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ORIGINAL RESEARCH

# Testing The Benefits Theory of Leisure Wellbeing

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## Abstract

The purpose of this study is to empirically test Sirgy, Uysal, & Kruger's (2017) benefits theory of leisure wellbeing in the March 2017 issue of the *Applied Research in Quality of Life*. The theoretical model posits that leisure activities contribute to leisure wellbeing by satisfying a set of basic needs (benefits related to safety, health, economic, sensory, escape, and sensation) and growth needs (symbolic, aesthetic, moral, mastery, relatedness, and distinctiveness), moderated by corresponding personality variables (safety consciousness, health conscious, price sensitivity, hedonism, escapism, sensation seeking, status consciousness, aestheticism, moral sensitivity, mastery seeking, extroversion, and need for distinction, respectively). The model was tested using data collected in South Korea using a sample of 502 adult leisure activity participants. The study results supported the theoretical notion that leisure activities contribute to leisure wellbeing through perceived benefits pertaining to safety, health, economic, sensory, escape, and sensation (benefits related to basic needs) as well as perceived benefits pertaining to symbolic, aesthetic, moral, mastery, relatedness, and distinctiveness (benefits related to growth needs). The results also indicate that personality variables influence the perception of leisure benefits, which in turn has a direct effect on leisure wellbeing. In other words, the results largely support the mediation, not moderation, effects of personality variables on leisure wellbeing. Theoretical and managerial implications are discussed.

**Keywords** Leisure benefit theory · Basic needs benefits · Growth needs benefits · Personality · Leisure wellbeing · Subjective wellbeing

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## Introduction

Engagement in leisure activities provides individuals with many leisure benefits (e.g., Beard & Ragheb, 1980; Driver et al., 1991; Newman et al., 2014; Philipp, 1997; Sheth et al., 1991), and leisure benefits play an important role in determining leisure wellbeing (e.g., Bruns, 1997; Driver, 1990). Leisure benefit theory of wellbeing, as developed by Sirgy et al. (2017), describe and explain the theoretical mechanisms linking perceived leisure benefits with leisure wellbeing. Specifically, the model posits that (1) leisure activities contribute to leisure wellbeing by satisfying a set of basic needs (benefits related to safety, health, economic, sensory, escape, and sensation) and growth needs (symbolic, aesthetic, moral, mastery, relatedness, and distinctiveness); and that (2) the perceived leisure benefits effects on leisure wellbeing are moderated by a set of corresponding personal characteristics (safety consciousness, health consciousness, price sensitivity, hedonism, escapism, sensation seeking, status consciousness, aestheticism, moral sensitivity, mastery seeking, extroversion, and need for distinction, respectively). See Fig. 1.

The first goal of this study is to empirically test the leisure benefits model published in the *Applied Research in Quality of Life* (Sirgy et al., 2017). As such, this study is designed to examine how each perceived benefit contributes to leisure wellbeing. The study tests the predictiveness of each perceived benefit in contributing to leisure wellbeing. Identifying the role of each benefit in leisure wellbeing could help individuals select and engage in leisure activities that can contribute significantly to leisure wellbeing and guide service providers to design leisure service activities to provide leisure benefits that have the potential to maximize leisure wellbeing.

The second goal of this study is to examine the role of personal characteristics (personality variables) on the effects of perceived benefits on leisure wellbeing. One can argue that certain personality variables moderate the predictive effects of perceived leisure benefits on leisure wellbeing. Specifically, perceived leisure benefits that match participants' personality are likely to exert a stronger effect on leisure wellbeing compared to benefits that do not match personality (Sirgy et al., 2017). Here, personality variables are treated as moderators—moderating the predictive effects of perceived leisure benefits on leisure wellbeing (the moderation model). See Fig. 2. Others may argue that personality variables may influence the perception of leisure benefits (e.g., Kuper et al., 2022). Here, personal characteristics may play a role as antecedents to perceived leisure benefits (the mediation model). In other words, personality may serve to motivate participants to perceive certain leisure benefits that match their personality. Figure 2 shows the moderation model vis-a-vis the mediation model. As such, our study will empirically test and compare the predictiveness of the moderation and mediation models. The findings of this study should provide a better understanding of the role of personality in perceived leisure benefits and leisure wellbeing.

## Conceptual Development

The conceptual development discussion is organized in three major sections. The first section describes the model in some detail and fleshes out the hypotheses pertaining to the direct effects of perceived leisure benefits on leisure wellbeing. The

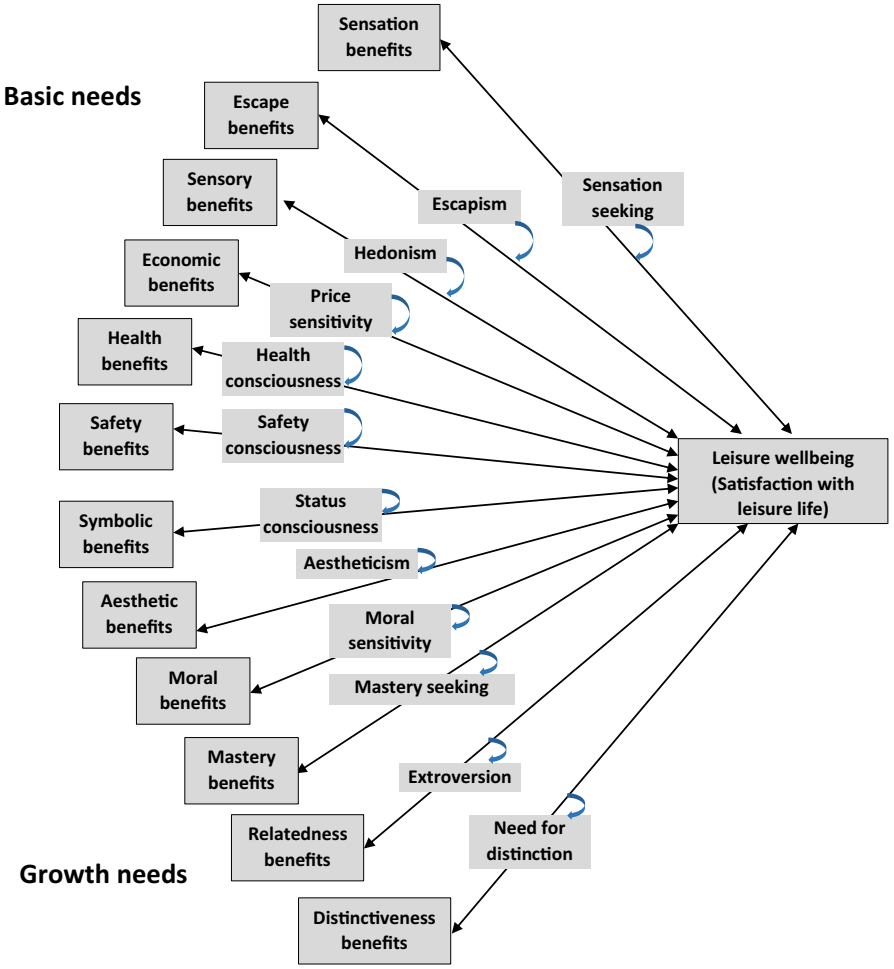


**Fig. 1** The Original Conceptual Model as Theorized by Sirgy et al. (2017)

second section describes the moderation effects of personality characteristics on the relationship between perceived leisure benefits and leisure wellbeing. As such, the moderating effects hypotheses are articulated. The third section describes the mediation model (i.e., a competing model to the moderation model). Personality characteristics are treated as antecedents to perceived leisure benefits, which in turn influences leisure wellbeing.

