planned”; “I engage in leisure activities even when I am busy”; and “I give my leisure high priority among other activities”.

In addition to leisure attitude, the notions of prioritization and justification have been often discussed within the context of work–life balance (Powell & Greenhaus, 2006) as well as leisure orientation (Snir & Harpaz, 2002). Prioritization conceptualized in the present study is also associated with some aspects of leisure involvement, such as attraction, self-expression, and centrality (Kyle et al., 2007). First, measuring how individuals prioritize and justify leisure time indicates the degree of work and life balance. Second, Snir and Harpaz (2002) adopted the conceptualization of leisure orientation proposed by Burdge and defined it as “the attitude of an individual or a group of individuals to leisure”. Leisure-oriented people are more likely to acknowledge the value of leisure and spend more time on it. In addition, Kuykendall, Tay, and Ng (2015) adopted the term “leisure engagement”, which refers to “the amount of time, diversity, or frequency of one’s participation” not only in normatively defined leisure activities but also “in activities that individuals view as leisure” (p. 365) and investigated the relationship between leisure engagement and subjective well-being by utilizing a meta-analysis. Stenseng (2008) applied Vallerand et al.’s (2003) dualistic model of passion – a harmonious and obsessive passion – to examine the effect of leisure activity engagement.

Prioritization and justification are frequently found in serious leisure. The perseverance aspect of serious leisure captures how much people intend to participate in certain leisure activities even if their mental and physical condition is not ideal for involvement. Centrality of serious leisure (Kyle et al., 2007) implies that leisure activities play a central role in the leisure participants’ lives.

Leisure satisfaction

Beard and Ragheb (1980 as cited by Ateca-Amestoy, 2011) define leisure satisfaction as individuals’ positive perceptions or feelings as a result of leisure participation and the fulfilment of individuals’ needs. Leisure satisfaction can be based on general or specific leisure experiences and situations. The present study proposes that leisure satisfaction is the cognitive and affective evaluation of the outcomes of leisure activities originating from emotional, social, physical, psychological, and educational fulfilment.

According to Beard and Ragheb (1980), leisure satisfaction is understood from six dimensions – psychological, educational, social, relaxing, physiological, and aesthetic. The psychological dimension focuses on the perceived benefits that leisure involvement accrues. The educational dimension captures how much individuals perceive they learn from leisure participation. The social dimension focuses on meeting new people and building a personal network. Relaxing concerns relieving stress. The physiological dimension captures the degree to which individuals are satisfied with enhanced health as an outcome of leisure participation. Last, the aesthetic dimension concerns the sanitation and design of the recreational areas where individuals are involved in leisure activities. The current study focuses on the following aspects of leisure satisfaction – relaxation, physical enhancement, and psychological-educational satisfaction. Aesthetic satisfaction

and social satisfaction deal with that beyond the personal level: thus, these two dimensions are not considered in this study.

Life satisfaction

We define life satisfaction as the evaluation, mood, and feelings about individuals' lives from the perspective of the way each deals with both the external environment and self-concept. Despite diversified approaches and definitions, life satisfaction has been widely used as an indicator for happiness and subjective well-being (Diener et al., 2009, 2010; Diener, Oishi, & Lucas, 2009), quality of life (Cummins, 1997; Diener & Diener, 1995), and satisfaction with life (Diener, Emmons, Larsen, & Griffin, 1985; Pavot & Diener, 1993, 2008). Students' life satisfaction has also been the focus among academicians and practitioners. Various attempts have been made to capture life satisfaction and positive psychological well-being that fits with students' lives (Huebner, 1991, 1994; Huebner, Suldo, & Valois, 2003; Huebner, Valois, Paxton, & Drane, 2005; Seligson, Huebner, & Valois, 2003).

Leisure prioritization and justification on leisure and life satisfaction

The relationship between leisure attitude and leisure and life satisfaction has been tested (Ragheb, 1980; Ragheb & Tate, 1993). In line with such findings, the present study proposes that those who prioritize and justify leisure can enjoy spending leisure time and enhance participation; these ultimately lead to enhanced satisfaction with leisure and life.