## The Leisure Benefits Theoretical Model

Leisure benefits is defined as the positive effects experienced by participants during leisure activities (Driver et al., 1991). Leisure benefits include functional

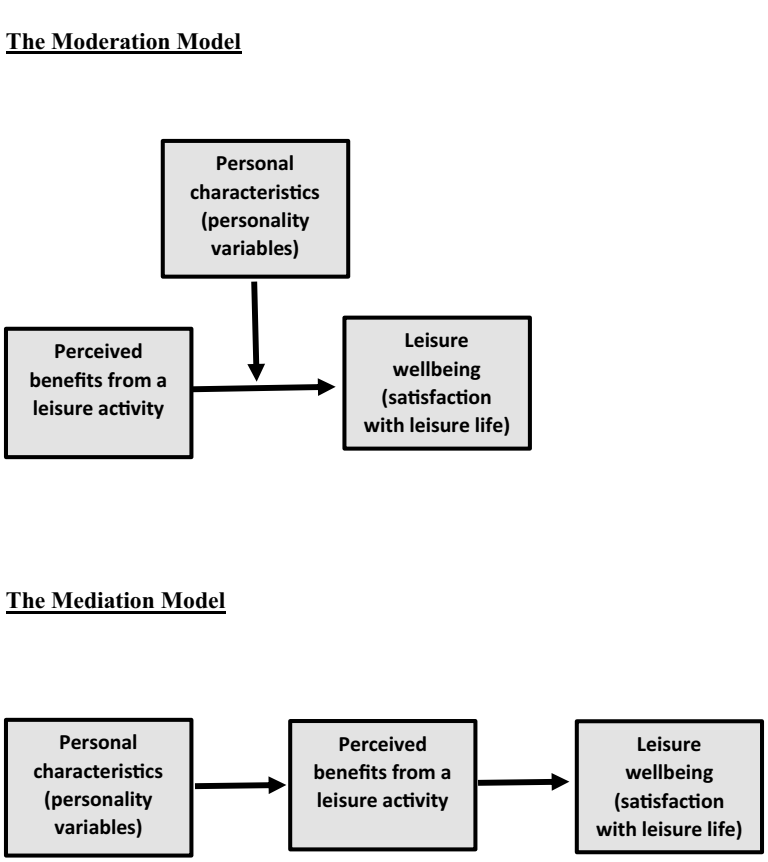


**Fig. 2** The Role of Personal Characteristics on Leisure Wellbeing

benefits, psychological benefits, and social benefits (Beard & Ragheb, 1980; Driver et al., 1991; Philipp, 1997). Leisure benefits influence wellbeing by satisfying various needs (Newman et al., 2014; Seligman, 2011).

The leisure benefits model, developed by Sirgy et al. (2017), proposes the following. First, perceived leisure benefits associated with a leisure activity tend to satisfy participants' needs, both basic and growth needs, and need satisfaction influences satisfaction with leisure life overall, which in turn influences subjective wellbeing. That is, a leisure activity contributes significantly to leisure wellbeing when it meets certain basic needs perceived (benefits related to safety, health, economic, sensory, escape, and/or sensation needs) and certain growth needs (perceived benefits related to symbolic, aesthetic, moral, mastery, relatedness, and/or distinctiveness needs).

Second, the leisure benefit model states that the positive relationship between perceived leisure benefits and leisure wellbeing is moderated by a set of personality characteristics. Amplification occurs when certain benefits of leisure activities match well with corresponding personality characteristics: safety consciousness,

health consciousness, price sensitivity, hedonism, escapism, sensation seeking, status consciousness, aestheticism, moral sensitivity, mastery seeking, extroversion, and need for distinctiveness, respectively (Sirgy et al., 2017). In the following section, we will examine the effect of each perceived benefit on leisure wellbeing classified into two major categories, namely benefits related to basic needs and those related to growth needs.

**Benefits Related to Basic Needs** Benefits extracted from a leisure activity can be viewed as related to basic needs and growth needs. Sirgy et al. (2017) used the commonly accepted distinction of basic versus growth needs (*a la* Maslow) to identify and categorize perceived leisure benefits. Specifically, benefits associated with a leisure activity that reflect satisfaction of basic needs include safety, health, economic, sensory, escape, and sensation needs. In contrast, benefits related to growth needs include symbolic, aesthetic, moral, mastery, relatedness, and distinctiveness needs.

This overarching hypothesis is broken down by benefits related to basic needs: safety, health, economic, sensory, escape, and sensation needs. A leisure activity that has a significant *safety benefit* is perceived by participants that engagement in that activity is safe–low probability that the participants' physical health is likely to be compromised. That is, participants are less likely to be exposed to risk, injury, and sickness as a direct result of engaging in that leisure activity. It is the individual's perception that the activity is safe and is not likely to result in an injury to oneself or others (Lee et al., 2015; Sirgy et al., 2017). *Health benefits* involve the perception that the leisure activity contributes significantly to one's health and longevity (Beard & Ragheb, 1980; Sirgy et al., 2017). Health benefits related to a leisure activity have the potential to contribute significantly to leisure wellbeing because engagement can lead to recovery from a health-related ailment. As such, engaging in a leisure activity promotes satisfaction with health life, which spills over to leisure life satisfaction and overall life satisfaction. *Economic benefits* refer to the extent to which engaging in a specific leisure activity is affordable and saves money compared to other activities–(e.g., price discount, reduced spending for the activity, perceived value for the money). Increased economic benefits associated with the leisure activity should increase positive affect (and decrease negative affect) in leisure life (Lee et al., 2015; Sirgy, et al., 2017). Specifically, economic benefits of a leisure activity (e.g., low cost, affordable prices) allow participants to engage in the leisure activity frequently, which in turn may increase leisure wellbeing. Economic benefits may also allow participants to engage in leisure activities without worrying much about monetary costs; as such, economic benefits may reduce stress and anxiety related to cost and overspending. *Sensory benefits* are pleasurable experiences caused by hedonic stimuli directly related to the leisure activity—stimuli that activate any one or more of the five senses: sight, sound, smell, taste, and touch. Leisure activities that provide sensory benefits contribute significantly to satisfaction in leisure life, which in turn plays a significant role in subjective wellbeing (Sirgy et al., 2017). *Escape benefits* associated with a leisure activity include freedom from control and freedom from work (Sirgy et al., 2017; Sonnentag & Fritz, 2007). Freedom from control refers to the opportunity afforded from the control of one's supervisor—for not having to follow orders from the boss. Freedom from work refers to the ability to rest, relax,

and have no obligation to perform work-related tasks. The authors made the case that subjective wellbeing derived from a leisure activity is a positive function of the individual's perception of the activity's ability to deliver freedom and escape benefits. Escape benefits serve to reduce stress and facilitate recovery. Escape benefits also allow leisure participants to build resources to overcome stress. *Sensation benefits* are another set of benefits associated with a leisure activity. Sensation benefits involve perceptions of the activity's ability to deliver much stimulation and thrill (Lee et al., 2015; Sirgy et al., 2017). As such, leisure wellbeing may be a positive function of the individual's perception of the activity's sensation benefits. A sensation benefit of a leisure activity serves to increase the intensity of positive affect induced by the activity. Based on the discussion, we will test the following hypothesis dealing with benefits related to basic needs.

H1: Leisure wellbeing is a positive function of perceptions that the leisure activity has significant benefits related to basic needs.
H1a: Leisure wellbeing is a positive function of the perception that the leisure activity has significant safety benefits.
H1b: Leisure wellbeing is a positive function of the perception that the leisure activity has significant health benefits.
H1c: Leisure wellbeing is a positive function of the perception that the leisure activity has significant economic benefits.
H1d: Leisure wellbeing is a positive function of the perception that the leisure activity has significant sensory benefits.
H1e: Leisure wellbeing is a positive function of the perception that the leisure activity has significant escape benefits.
H1f: Leisure wellbeing is a positive function of the perception that the leisure activity has significant sensation benefits.

**Benefits Related to Growth Needs** As previously described, benefits extracted from a leisure activity can be viewed as related to basic needs and growth needs. Sirgy et al. (2017) made the argument that benefits related to growth needs include symbolic, aesthetic, moral, mastery, relatedness, and distinctiveness needs.

This overarching hypothesis is broken down by individual benefits related to growth needs: symbolic, aesthetic, moral, mastery, relatedness, and distinctiveness needs. *Symbolic benefits* reflect the extent to which leisure activity symbolizes their ideal and actual self-image. Symbolic benefits associated with a leisure activity play a significant role in inducing positive affect. That is, symbolic benefits tend to enhance self-esteem, which in turn contributes to leisure life satisfaction (Sirgy & Su, 2000; Sirgy et al., 2017). Symbolic benefits also provide participants with the opportunity to feel they belong to a particular reference group, and such feelings contribute to leisure life satisfaction. *Aesthetic benefits* refer to appreciation of beauty. In general, an aesthetic benefit may signal appreciation in various forms of arts such as paintings, classical music, buildings, and landscapes. Aesthetic benefits associated with a leisure activity should increase positive affect and decrease negative affect in leisure life. Aesthetic benefits of a leisure activity serve to induce positive feelings by allowing participants to admire