In this study, leisure satisfaction is proposed as the construct that has a mediating role in the relationship between the prioritizing and justifying aspects of leisure and life satisfaction. According to Baron and Kenny's (1986) suggestion, the following conditions should be met in order for leisure satisfaction to become a mediator. First, the leisure prioritization–justification construct should have a significant association with leisure satisfaction. Then, there should be a significant association between leisure prioritization–justification and life satisfaction. When both leisure prioritization–justification and leisure satisfaction variables are in the model, leisure satisfaction should have a significant association with life satisfaction. Last, when the paths of leisure prioritization–justification and leisure satisfaction as well as leisure satisfaction and life satisfaction are controlled, the path linking leisure prioritization–justification and life satisfaction significantly reduces. That is, the association should be significantly less with the mediator than without.

First, prioritization and justification of leisure and motivation to initiate and maintain leisure participation is involved when individuals expect sustained positive outcomes to accrue from leisure. Individuals learn the benefits from engaging in leisure activities and become involved with the type of leisure activities that fit their needs. Therefore, leisure prioritization–justification would be significantly associated with leisure satisfaction.

Second, studies have shown that each component of leisure attitude positively affects the quality of life (e.g. Lloyd & Auld, 2002). The notion that how much individuals are dedicated to leisure shapes life is also reflected in Stenseng and Phelps (2013). According to their study, a dualistic model of passion illustrates that leisure, which has an autonomous nature, leads to harmonious passion and internalization of the activities. Prioritizing and justifying leisure would enhance such internalization and can predict continued interest in leisure. Harmonious passion facilitates positive emotions, and in the end,

leads to the domains of life and well-being. Several studies have posited and tested a close relationship between leisure and life satisfaction (Iso-Ahola, Allen, & Buttner, 1982) and happiness in general (Hallab, 2006). Such associations are supported by the notion that life satisfaction results from the outcome of individuals' adequate work-life balance and fulfillment of each dimension of leisure functions. The relationship between leisure and life satisfaction is also supported by the reasoning that leisure is a significant component of a human's entire life, and leisure satisfaction is likely to be expanded to individuals' life satisfaction (Neal, Sirgy, & Uysal, 1999). Hutchinson and Kleiber (2005) described the outcomes of leisure as enhanced self-protection, self-restoration, and personal transformation. The overall contribution of leisure in increased life satisfaction has widely been acknowledged, and each aspect of leisure as well as each dimension of leisure satisfaction also predict life satisfaction. Campbell (1981) noted the positive effects that physical and mental relaxation have on work and life satisfaction. Such associations are expected to be applicable in diverse leisure domains, spanning from casual leisure (Hutchinson & Kleiber, 2005) to serious leisure (Heo, Stebbins, Kim, & Lee, 2012).

The direct and indirect impacts of leisure attitude on life satisfaction and its direct impact on leisure satisfaction, academically reported previously, suggest that its prioritizing and justifying aspects are also likely to have direct and indirect effects on the mediator and the outcome variables. There are studies which may marginally provide evidence on the role of leisure satisfaction. For example, Kuykendall et al. (2015) supported that the relationship between leisure engagement and subjective well-being is mediated by leisure satisfaction. Hwang, Kim, and Lee (2011) set and tested leisure satisfaction as mediator in the relationship between serious leisure and quality of life. Few studies, however, have focused on such an effect, especially on college students. Kim, Sung, Park, and Dittmore (2015) recently reported the mediating effect of leisure satisfaction in the relationship between leisure attitude and psychological well-being. Such results derive hypotheses to be tested in the current study, where we have focused on specific aspects of attitude and leisure satisfaction dimensions.

Hypothesis: Leisure satisfaction mediates the relationship of life satisfaction with leisure prioritization and leisure justification.

Hypothesis 1: Leisure prioritization-justification is significantly associated with leisure satisfaction.

Hypothesis 2: Leisure prioritization-justification is significantly associated with life satisfaction.

Hypothesis 3: Leisure satisfaction is significantly associated with life satisfaction when leisure prioritization-justification is included together in the model.