and appreciate the beauty associated with certain aspects of the leisure activity (Beard & Ragheb, 1980; Sirgy et al., 2017). Moral behaviors associated with a leisure activity are based on self-transcendence value, which reflects decreases in attachment to one's own perspectives, viewpoints, truths, and self-construal, as well as extension of care, compassion, and concern toward others including both past and future generations. Moral benefits associated with a leisure activity serve to increase positive affect (and decrease negative affect) in leisure life (Lee et al., 2015; Sirgy et al., 2017). This occurs because moral benefits serve to enhance self-esteem, which in turn increases life satisfaction. That is, moral benefits play an important role in reinforcing a positive moral identity, which in turn enhances leisure life satisfaction. *Mastery benefits* refer to the degree to which a leisure activity challenges and provides learning opportunities for individuals to improve their skill and elevate their performance in that activity. Mastery benefits in leisure activities signal the overcoming of challenges, learning opportunities, and skill refinement. Mastery benefits associated with a leisure activity serve to increase positive affect (and decrease negative affect) in leisure life (Lee et al., 2015; Sirgy et al., 2017). Specifically, mastery benefits afford the individual to experience an enhanced sense competence, which in turn contributes to satisfaction with leisure life and overall subjective wellbeing. Many leisure activities often include pleasurable social interactions with others. This is what is referred to as *relatedness benefits*. Social leisure activities allow participants to connect with others and create and reinforce social bonds. A leisure activity perceived to help participants meet their social needs is an activity that has significant relatedness benefits (Kruger et al., 2015; Sirgy et al., 2017). The last benefit related to growth needs is *distinctiveness*. Everyone has a need to be unique and distinctive–desire to stand out from the crowd and to be recognized as special. This tendency to strive for uniqueness is manifested in all kinds of activities including leisure activities. As such, distinctiveness benefits refer to the degree to which the leisure activity provides feelings of uniqueness within the group and a feeling that the group is distinctive compared to other groups. Distinctiveness benefits associated with a leisure activity serve to increase positive affect in leisure life (Sheldon & Bettencourt, 2002; Sirgy et al., 2017). Specifically, a leisure activity contributes to leisure wellbeing by providing participants with an opportunity to express themselves in special ways.

Based on the preceding discussion, we will test the following hypothesis dealing with benefits related to growth needs.

H2: Leisure wellbeing is a positive function of perceptions that the leisure activity has significant benefits related to growth needs.
H2a: Leisure wellbeing is a positive function of the perception that the leisure activity has significant symbolic benefits.
H2b: Leisure wellbeing is a positive function of the perception that the leisure activity has significant aesthetic benefits.
H2c: Leisure wellbeing is a positive function of the perception that the leisure activity has significant moral benefits.
H2d: Leisure wellbeing is a positive function of the perception that the leisure activity has significant mastery benefits.

H2e: Leisure wellbeing is a positive function of the perception that the leisure activity has significant relatedness benefits.
H2f: Leisure wellbeing is a positive function of the perception that the leisure activity has significant distinctiveness benefits.

## Moderating Effects

Personality traits may moderate the effects of leisure benefits on leisure wellbeing. This is because personality traits influence perceived importance, value, and meaning of the leisure benefits. Leisure benefits are likely to produce a stronger effect on leisure wellbeing when the participants view the leisure benefits as personally important, relevant, and meaningful (Havitz & Dimanche, 1997; Kyle & Mowen, 2005; Sato et al., 2014). With respect to value, the model predicts that those who engage in value congruent activities will experience greater satisfaction in leisure life domain than those who engage in value incongruent activities (Oishi et al., 1999). In addition, leisure benefits may produce a greater impact on leisure wellbeing when the participants are strongly attached to the leisure goals (Sirgy, 2010) and place a greater value on the leisure benefits (Kuykendall et al., 2015).

In sum, the leisure benefits model posits that the positive relationship between leisure benefits (related to basic and growth needs) and leisure wellbeing is moderated by a set of personality characteristics. Amplification of the effects of perceived benefits on leisure wellbeing occurs when certain benefits of leisure activities match well with corresponding personality characteristics: safety consciousness, health consciousness, price sensitivity, hedonism, escapism, sensation seeking, status consciousness, aestheticism, moral sensitivity, competitiveness, sociability, and need for distinctiveness (Sirgy et al., 2017). Consistent with the previous section, we organize the discussion related to the moderation effects in two major sections, one related to basic needs, the other related to growth needs.

**Moderating Effects Related to Basic Needs** As previously discussed, the perceived benefits of a leisure activity related to basic needs are benefits related to safety, health, economic, sensory, escape, and sensation seeking. The corresponding personality moderators related to those perceived benefits are safety consciousness, health consciousness, price sensitivity, hedonism, escapism, and sensation seeking, in that order.

The moderator related to safety benefits is *safety consciousness*. Sirgy et al. (2017) have theorized that safety benefits increase leisure wellbeing for participants with high safety-consciousness. Safety consciousness is defined as a positive attitude and awareness toward acting safely in general (Westaby & Lee, 2003). Those who are high on safety consciousness tend to place much importance on safety benefits. They take precautions to reduce the likelihood of injury (Conrad et al., 1996). Thus, safety benefits contribute to leisure wellbeing much more so for high than low safety-consciousness individuals. Those who might be highly safety-conscious and perceive the leisure activity to be unsafe are not likely to experience significant gains in leisure wellbeing. Conversely, those who are safety conscious are likely to experience negative affect when the leisure activity is not safe.

The moderator related to health benefits is *health consciousness*. Health consciousness refers to individuals' emphasis on health behaviors (Baker & Crompton, 2000; Jayanti & Burns, 1998). It is defined as an individual's ecological and self-awareness of healthy lifestyles. That is. health consciousness refers to an individual's concern, and interest in information about physical, emotional, and social health (Furnham & Forey, 1994). Individuals who exhibit a high degree of health consciousness want to improve and maintain their health and wellbeing (Kraft & Goodell, 1993; Newsom et al., 2005). Sirgy et al. (2017) theorized that the positive effect of health benefits on leisure wellbeing is stronger for individuals high (than low) in health consciousness. Health-conscious individuals are sensitive to health benefits, resulting in amplifying the effect of health benefits perceptions on leisure wellbeing.

The moderator related to the economic benefits is *price sensitivity* (or frugality). Price sensitivity is an individual difference describing how individual consumers react to price levels and changes in price levels (Wakefield & Inman, 2003). It also refers to the level of increase in price that would induce withdrawal from an activity (Backman & Crompton, 1991). Frugality is a unidimensional individual trait characterized by the degree to which individuals are both restrained in acquiring and in resourcefully using economic goods and services to achieve long-term goals (Lastovicka et al., 1999). In other words, frugal individuals are thrifty in their day-to-day product purchases and consumption habits. They tend to constrain their purchases overall and avoid purchasing consumer goods that are higher priced in favor of lower priced options (Pettit et al., 1985). They reduce their purchases of discretionary products when prices increase significantly (Rose et al., 2010). Frugal individuals spend conservatively because they experience pleasure from saving, rather than suffering pain from deprivation (Rick et al., 2007). Frugal consumers are price sensitive (Monroe, 1973). Price sensitivity refers to consumers' sensing and reacting to differences in prices of products. In contrast, the less-frugal individuals are willing to pay higher prices for the same goods (Foxall & James, 2003; Shimp et al., 2004). Sirgy et al. (2017) theorized that the positive effect of economic benefits on leisure wellbeing is stronger for frugal individuals than those who are less frugal. In sum, frugal individuals are sensitive to economic benefits, resulting in amplifying the effect of economic benefits on leisure wellbeing.

The moderator related to the sensory benefits is *hedonism* (or sensory sensitivity). Individuals are different in their response to sensory benefits. Hedonism refers to the degree to which individuals are sensitive to sensory stimuli. That is, sensory sensitivity reflects individual's awareness of sensory stimuli (Sobocko & Zelenski, 2015). Some sensory-sensitive individuals enhance their wellbeing by using their sensory sensitivity to pursue and further develop their interests (Aron et al., 1997). They tend to experience high hedonic value with leisure activities (Ponsignon et al., 2021). The reverse is asceticism, which involves the moral rejection of pleasure and abstinent behavior (Veenhoven, 2003). Activities that lack in sensory appeal are not likely to contribute significantly to satisfaction in leisure life and subjective wellbeing for the sensory types than non-sensory individuals (Sirgy et al., 2017). Individuals with a high sensory sensitivity are likely to experience the richness of sensory benefits of a leisure activity. As such, they are likely to be much more influenced by the sensory benefit of the leisure activity spilling over to leisure life satisfaction.

The moderator related to the escape benefits is *escapism.* Some individuals' leisure wellbeing is likely to be influenced by escape benefits of a leisure activity than others. These individuals are high on escapism. Escapism is defined as an experience that provides dissociation from an unpleasant reality; the experience is not necessarily gratifying in itself, but it enables self-empowerment and emotional distance from the unpleasant reality (Conrad & Caldwell, 2006). It is an emotion-focused strategy for seeking temporary relief in situations when one gets overwhelmed by external stressors in his environment (Kuo et al, 2016; Loureiro et al., 2021). That is, escapism refers to individual proclivity for freedom and escape (Pine et al., 1999). Individuals with a high escapism tend to be fully immersed in the leisure experience and manage to temporarily escape from their reality. Escapists become truly engaged in the leisure activity that has escape benefits compared to non-escapists (Ponsignon et al., 2021). Sirgy et al. (2017) have argued that leisure activities that have significant escape benefits are likely to contribute significantly to satisfaction in leisure life and subjective wellbeing for individuals with high escapism than those with low escapism.

The moderator related to the sensation benefits is *sensation seeking*. Sensation seeking is defined as a trait describing the tendency to seek novel, varied, complex, and intense sensations and experiences and the willingness to take risks for the sake of such experience (Zuckerman, 1994). Sensation seeking a trait where an individual is willing to take certain level of risks to enjoy an exciting experience (Schroth & McCormack, 2000; Stephenson et al., 2003). Sensation-seeking has been used to explain a wide variety of behaviors and has been found to be positively correlated with risk behavior, dislike of structured and formal situations, adventure travel, tendency to avoid repetition, liking of intense experiences, proneness to boredom under restrained and repetitive situations, and tendency toward disinhibition (Galloway & Lopez, 1999).

Sirgy et al. (2017) have argued that the positive effect of sensation seeking benefits on leisure wellbeing could be moderated by the sensation-seeking trait. Sensation seekers who perceive a leisure activity to be lacking in the sensation/thrill dimension are not likely to experience significant gains in leisure wellbeing (Sirgy et al., 2017). This may be due to the possibility that sensation seekers are likely to experience intense and novel positive affect from sensation benefits, resulting in high satisfaction in the leisure life.

Based on the preceding discussion, we will test the following hypothesis dealing with the moderating effects related to basic needs.

H3: The effect of lower-order leisure benefits on leisure wellbeing is stronger for those with matching personality characteristics.
H3a: The effect of perceived safety benefits of a leisure activity on leisure wellbeing is likely to be stronger for high than low safety-conscious individuals.
H3b: The effect of health benefits of a leisure activity on leisure wellbeing is likely to be stronger for high than low health-conscious individuals.
H3c: The effect of economic benefits of a leisure activity on leisure wellbeing is likely to be stronger for the price-sensitive participants relative to their nonprice-sensitive counterparts.

H3d: The effect of sensory benefits of a leisure activity on leisure wellbeing is likely to be stronger for hedonistic individuals relative to the non-hedonistic.
H3e: The effect of escape benefits of a leisure activity on leisure wellbeing is likely to be stronger for escapists than the non-escapists.
H3f: The effect of sensation benefits of a leisure activity on leisure wellbeing is likely to be stronger for sensation seekers than the non-sensation seekers.

**Moderating Effects Related to Growth Needs** As previously discussed, the perceived benefits of a leisure activity related to growth needs are benefits related to symbolic, aesthetics, moral, mastery, relatedness, and distinctiveness. The corresponding personality moderators related to those perceived benefits are status consciousness, aestheticism, moral sensitivity, mastery seeking, extroversion, and need for distinction, in that order.

The moderator related to the symbolic benefits is *status consciousness.* Status consumption is defined as the motivational process by which individuals strive to improve their social standing through the conspicuous consumption of goods or services that confer and symbolize status both for the individual and surrounding significant others (Eastman et al., 1999). Status conscious consumers are those who gain their social standing by consuming products that communicate status and for this they get involved in status consumption (Eastman et al., 1999; Wong & Ahuvia, 1998). Sirgy et al. (2017) have theorized that the positive association between symbolic benefits and leisure wellbeing could be moderated by participants' status consciousness. That is, status-conscious participants are more likely than others to be affected by a leisure activity that reflects high status. This may occur because status-conscious individuals are likely to be sensitive to the symbolic benefits and thus are likely to experience greater spillover of positive affect from symbolic benefits to leisure life.

The moderator related to aesthetic benefits is *aestheticism.* Aestheticism is a facet of openness to experience, a personality trait. Aestheticism in a broad sense means a devotion to beauty as found in the arts and in whatever attractive in the world around us (Johnson, 2017).

Individuals with high levels of aestheticism tend to appreciate artwork, music, and natural beauty–they are strongly moved by aesthetic or artistic aspects of the perceived object (Connelly et al., 2014). Leisure activities that have significant aesthetics/beauty benefits are likely to contribute significantly to satisfaction in leisure life and subjective wellbeing for those who are more aesthetic-oriented than those who are less so (Sirgy et al., 2017). Aesthetic individuals are sensitive to perceptual cues related to beauty; they experience a greater positive spillover of aesthetic benefits to satisfaction with leisure life, more so than the non-aesthetic individuals.

The moderator related to moral benefits is *moral sensitivity*. Moral sensitivity refers to the ability to identify and ascribe importance to moral issues when they arise in a specific context such as the workplace (Jordan, 2009; Rest, 1986; Schmocker et al., 2021). Moral or ethical sensitivity refers to a broader cognizance of moral issues. It is typically measured through exposure to a set of moral issues and subsequently captures the individual's ability to recognize and consider a set or range of moral issues (Reynolds & Miller, 2015). Moral sensitivity involves

envisaging whether a course of action can violate ethical standards or can harm others. Sirgy et al. (2017) have argued that leisure activities that have significant moral benefits are likely to contribute significantly to leisure wellbeing for the morally sensitive than the morally non-sensitive individuals. Morally sensitive individuals are likely to experience greater spillover of positive affect related to moral benefits of a leisure activity unto satisfaction with leisure life. They may experience a positive moral identity and a boost of self-esteem when they experience moral benefits related to a leisure activity.

The moderator related to mastery benefits is *mastery seeking*. Mastery seeking is defined as the typical behavior pattern of those who (a) engage in challenging tasks, (b) are persistent and remain focused even when they face failure, and (c) are intrinsically motivated and retain future expectations of success (O'Connor & Jackson, 2008; Sorrenti et al., 2018). In other words, mastery orientation reflects the extent to which people are particularly sensitive to cues related to mastery, competence, and self-efficacy in any type of activity, including leisure activities. Mastery experiences encompass activities that challenge individuals and provide learning opportunities. Mastery is a distinct mechanism from autonomy in that mastery focuses on the efforts put into honing one's skills or achieving a new level of success in a leisure activity (Newman et al., 2014). Leisure activities that have significant mastery benefits are likely to contribute significantly to satisfaction with leisure life and subjective wellbeing much more so for mastery-seeking individuals than those who are non-mastery seeking (Sirgy et al., 2017). Individuals who are mastery seeking tend to commit to leisure activities despite difficulties; mastery benefits tend to motivate their engagement further in the face of initial failure. In turn, increased leisure engagement is likely to ensure satisfaction with leisure life.

The moderator related to relatedness benefits is *extroversion*. Extroversion is a personality trait that involves four dimensions: affiliation, venturesome, ascendance, and social interactions (Lucas et al., 2000). Specifically, extroverts tend to express warmth to their family (affiliation); they do exciting things with friends (venturesome); they tend to be more involved in organizing and direct groups of people (ascendance); and they tend to be more in engaged in social interactions (social interactions). Extraverts tend to use their leisure time for more activating activities and extraversion is positively associated with leisure pursuits (Hills & Argyle, 1998; Lu & Hu, 2005). Leisure activities that have significant relatedness benefits are likely to contribute significantly to satisfaction with leisure life and subjective wellbeing for extroverts more so than for introverts (Sirgy et al., 2017). This is because extroverts do exciting things with friends; they organize groups of people to hang out with and thus are likely to engage in diverse leisure activities with them; and they are more engaged in social interactions resulting in frequent experiences in social life, which in turn spills over to leisure life.

The moderator related to distinctiveness benefits is *need for distinction* (or uniqueness). Need for uniqueness refers to individuals' pursuit of the goal to be different relative to other, which is usually achieved through the acquisition, utilization, and disposition of consumer goods for the purpose of developing and enhancing one's personal and social identity (Tian & McKenzie, 2001; Tian et al, 2001). Individuals with a high need for uniqueness tend to engage in consumer counter-conformity behaviors by making creative (and

possibly unpopular) with the specific goal of avoiding the appearance of being similar to others (Tian & McKenzie, 2001). The authors (Sirgy et al., 2017) have argued that leisure activities that have significant distinctiveness benefits are likely to contribute significantly to satisfaction in leisure life and subjective wellbeing, especially for those are seeking distinctiveness than those who are not. Individuals with a strong need for distinction are likely to engage in diverse leisure activities that are less popular and new; and their engagement in diverse activities is likely to contribute to leisure wellbeing. Based on the preceding discussion, we will test the following hypothesis related to the moderating effects related to higher-order leisure benefits.