Methodology

Procedure and participants

Data were collected from self-administered online surveys of local undergraduate students enrolled in universities and colleges in Macao from January to May of 2014 and 2015. Utilizing online and offline networks, we invited students who were willing to participate in the survey. Therefore, the acceptance rate was more than 99%, while 84.5% of the

participants completed the entire survey. English and Chinese versions of the questionnaires were provided together on the survey website. Structural equation modelling with AMOS 19 was used to test the structural relationships (Arbuckle, 2010).

Measurement

Leisure prioritization and leisure justification were measured as a second-order factor. Items were based on Ragheb and Beard's (1982) leisure attitude scale. Among all the cognitive, affective, and behavioural components of the scale, items reflecting the two aspects were adopted. Justification – the tendency of the respondents to perceive the value of leisure activities – was measured using two items from Ragheb and Beard (1982): “I think engaging in leisure activities is a wise use of time”; and “I feel that the time I spend on leisure is not wasted”. The second aspect – prioritization – was measured with two items that reflect the engagement in leisure in even a busy state and prioritizing leisure among other activities. In specific, items were directly adopted from Ragheb and Beard (1982), and the following items were used: “I engage in leisure activities even when I am busy”; and “I give my leisure high priority among other activities”.

Items from Beard and Ragheb's (1980) scale were adopted for the measurement of leisure satisfaction. Measurements for the three dimensions of leisure satisfaction were used. First, in order to measure relaxation, the following items were used: “My leisure activities help me to relax”; “My leisure activities help relieve stress”; “My leisure activities contribute to my emotional well-being”; and “I engage in leisure activities simply because I like doing them”. Second, for physical satisfaction, the following items were used: “My leisure activities are physically challenging”; “I do leisure activities which develop my physical fitness”; “I participate in my leisure to restore me physically”; and “My leisure activities help me to stay healthy”. Third, for psychological-educational satisfaction, the following items were used: “My leisure activities give me a sense of accomplishment”; “I use many different skills and abilities in my leisure activities”; “My leisure activities increase my knowledge about things around me”; and “My leisure activities provide opportunities to try new things”.

For life satisfaction, five items were adopted from the scales measuring satisfaction with student life (Huebner et al., 2003) as well as satisfaction with life (Diener, 2014; Diener et al., 1985). In specific, the following items were used: “Because of my leisure pattern, my life is going well”; “Because of my leisure pattern, my life is better than most students”; “Because of my leisure pattern, the conditions of my life are excellent”; “Because of my leisure pattern, I am satisfied with my life”; and “Because of my leisure pattern, in most ways my life is close to my ideal”. All the questions were asked on a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree (see Table 1).

Results

A total of 441 complete questionnaires were used for the final analysis. Table 2 displays the demographic profiles. Second-year students accounted for the highest percentage, 63.5%; followed by first-year students, 14.1%; third-year students, 11.1%; and fourth-year students, 6.8%. Females slightly outnumbered males, accounting for 66.4% of the total respondents. Such a pattern may be the outcome of the sample characteristics because a majority of the total students in most tertiary educational institutions are female

Table 1. Descriptive statistics of measurement items.