H4: The effect of higher-order leisure benefits on leisure wellbeing is stronger for those with matching personality characteristics.
H4a: The effect of symbolic benefits of a leisure activity on leisure wellbeing is likely to be stronger for high than low status-conscious participants.
H4b: The effect of aesthetic benefits of a leisure activity on leisure wellbeing is likely to be stronger for high than low aestheticism participants.
H4c: The effect of moral benefits of a leisure activity on leisure wellbeing is likely to be stronger for morally sensitive participants than those who are morally insensitive.
H4d: The effect of mastery benefits of a leisure activity on leisure wellbeing is likely to be stronger for mastery-seeking participants than those who are not mastery seeking.
H4e: The effect of relatedness benefits of a leisure activity on leisure wellbeing is likely to be stronger for extroverts than introverts.
H4f: The effect of distinctiveness benefits of a leisure activity on leisure wellbeing is likely to be stronger for those who are high than low in need for uniqueness.

### Mediating Effects

The mediation model of leisure benefits posits that personality has a direct impact on leisure benefit, which in turn positively influences leisure wellbeing. That is, the mediation model, argues that certain personality factors lead leisure participants to be more sensitive to cues that match their personality, deriving greater benefits through satisfaction of certain leisure benefits, which in turn contribute to their leisure wellbeing.

What is the theoretical mechanism of the mediation model? We make the following argument. First, the mediation model advocates a direct effect of personality characteristics on leisure activity choice and engagement. Specifically, the model posits that personality characteristics (e.g., individual differences in the tendency to enact certain leisure activities) are directly associated with leisure interests (Barnett, 2013; Kandler & Piepenburg, 2020; Wilkinson & Hansen, 2006) and leisure engagement (Kandler & Piepenburg, 2020; Lu et al., 2005; Sander et al., 2021; Stephan et al., 2014). In other words, personality traits will have a direct effect on the perception of leisure benefits because personality traits have a

direct influence on the choice and engagement of leisure activities. Personality traits predispose people to choose certain situations and self-regulatory behaviors, which in turn influences wellbeing (Tkach & Lyubomirsky, 2006). Personality traits influence how individuals make use of their leisure time, which in turn influences the selection of leisure activities (Hills & Argyle, 1998; Kraaykamp & Van Eijck, 2005; Melamed et al., 1995). In addition, personality trait influences behavioral engagement on the leisure activities, which in turn influences perception of leisure benefits (Kuykendall et al., 2015; Xu et al., 2019). Second, leisure benefits resulting from leisure activities and engagement have a direct influence on leisure wellbeing. The mediation model makes the case that personality characteristics do not moderate the leisure benefits/wellbeing relationship. A case in point is the personality activity wellbeing (PAW) framework (Kuper et al., 2022) which asserts that personality traits influence leisure wellbeing as mediated by leisure engagement and the experience of leisure benefits from the leisure activity directly.

The mediating roles of leisure benefits in the relationship between personality factors and leisure wellbeing is shown in Fig. 2. Consistent with the previous sections, we organize the mediation effects discussion in two major sections, one related to basic needs, the other related to growth needs.

**Mediating Effects Related to Basic Needs** Consistent with our previous discussion, the perceived benefits of a leisure activity related to basic needs are benefits related to safety, health, economic, sensory, escape, and sensation. The corresponding personality mediators related to those perceived benefits are safety consciousness, health consciousness, price sensitivity, hedonism, escapism, and sensation seeking, in that order. Using this theoretical rationale, we will be testing the following hypotheses on mediating effects related to basic needs:

H5: Personality characteristics will have a direct influence on low-order leisure benefits, which in turn may increase leisure wellbeing.
H5a: Individuals high on safety consciousness are likely to experience increased leisure wellbeing by focusing and accentuating cues related to safety benefits of leisure activities, much more so than participants low on safety consciousness.
H5b: Individuals high on health consciousness are likely to experience increased leisure wellbeing by focusing and accentuating cues related to health benefits of leisure activities, much more so than participants low on health consciousness.
H5c: Individuals high on price sensitivity are likely to experience increased leisure wellbeing by focusing and accentuating cues related to economic benefits of leisure activities, much more so than participants low on price sensitivity.
H5d: Individuals high on hedonism are likely to experience increased leisure wellbeing by focusing and accentuating cues related to sensory benefits of leisure activities, much more so than participants low on hedonism.
H5e: Individuals high on escapism are likely to experience increased leisure wellbeing by focusing and accentuating cues related to escape benefits of leisure activities, much more so than participants low on escapism.
H5f: Individuals high on sensation seeking are likely to experience increased leisure wellbeing by focusing and accentuating cues related to sensation benefits of leisure activities, much more so than participants who are low on sensation seeking.

**Mediating Effects Related to Growth Needs** Similarly, the perceived benefits of a leisure activity related to growth needs are benefits related to symbolism, aesthetics, moral, mastery, relatedness, and distinctiveness. The corresponding personality mediators related to those perceived benefits are status consciousness, aestheticism, moral sensitivity, mastery seeking, extroversion, and need for distinction, in that order. We apply the same theoretical rationale to growth needs—the rationale applied we used in relation to the mediating effects of personality characteristics related to basic needs. As such, we will be testing the following hypotheses related to mediating effects related to growth needs:

H6: Personality characteristics will have a direct influence on higher-order leisure benefits, which in turn may increase leisure wellbeing.
H6a: Individuals high on status consciousness are likely to experience increased leisure wellbeing by focusing and accentuating cues related to symbolic benefits of leisure activities, much more so than participants low on status consciousness.
H6b: Individuals high on aestheticism are likely to experience increased leisure wellbeing by focusing and accentuating cues related to aesthetic benefits of leisure activities, much more so than participants low on aestheticism.
H6c: Individuals high on moral sensitivity are likely to experience increased leisure wellbeing by focusing and accentuating cues related to moral benefits of leisure activities, much more so than participants low on moral sensitivity.
H6d: Individuals high on mastery seeking are likely to experience increased leisure wellbeing by focusing and accentuating cues related to mastery benefits of leisure activities, much more so than participants low on mastery seeking.
H6e: Individuals high on extroversion individuals are likely to experience increased leisure wellbeing by focusing and accentuating cues related to relatedness benefits of leisure activities, much more so than participants low on extroversion.
H6f: Individuals high on need for distinction are likely to experience increased leisure wellbeing by focusing and accentuating cues related to distinctiveness benefits of leisure activities, much more so than participants low on need for distinction.

## Method

To reiterate, the goal of this study is to test the predictiveness of each perceived benefits on leisure wellbeing and to gain a better understanding regarding the moderating versus mediating role of personality variables in that context. The three variations of the conceptual model (benefits, moderation, and mediation) were tested using structural equation modeling (main effect testing), Two-way ANOVA (moderation effect testing) and Mediation Analysis of Process Macro (mediation effect testing) (Hayes, 2022; Version 3.3).

Data were collected by a research firm in South Korea and the survey questionnaire was translated from English into Korean and then back translated by two university professors. The questionnaire was then pre-tested using a sample of twenty graduate students to ensure meaning equivalence. As the questionnaire was

developed in the U.S., the authors evaluated construct equivalence at various stages of the survey development process (Hult et al., 2008).

The survey was administered online to the panel members of the research firm in 2022 based on the convenience sampling method. That is, respondents who have been regularly participating in major leisure activities (at least for more than three months) were randomly recruited proportional to different age groups and gender, providing 502 usable responses. In this study, major leisure activities were limited to those that require physical involvement such as leisure time sports (soccer, golf, jogging, yoga), leisure travel, and playing musical instruments. Passive leisure activities such as watching TV, surfing the internet, and playing video games were excluded from the survey. Survey participants received monetary compensation ($2) as participation fee.

As the demographic profile of respondents shows, there was considerable variability in terms of age, gender, marital status, type of employment, major leisure activity types, and net monthly household income (see Table 1). Respondents have been participating in their major leisure activity for 26.8 months on average. They also reported that they spend, on the average, 17.5 h and $140 per month engaged in their primary leisure activity.

## Constructs and Measures

Respondents were asked to answer questions about their major leisure activity in the following order (see below). Their responses were captured on a 7-point rating scales varying from "No, not at all" (1) to "Yes, very much so" (7).

**Leisure Benefits Related to Basic Needs** Basic needs-related leisure benefits include safety, health, economic, sensory, escape, and sensation seeking. *Safety benefits* of a leisure activity refers to the extent to which the leisure activity is perceived as safe and unlikely to result in an injury to oneself or others. Lee et al.'s (2015) safety benefit measure was used to capture this construct (e.g., "This leisure activity is safe") (Cronbach's Alpha = 0.858).

*Health benefits* of a leisure activity refers to the extent to which the leisure activity contributes significantly to one's health and longevity. Beard and Ragheb's (1980) safety benefits measure was used to capture this construct (e.g., "My leisure activities are physically challenging," "I do leisure activities which develop my physical fitness") (Cronbach's Alpha = 0.928).

*Economic benefits* of leisure activity refers to the extent to which the leisure activity is justified by the money spent (acquisition utility), as well as the money spent on the activity is a good deal compared with the expected cost (transaction utility). Lee et al.'s (2015) economic benefit measure was used to capture this construct (e.g., "Compared to other leisure activities, participating in this leisure activity is financially affordable") (Cronbach's Alpha = 0.846).

*Sensory benefits* of leisure activity refer to the extent to which the leisure activity or the activity environment pleases one's physical senses (sight, sound, touch,

**Table 1** Sample Characteristics ($N = 502$)

| **Age (Avg. 44.7 years old)** | | **Gender** | | **Educational status** | |
|---|---|---|---|---|---|
| 25–29 years | 20.1% | Female | 49.8% | High school graduates | 18.3% |
| 30–39 years | 19.9% | Male | 50.2% | College graduates | 12.7% |
| 40–49 years | 19.9% | **Marital status** | | University graduates | 59.2% |
| 50–59 years | 19.9% | Married | 57.6% | Graduate school graduates | 9.8% |
| 60–69 years | 20.1% | Single | 36.1% | **Net monthly household income** | |
| **Major leisure activity type** | | Else | 6.4% | Less than $1,000 | 2.4% |
| Sports | 71.1% | **Employment** | | $1,000-$2,000 | 7.2% |
| Leisure travel | 15.3% | Employed | 68.7% | $2,000-$3,000 | 18.9% |
| Arts and cultural activities | 8.6% | Student | 3.2% | $3,000-$4,000 | 18.7% |
| Else | 5.0% | Housewife | 15.1% | $4,000-$5,000 | 15.5% |
| **Companion** | | Not employed | 13% | More than $5,000 | 37.3% |
| As a club member | 14.3% | | | | |
| With friends | 26.7% | | | | |
| Individually | 59.0% | | | | |

In this study, major leisure activity refers to one's primary leisure activity that requires physical involvement with regular participation for at least past three months

or scent). Measurement items were developed based on Sirgy et al.'s (2017) operational definition of sensory benefit (e.g., "In general, the leisure activity pleases my physical senses–sight, sound, touch, scent") (Cronbach's Alpha = 0.880).

*Escape benefits* of leisure activity refers to the extent to which the leisure activity allows individuals to escape stress from work and or other stressful situations. Sonnentag and Fritz's (2007) Recovery Experience Questionnaire was adopted to capture this construct (e.g., "This leisure activity allows me to distance myself from the demands of work") (Cronbach's Alpha = 0.887).

*Sensation benefits* of leisure activity refers to the extent to which the leisure activity allows individuals to experience a high level of stimulation and thrill. Lee et al.'s (2015) sensation benefits measure was used to capture this construct (e.g., "This leisure activity helps me get involved with exciting activities") (Cronbach's Alpha = 0.863).

**Growth needs related leisure benefits** Growth needs related leisure benefits include symbolic benefit, aesthetic benefit, moral benefit, mastery benefit, relatedness benefit, and distinctiveness benefit. *Symbolic benefits* of leisure activity refers to the extent to which the leisure activity is consistent with one's self-concept. Sirgy and Su's (2000) self-congruity measure was used to capture this construct (e.g., "This leisure activity reflects how I see myself") (Cronbach's Alpha = 0.903).

*Aesthetic benefits* of leisure activity refers to the extent to which the leisure activity and/or its environment is aesthetically pleasing. Beard and Ragheb's (1980) aesthetic benefits measure was used to capture this construct (e.g., "The areas or places where I engage in my leisure activities are well designed") (Cronbach's Alpha = 0.852).

*Moral benefits* of leisure activity refers to the extent to which the leisure activity contributes to the welfare of others. Lee et al.'s (2015) moral benefit measure was used to capture this construct (e.g., "Through this leisure activity, I was able to contribute to my community") (Cronbach's Alpha = 0.653).

*Mastery benefits* of leisure activity refers to the extent to which the leisure activity contributes to the enhancement of one's skill level. Lee et al.'s (2015) mastery benefit measure was used to capture this construct (e.g., "Through this leisure activity, I feel that I was able to sharpen my skill of doing this activity") (Cronbach's Alpha = 0.871).

*Relatedness benefits* of leisure activity refers to the extent to which the leisure activity contributes to socializing and connecting with others. Kruger et al.'s (2015) relatedness goal measure was adopted to capture this construct (e.g., "Through this leisure activity, I was able to build strong relationships with others") (Cronbach's Alpha = 0.913).

*Distinctiveness benefits* of leisure activity refers to the extent to which the leisure activity contributes to establishing uniqueness in the eyes of others. Sheldon and Bettencourt's (2002) psychological need satisfaction measure was used to capture this construct (e.g., "How much do you feel like you stand out within this group?") (Cronbach's Alpha = 0.89). See the full set of survey items pertaining to this construct in Appendix 1.

**Personality Characteristics** There are twelve personality traits corresponding to each leisure benefit dimension. *Safety consciousness* refers to a positive attitude and awareness toward acting safely in general. Westaby and Lee's (2003) safety consciousness measure was used to capture this construct (e.g., "I often find myself making sure that other people do things that are safe and healthy") (Cronbach's Alpha = 0.856).

*Health consciousness* refers to individuals' emphasis on healthy behaviors. Jayanti and Burns' (1998) health care behavior measure was used to capture this construct (e.g., "I am concerned about my health all the time") (Cronbach's Alpha = 0.863).

*Price sensitivity* refers to consumers' senses and reactions to differences in prices of products. Wakefield and Inman's (2003) price-sensitivity measure was used to capture this construct (e.g., "I am sensitive to differences in prices").

*Hedonism* refers to the degree to which the individual is aware aesthetic stimuli. Smolewska et al. (2006) sensory-processing sensitivity measure was used to capture this construct (e.g., "Do you seem to be aware of subtleties in your environment?") (Cronbach's Alpha = 0.835).

*Escapism* refers to individual proclivity for freedom and escape. Loureiro et al.'s (2021) escapism measure was used to capture this construct (e.g., "Leisure experiences allowed me to forget some real-life problems") (Cronbach's Alpha = 0.818).

*Sensation seeking* refers to the extent to which one seeks novel, varied, complex, and intense sensations and experiences and the willingness to take risks for the sake of such experience. Stephenson et al.'s (2003) brief measure of sensation seeking was used to capture this construct (e.g., "I would like to explore strange places"; "I

like new and exciting experiences, even if I have to break the rules") (Cronbach's Alpha = 0.864).

*Status consciousness* refers to the extent to which individuals are interested in their social status. Eastman et al.'s (1999) status consumption measure was adopted to capture this construct (e.g., "I am interested in new leisure activity with status") (Cronbach's Alpha = 0.942).

*Aestheticism* is a facet of openness to experience. Connelly et al.'s (2014) openness to experience measure was adopted to capture this construct (e.g., "I value artistic, aesthetic experiences") (Cronbach's Alpha = 0.887).

*Moral sensitivity* refers to the extent to which the individual has moral concerns as top of mind in daily life. Reynolds (2008)'s moral attentiveness measure was adopted to capture this construct (e.g., "I regularly think about the ethical implications of my decisions") (Cronbach's Alpha = 0.841).

*Mastery seeking* reflects the extent to which the individual is highly focused on experiences related to mastery, competence, and self-efficacy. O'Connor and Jackson's (2008) mastery orientation measure was used to capture this construct (e.g., "I like to be challenged") (Cronbach's Alpha = 0.774).

*Extroversion* is a personality trait focusing on the need to interact and socialize with others. Lucas et al.'s (2000) extroversion measure was used to capture this construct (e.g., "I like doing exciting things with people more than just talking quietly") (Cronbach's Alpha = 0.896).

*Need for distinction* refers to individuals' pursuit of being different relative to others. The goal of being different is usually achieved through the acquisition, utilization, and disposition of consumer goods for the purpose of developing and enhancing one's personal and social identity. Tian et al.'s (2001) need for uniqueness scale was used to capture this construct (e.g., "I engage in this leisure activity to create a more distinctive personal image") (Cronbach's Alpha = 0.858).

**Leisure wellbeing** Walker and Kono's (2018) leisure life satisfaction measure was adopted to capture this construct (e.g., "I am satisfied with my leisure life overall") (Cronbach's Alpha = 0.87). See all the measurement items in Appendix 1.

## Results

The results section reports findings related to testing of measurement model, followed by hypotheses testing.