Item	Mean	Std. Dev.	Skewness	Kurtosis
<i>Leisure Prioritization–Justification</i>				
1. Leisure Justification (Cronbach's alpha: .618)				
LJ1: I think engaging in leisure activities is a wise use of time.	3.20	.857	−.299	.130
LJ2: I feel that the time I spend on leisure is not wasted.	3.17	.832	−.171	.042
2. Leisure Prioritization (Cronbach's alpha: .686)				
LP1: I engage in leisure activities even when I am busy.	3.43	.729	.169	−.024
LP2: I give my leisure high priority among other activities.	3.71	.821	−.580	.773
<i>Leisure Satisfaction</i>				
1. Relaxation (Cronbach's alpha: .885)				
RL1: My leisure activities help me to relax.	3.84	.780	−.289	−.010
RL2: My leisure activities help relieve stress.	3.80	.776	−.173	−.274
RL3: My leisure activities contribute to my emotional well-being.	3.81	.794	−.253	.039
RL4: I engage in leisure activities simply because I like doing them.	3.80	.838	−.317	−.115
2. Physical Satisfaction (Cronbach's alpha: .841)				
PHY1: My leisure activities are physically challenging.	3.44	.890	−.018	−.311
PHY2: I do leisure activities which develop my physical fitness.	3.48	.874	.001	−.304
PHY3: I participate in my leisure to restore me physically.	3.49	.837	−.010	−.005
PHY4: My leisure activities help me to stay healthy.	3.61	.852	−.239	.099
3. Psychological-Educational Satisfaction (Cronbach's alpha: .842)				
PSY1: My leisure activities give me a sense of accomplishment.	3.46	.774	.193	.274
PSY2: I use many different skills and abilities in my leisure activities.	3.56	.813	−.040	−.115
PSY3: My leisure activities increase my knowledge about things around me.	3.72	.759	−.257	.143
PSY4: My leisure activities provide opportunities to try new things.	3.74	.788	−.141	−.154
Life Satisfaction (Cronbach's alpha: .896)				
LS1: Because of my leisure pattern, my life is going well.	3.49	.823	−.336	.541
LS2: Because of my leisure pattern, my life is better than most students.	3.18	.852	−.068	.370
LS3: Because of my leisure pattern, the conditions of my life are excellent.	3.32	.836	−.184	.286
LS4: Because of my leisure pattern, I am satisfied with my life.	3.35	.905	−.216	−.097
LS5: Because of my leisure pattern, in most ways my life is close to my ideal.	3.20	.897	−.037	−.124

(Macao Tertiary Education Services Office (GAES), 2013). In the school year of 2012/2013, there were a total of 17,574 local students enrolled in a total of 10 tertiary educational institutions in Macao, with 7702 male and 9872 female students. Overall, a majority of respondents were from the Institute for Tourism Studies (IFT) (30.5%), the University of Macau (27.0%), and Macao Polytechnic Institute (13.3%), which reflects demographics for this study.

Table 2. Demographic profile of the sample ($n = 441$).

Class level	No. of respondents (%)
Year 1 Student	62 (14.1)
Year 2 Student	280 (63.5)
Year 3 Student	49 (11.1)
Year 4 Student	30 (6.8)
Newly graduated	17 (3.9)
No response	3 (0.7)
<i>Gender</i>	
Male	145 (32.9)
Female	293 (66.4)
No response	3 (0.7)
<i>School</i>	
Institute for Tourism Studies	162 (36.7)
University of Macau	102 (23.1)
Macao Polytechnic Institute	46 (10.4)
Macao University of Science and Technology	43 (9.8)
University of St. Joseph	13 (2.9)
Kiang Wu Nursing College of Macau	11 (2.5)
Other	64 (14.5)
Total	441 (100.0)

A two-step approach of measurement model and structural model testing was adopted. A structural model was set with leisure prioritization–justification as a predictor, leisure satisfaction as its outcome, and life satisfaction as the final outcome of the entire structural model (Figure 1). Cronbach’s alphas for the constructs show that the constructs of leisure satisfaction and life satisfaction had very good construct reliabilities of more than .70 while leisure justification (.618) and leisure prioritization (.686) had relatively low yet marginally acceptable Cronbach’s alphas (Hair, Anderson, Tatham, & Black, 1998). Although the construct reliability as well as the factor loadings of .651 and .692 for justification were relatively low, review of the wording of items – “I think engaging in leisure activities is a wise use of time” and “I feel that the time I spend on leisure is not wasted” – deemed them to have face validity because the items reflected the construct. Furthermore, developing new indicators for prioritization or justification was not the purpose of the present study; hence, indicators for the two constructs were adopted from the existing leisure attitude scale. Considering the above-mentioned conditions, the construct and the measurement items for the construct were all kept in the model.

The structural model fit well with the data ($\chi^2(181, n = 441) = 361.927$, $\chi^2/df = 2.000$, comparative fit index = .961, goodness-of-fit index = .926, root mean square error of approximation = .049, and standardized root mean square residual = .049). The structural model testing supported Hypotheses 1 and 2 at the significance level of .01, with the *p*-values of all the path coefficients being less than .002 (Table 3). However, the path of leisure satisfaction and life satisfaction was not significantly associated with the inclusion of leisure prioritization–justification in the model ($b = .149$, $p = .196$), rejecting Hypothesis

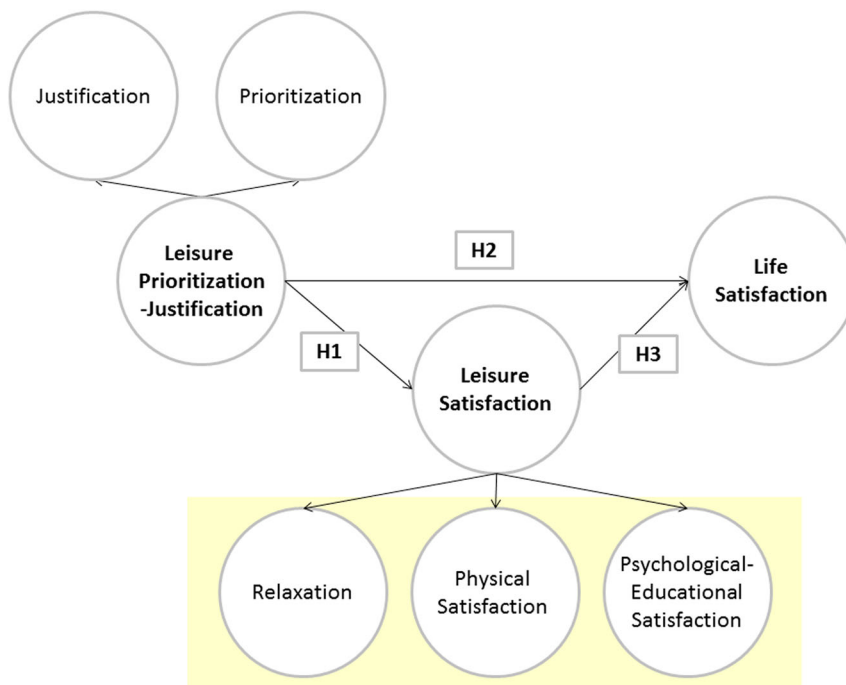


Figure 1. Proposed structural model illustrating the effect of leisure prioritization and justification on leisure and life satisfaction.

Table 3. Path coefficients of the structural model.

Hypothesis	Standardized estimate	Unstandardized estimate	Standard error	<i>p</i>
H1 Leisure Prioritization–Justification → Leisure Satisfaction	.648	.936	.169	<.001
H2 Leisure Prioritization–Justification → Life Satisfaction	.392	.664	.215	.002
H3 Leisure Satisfaction → Life Satisfaction	.127	.149	.115	.196

3. Further, rejection of Hypothesis 3 also shows that leisure satisfaction does not function as a mediator in the relationship between leisure prioritization–justification and life satisfaction. Therefore, the overarching hypothesis, which is rejected when rejecting any of the three hypotheses (1, 2, and 3), was rejected. Standardized and unstandardized, second-order and first-order factor loadings are displayed in [Tables 4](#) and [5](#).

In order to further explore the cause of the insignificant path between leisure satisfaction and life satisfaction, another model was constructed, with the three dimensions of leisure satisfaction as first-order factors. The insignificant relationship between relaxing leisure satisfaction and life satisfaction found from the present study was consistent with the findings from a study done with Korean university students (Lee, 2010). All other structural paths showed significant relationships (see [Table 6](#)).

Discussion

Results from the conceptual examination and empirical testing of the causal model suggest that students who prioritize and justify leisure activities consider that spending leisure time is beneficial for their physical and mental health. While all other dimensions of leisure satisfaction have positive impacts on their perceived well-being and the quality of life, relaxing leisure satisfaction did not. Because of the insignificant association of this sub-dimension and life satisfaction, the empirical evidence from the current study showed that leisure satisfaction does not mediate the association that the prioritizing and justifying aspects of leisure lead to life satisfaction. The results do not support some findings from previous studies, such as those from Kuykendall et al. (2015). It is possible that the fact that Macao's university students' perception of the positive role of leisure in relaxation and emotional relief or the perception that they are enjoying the leisure life does not mean that they perceive their life condition is good because of their leisure pattern. Macao's university students may not perceive leisure for relaxation as

Table 4. Coefficient estimates of the structural model (second-order factor loadings).