### Testing the Measurement Model

To examine the psychometric properties of the measures used in this study, we conducted a confirmatory factor analysis (CFA) (see Table 2). Results showed that there is a good fit to the data [$\chi^2$ ($p$-value) = 1,108.57 (0.00), $df$ = 515; CFI = 0.954, NNFI = 0.944, GFI = 0.893, RMSEA = 0.046]. Furthermore, all factor loadings were

significant, the composite reliabilities of all constructs were greater than usual 0.70 cutoff, except for the moral benefits construct. Although AVE (average variance extracted) for moral benefits is less than the threshold of 0.5, convergent validity of the construct is adequate if composite reliability is higher than 0.6 (Fornell & Larcker, 1981). In sum, these results demonstrate evidence of convergent validity and reliability of the measures.

Regarding discriminant validity, the square root of the AVE of each construct should be larger than the correlation of the specific construct with any of the other constructs in the model (Chin, 1998). Table 3 shows that the squared root of the AVEs for constructs were indeed greater than correlations with other constructs, demonstrating discriminant validity (The Pearson correlation matrix of the entire variables is shown in Appendix 3).

## Hypothesis Testing

In this section we will report the results of the hypothesis testing in relation to the perceived benefits (i.e., main effects), the moderation of the personality characteristics (i.e., interaction effects), and the mediation of the personality characteristics (i.e., mediation effects).

**Direct Effects of Leisure Benefits on Leisure Wellbeing** The predictive effects of perceived leisure benefits on leisure wellbeing was tested using multiple regression analysis by benefits group (a set of basic needs related benefits and a set of growth needs-related benefits). Gender, age, marital status, and monthly household income of leisure participants were used as control variables.

H1 posits that leisure wellbeing can be predicted by the leisure activity's benefits related to basic needs. The results indicate that four out of six perceived basic needs benefits registered a significantly positive effect on leisure wellbeing (H1a: safety benefits = 0.083, $p < 0.05$; H1b: health benefits = 0.106, $p < 0.05$; H1c: economic benefits = -0.036, n.s.; H1d: sensory benefits = 0.03, n.s; H1e: escape benefits = 0.365, $p < 0.05$; and H1f: sensation benefits = 0.218, $p < 0.05$). Overall, the results provide moderate-to-strong support for H1 (see Table 4).

H2 states that leisure wellbeing can be predicted by the leisure activity's benefits related to growth needs. The results indicate that five out of six perceived growth needs benefits registered a significantly positive effect on leisure wellbeing (H2a: symbolic benefits = 0.099, $p < 0.1$; H2b: aesthetic benefits = 0.208, $p < 0.05$; H2c: moral benefits = 0.161, $p < 0.05$; H2d: mastery benefits = 0.243, $p < 0.05$; H2e: relatedness benefits = 0.083, $p < 0.1$; and H2f: distinctiveness benefits = -0.087, n.s). Overall, the results provide moderate-to-strong support for H2 (see Table 5).

As a supplementary analysis, we calculated composite scores for the basic need benefits as well as for the growth basic need benefits. We then tested the effects of the composite of basic need benefit and the composite of growth need benefits on leisure wellbeing. The regression result indicates that both composite benefits dimensions have a positive and significant predictive effect on leisure wellbeing (composite

**Table 2** Confirmatory Factor Analysis

| Variables | Items | Coefficient | t-value | Alpha | Average Variance Extracted | Composite Reliability |
|---|---|---|---|---|---|---|
| Safety benefits | B11 | 0.770 | 19.283 | 0.858 | 0.678 | 0.863 |
| | B12 | 0.875 | 22.970 | | | |
| | B13 | 0.821 | 21.001 | | | |
| Health benefits | B22 | 0.914 | 26.382 | 0.928 | 0.857 | 0.947 |
| | B23 | 0.954 | 28.403 | | | |
| | B24 | 0.908 | 26.076 | | | |
| Economic benefits | B31 | 0.751 | 18.541 | 0.846 | 0.658 | 0.852 |
| | B32 | 0.797 | 20.041 | | | |
| | B33 | 0.880 | 22.954 | | | |
| Sensory benefits | B41 | 0.796 | 20.676 | 0.88 | 0.715 | 0.882 |
| | B42 | 0.862 | 23.305 | | | |
| | B43 | 0.876 | 23.88 | | | |
| Escape benefits | B51 | 0.877 | 24.059 | 0.887 | 0.724 | 0.887 |
| | B52 | 0.820 | 21.691 | | | |
| | B53 | 0.854 | 23.082 | | | |
| Sensation seeking benefits | B61 | 0.871 | 23.626 | 0.863 | 0.761 | 0.864 |
| | B62 | 0.874 | 23.747 | | | |
| Symbolic benefits | G11 | 0.880 | 24.26 | 0.903 | 0.733 | 0.891 |
| | G12 | 0.891 | 24.758 | | | |
| | G13 | 0.794 | 20.749 | | | |
| Aesthetic benefits | G21 | 0.663 | 15.825 | 0.852 | 0.620 | 0.828 |
| | G22 | 0.880 | 23.31 | | | |
| | G23 | 0.803 | 20.47 | | | |
| Moral benefits | G31 | 0.701 | 15.851 | 0.653 | 0.465 | 0.635 |
| | G33 | 0.663 | 14.981 | | | |
| Mastery benefits | G41 | 0.763 | 19.409 | 0.871 | 0.703 | 0.876 |
| | G42 | 0.878 | 23.888 | | | |
| | G43 | 0.869 | 23.525 | | | |
| Relatedness benefits | G51 | 0.833 | 22.393 | 0.913 | 0.779 | 0.914 |
| | G52 | 0.901 | 25.354 | | | |
| | G53 | 0.912 | 25.837 | | | |
| Distinctiveness benefits | G61 | 0.953 | 25.819 | 0.890 | 0.659 | 0.851 |
| | G62 | 0.736 | 18.175 | | | |
| | G63 | 0.726 | 17.847 | | | |
| Leisure wellbeing | Lwb1 | 0.836 | 21.115 | 0.870 | 0.775 | 0.873 |
| | Lwb2 | 0.923 | 24.093 | | | |

$\chi.^2$ ($p$-value) = 1,108.57 (0.00), $df$ = 515; CFI = 0.954; NNFI = 0.944; GFI = 0.893; RMSEA = 0.046

**Table 3** Correlations among the Constructs

| | B1 | B2 | B3 | B4 | B5 | B6 | G1 | G2 | G3 | G4 | G5 | G6 | LWB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B1 | **0.823** | | | | | | | | | | | | |
| B2 | 0.024 | **0.926** | | | | | | | | | | | |
| B3 | *0.398* | *0.180* | **0.811** | | | | | | | | | | |
| B4 | *0.298* | *0.215* | *0.149* | **0.845** | | | | | | | | | |
| B5 | *0.332* | *0.308* | *0.156* | *0.691* | **0.851** | | | | | | | | |
| B6 | *0.226* | *0.180* | -0.015 | *0.725* | *0.723* | **0.873** | | | | | | | |
| G1 | *0.179* | *0.327* | 0.085 | *0.537* | *0.567* | *0.700* | **0.856** | | | | | | |
| G2 | *0.198* | *0.208* | -0.024 | *0.645* | *0.594* | *0.709* | *0.607* | **0.787** | | | | | |
| G3 | *0.440* | *0.534* | *0.51* | *0.609* | *0.711* | *0.538* | *0.616* | *0.486* | **0.682** | | | | |
| G4 | *0.176* | *0.270* | 0.077 | *0.47* | *0.492* | *0.643* | *0.673* | *0.570* | *0.554* | **0.838** | | | |
| G5 | 0.025 | *0.171* | -0.057 | *0.491* | *0.409* | *0.596* | *0.421* | *0.494* | *0.211* | *0.483* | **0.883** | | |
| G6 | 0.097 | *0.167* | -0.08 | *0.421* | *0.406* | *0.614* | *0.684* | *0.532* | *0.441* | *0.650* | *0.582* | **0.812** | |
| LWB | 0.262 | *0.266* | 0.072 | *0.474* | *0.64* | *0.585* | *0.506* | *0.519* | *0.590* | *0.535* | *0.339* | *0.403* | **0.881** |

• Italicized are significant at 99% CI.

• Diagonal elements are the square roots of the AVE of each construct.

• Benefits related to basic needs: B1 = Safety benefits, B2 = Health benefits, B3 = Economic benefits, B4 = Sensory benefits, B5 = Escape benefits, B6 = Sensation benefits.

• Benefits related to growth needs: G1 = Symbolic benefits, G2 = Aesthetic benefits, G3 = Moral benefits, G4 = Mastery benefits, G5 = Relatedness benefits, G6 = Distinctiveness benefits.