Second-order factor loading	Standardized estimate	Unstandardized estimate	Standard error	<i>p</i>
Leisure Prioritization–Justification → Justification	.752	1	–	–
Leisure Prioritization–Justification → Prioritization	.698	1.144	.199	<.001
Leisure Satisfaction → Relaxation	.834	1	–	–
Leisure Satisfaction → Physical Satisfaction	.768	.884	.080	<.001
Leisure Satisfaction → Psychological-Educational Satisfaction	.840	.830	.073	<.001

Table 5. Coefficient estimates of the structural model (first-order factor loadings).

Factor-item	Standardized estimate	Unstandardized estimate	Standard error	p
<i>Leisure Prioritization–Justification</i>				
Justification → LJ1	.710	0.993	.134	<.001
Justification → LJ2	.634	1	–	–
Prioritization → LP1	.750	1	–	–
Prioritization → LP2	.696	0.903	.112	<.001
<i>Leisure Satisfaction</i>				
Relaxation → RL1	.869	1	–	–
Relaxation → RL2	.842	0.965	.044	<.001
Relaxation → RL3	.835	0.979	.045	<.001
Relaxation → RL4	.711	0.879	.052	<.001
Physical Satisfaction → PHY1	.732	1	–	–
Physical Satisfaction → PHY2	.822	1.104	.070	<.001
Physical Satisfaction → PHY3	.718	0.923	.066	<.001
Physical Satisfaction → PHY4	.756	0.989	.067	<.001
Psychological-Educational Satisfaction → PSY1	.722	1	–	–
Psychological-Educational Satisfaction → PSY2	.761	1.107	.075	<.001
Psychological-Educational Satisfaction → PSY3	.777	1.056	.071	<.001
Psychological-Educational Satisfaction → PSY4	.765	1.080	.073	<.001
<i>Life Satisfaction</i>				
Life Satisfaction → LS1	.819	1.052	.080	<.001
Life Satisfaction → LS2	.823	1.099	.083	<.001
Life Satisfaction → LS3	.871	1.166	.083	<.001
Life Satisfaction → LS4	.871	1.236	.088	<.001
Life Satisfaction → LS5	.739	1	–	–

meaningful for life. Even if they perceive that they prioritize and justify their leisure itself, the students may treat in different ways different types of leisure driven by different motivations, leading to different domains of leisure satisfaction. For them, prioritizing and justifying the types of leisure that facilitate their relaxation may not necessarily be perceived to enhance life quality, but rather doing so in physical activities or intellectual activities, which are more likely to lead to satisfaction in similar domains, may be more important and crucial for the students. Regional characteristics as well as demographic characteristics may have shaped this pattern of non-mediation in the proposed generalized leisure life model. The results may imply its regional leisure culture in which physical activities and educational function through leisure are encouraged.

Most important, the findings lead to the conclusion that the prioritizing and justifying leisure are so important that they predict individuals' perception towards life. In particular, the effect of positive attitudes towards leisure in general and prioritization and justification in particular provides implications to other parts of one's life, such as work–life

Table 6. Structural path coefficients of the first-order factor model.

Path	Standardized estimate	Unstandardized estimate	Standard error	p
Leisure Prioritization–Justification → Life Satisfaction	.355	.897	.161	<.001
Relaxation → Life Satisfaction	–.040	–.037	.047	.427
Physical Satisfaction → Life Satisfaction	.188	.183	.051	<.001
Psychological-Educational Satisfaction → Life Satisfaction	.180	.210	.062	<.001

balance, family conflicts, and stress management. It should be noted, as discussed previously, that leisure attitude is formed, as would be leisure prioritization and justification, not only at an individual psychological level, but also based on the role of micro and macro society, such as the influence from the family (Siegenthaler & O'Dell, 2000) and the societal understanding of the importance of leisure and its level of encouragement in leisure participation of the member of the society (Havitz & Dimanche, 1997; Kyle et al., 2007). The empirical findings from this study, therefore, not only support the importance of leisure prioritization justification in affecting individuals' lives but also call for societal acknowledgement of the value of a leisure-oriented life.

Conclusion and implications

The present study has theoretical contributions in that it proposed prioritization and justification as two aspects that importantly reflect leisure attitude. The study further examined if the prioritizing and justifying tendency of leisure affects how much the participants are satisfied with leisure and life. The result that leisure satisfaction does not mediate the association further shows the strong direct function of leisure prioritization and justification on life satisfaction. The empirical study focused on the demographic group of undergraduate students in Macao, acknowledging the effect that their perception about leisure has on their current and future life quality. The results supported the significant effect of positive attitude formation towards leisure on enhanced leisure and life satisfaction. Future studies are required to investigate if the findings from the present study can be extended to the general population. Further efforts for scale development focusing on the two aspects of leisure attitude are also warranted.

The present study suggests the importance of social support that enables people to form positive attitudes towards leisure in general and to prioritize and justify leisure in particular. In order to enhance an individual's life satisfaction, not only personal recognition of the importance of leisure but also social support to form positive attitudes towards leisure in the form of education, legislation, and systematic establishment are required. Such support by means of education is more important to undergraduate students because leisure attitudes formed in individuals' younger life stages tend to be maintained throughout their remaining years of life. Moreover, college years are an important time in one's life, and positive outcomes accrued from leisure during that time have a beneficial influence on students' lives (Beggs & Elkins, 2010). Also, because of the high intellectual levels of undergraduate students, they have potential to influence other societal groups. Therefore, the results suggest that colleges and universities consider education programs in order for their students to develop positive attitudes towards their leisure time.

Disclosure statement

No potential conflict of interest was reported by the authors.

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Appendix

Table A1. Correlation matrix of the variables used in this study.

	LP1	LP2	LJ1	LJ2	RL1	RL2	RL3	RL4	PHY1	PHY2	PHY3	PHY4	PSY1	PSY2	PSY3	PSY4	LS1	LS2	LS3	LS4
LP2	.522**																			
LJ1	.274**	.248**																		
LJ2	.248**	.257**	.450**																	
RL1	.231**	.208**	.341**	.282**																
RL2	.187**	.179**	.292**	.203**	.763**															
RL3	.244**	.197**	.272**	.327**	.707**	.692**														
RL4	.154**	.127**	.240**	.221**	.609**	.563**	.628**													
PHY1	.222**	.146**	.169**	.124**	.363**	.347**	.383**	.336**												
PHY2	.223**	.202**	.190**	.202**	.428**	.410**	.459**	.420**	.655**											
PHY3	.138**	.180**	.169**	.132**	.442**	.410**	.403**	.380**	.493**	.566**										
PHY4	.161**	.212**	.164**	.084	.418**	.427**	.465**	.354**	.514**	.609**	.584**									
PSY1	.301**	.211**	.231**	.244**	.401**	.417**	.432**	.369**	.408**	.423**	.330**	.365**								
PSY2	.271**	.192**	.178**	.167**	.428**	.410**	.398**	.343**	.400**	.380**	.399**	.411**	.608**							
PSY3	.197**	.201**	.198**	.236**	.453**	.457**	.511**	.438**	.341**	.347**	.385**	.429**	.518**	.576**						
PSY4	.116*	.191**	.192**	.236**	.478**	.477**	.502**	.411**	.290**	.346**	.362**	.354**	.525**	.565**	.638**					
LS1	.238**	.216**	.246**	.137**	.268**	.224**	.315**	.303**	.260**	.242**	.217**	.265**	.241**	.255**	.343**	.223**				
LS2	.222**	.215**	.194**	.098*	.123**	.081	.195**	.148**	.174**	.178**	.155**	.208**	.202**	.186**	.227**	.166**	.634**			
LS3	.250**	.233**	.214**	.178**	.173**	.152**	.196**	.179**	.266**	.225**	.254**	.265**	.208**	.238**	.264**	.192**	.659**	.662**		
LS4	.219**	.184**	.203**	.131**	.174**	.133**	.197**	.180**	.199**	.147**	.170**	.185**	.222**	.188**	.235**	.178**	.690**	.604**	.705**	
LS5	.189**	.145**	.160**	.075	.111*	.108*	.119*	.148**	.177**	.162**	.194**	.212**	.171**	.136**	.166**	.083	.540**	.533**	.650**	.665**

**Significant at the .01 level (2-tailed).

*Significant at the .05 level (2-tailed).