• LWB = Leisure wellbeing.

of basic needs benefits = 0.331, $p < 0.05$; composite of growth needs benefits = 0.312, $p < 0.05$). The result provides additional support for H1 and H2 (see Table 6).

**Moderation Effects of Personality Characteristics** H3 and H4 posit that personality serve to magnify the effects of perceived leisure benefits on leisure wellbeing. Using two-way ANOVAs, we tested the moderation effects of personality variables on the impact of perceived leisure benefits on leisure wellbeing.

**Table 4** Direct Effect of Basic Need Leisure Benefits on Leisure Wellbeing (H1)

| DV = Leisure wellbeing (satisfaction with leisure life) | Coeff | t-value | VIF |
|---|---|---|---|
| H1a: Safety benefits → Leisure wellbeing (+) | 0.083** | 2.020 | 1.322 |
| H1b: Health benefits → Leisure wellbeing (+) | 0.106** | 2.755 | 1.153 |
| H1c: Economic benefits → Leisure wellbeing (+) | -0.036 | -0.898 | 1.237 |
| H1d: Sensory benefits → Leisure wellbeing (+) | 0.030 | 0.588 | 2.018 |
| H1e: Escape benefits → Leisure wellbeing (+) | 0.365** | 7.087 | 2.081 |
| H1f: Sensation benefits → Leisure wellbeing (+) | 0.218** | 4.180 | 2.140 |
| $F(10,491) = 29.453$, $R^2 = 0.375$ | | | |

• **Significant at the 0.05 level.

• Control variables: Gender, age, marital status, monthly household income.

**Table 5** Direct Effect of Growth Need Leisure Benefits on Leisure Wellbeing (H2)

| DV = Leisure wellbeing (satisfaction with leisure life) | Coeff | t-value | VIF |
|---|---|---|---|
| H2a: Symbolic benefits → Leisure wellbeing (+) | 0.099* | 1.776 | 2.258 |
| H2b: Aesthetic benefits → Leisure wellbeing (+) | 0.208** | 4.329 | 1.675 |
| H2c: Moral benefits → Leisure wellbeing (+) | 0.161** | 3.322 | 1.720 |
| H2d: Mastery benefits → Leisure wellbeing (+) | 0.243** | 4.669 | 1.976 |
| H2e: Relatedness benefits → Leisure wellbeing (+) | 0.083* | 1.810 | 1.543 |
| H2f: Distinctiveness benefits → Leisure wellbeing (+) | -0.087 | -1.632 | 1.996 |
| $F(10,491) = 23.701$, $R^2 = 0.326$ | | | |

- *Significant at the 0.1 level, **Significant at the 0.05 level.
- Control variables: Gender, age, marital status, monthly household income.

**Table 6** Direct Effect of Leisure Benefits on Leisure Wellbeing

| DV = Leisure wellbeing (satisfaction with leisure life) | Coeff | t-value | VIF |
|---|---|---|---|
| H1: Basic need benefits (composite) → Leisure wellbeing (+) | 0.331** | 6.539 | 1.914 |
| H2: Growth need benefits (composite) → Leisure wellbeing (+) | 0.312** | 6.349 | 1.805 |
| $F(6,495) = 42.036$, $R^2 = 0.338$ | | | |

- **Significant at the 0.05 level.
- Control variables: Gender, age, marital status, monthly household income.

The results indicate that interaction effects were significant only for four relationships out of hypothesized twelve relationships. Even with the four significant moderation effects, we found the effect of leisure benefits on leisure wellbeing is greater for those who scored low score on the personality measures, *contrary to what we hypothesized* (see Fig. 3). More specifically, the testing results for H3d show that the effect of sensory benefits on leisure wellbeing is stronger for the less-hedonistic individuals than the hedonistic participants ($F(1, 123) = 7.622$, $p < 0.05$). Similarly, the results for H4b show that the effect of aesthetic benefits on leisure wellbeing is stronger for low than high aestheticism participants ($F(1, 95) = 7.413$, $p < 0.05$). Moreover, the results for H4c show that the effect of moral benefits on leisure wellbeing is stronger for morally insensitive than morally sensitive participants ($F(1, 99) = 5.391$, $p < 0.05$). Lastly, the testing results for H4e show that the effect of relatedness benefits on leisure wellbeing is stronger for introverts than for extroverts ($F(1, 111) = 8.333$, $p < 0.05$).

As indicated, the results of significant interaction effects are contrary to our hypotheses. These results may be explained in terms of floor and ceiling effects. Specifically, one can argue that hedonists already experience much satisfaction from sensory benefits; thus, they may not be sensitive to the perceived sensory benefit, compared to the non-hedonists. That is, sensory benefits do not contribute much for the wellbeing of hedonists because of "ceiling effect." In other words, sensory leisure benefits may not contribute much to leisure wellbeing for those who already perceive sensory benefits from the leisure activity (cf. Rash et al., 2011).

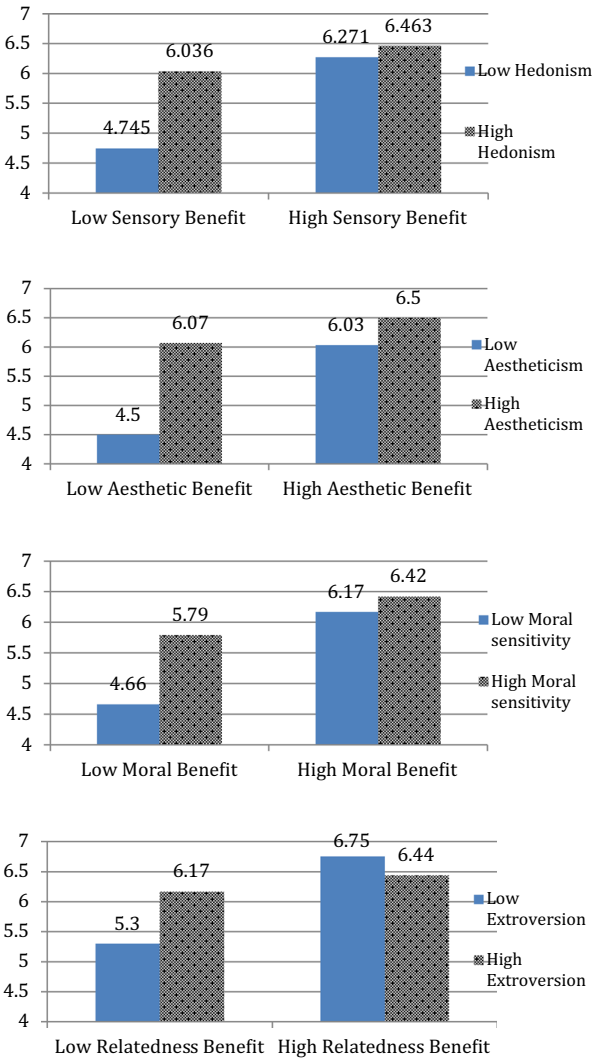


**Fig. 3** Moderation Effects (Significant ANOVA Results; DV = Leisure wellbeing)

Furthermore, the less-hedonic individuals may be more sensitive to sensory benefits. One can argue that the less-hedonic participants have a greater opportunity to experience sensory benefits and such experience is likely to contribute to their leisure wellbeing ("floor effect") (cf. Froh et al., 2009; Sin & Lyubomirsky, 2009). A similar argument can be made related to the interaction effects found with aesthetics benefits, moral benefits, and relatedness benefits (see Tables 7 and 8 and Fig. 3). In sum, the ANOVA results failed to support H3 and H4 and their subordinate hypotheses.

**Table 7** Moderation Effects for Leisure Basic Need Benefits (H3): Two-Way ANOVAs

| DV = Leisure wellbeing | | F-value |
|---|---|---|
| H3a: Safety benefits x Safety consciousness (+) | Rejected | n.s |
| H3b: Health benefits x Health consciousness (+) | Rejected | n.s |
| H3c: Economic benefits x Price sensitivity (+) | Rejected | n.s |
| H3d: Sensory benefits x Hedonism (+) | Supported but contrary to hypothesis | $F(1,123) = 7.622$, $p < 0.05$ |
| H3e: Escape benefits x Escapism (+) | Rejected | n.s |
| H3f: Sensation benefits x Sensation seeking (+) | Rejected | n.s |

**Table 8** Moderation Effects Growth Need Leisure Benefits (H4): Two-Way ANOVAs

| DV = Leisure wellbeing | Results | F-value |
|---|---|---|
| H4a: Symbolic benefits x Status consciousness (+) | Rejected | n.s |
| H4b: Aesthetic benefits x Aestheticism (+) | Supported but contrary to hypothesis | $F(1,95) = 7.413$, $p < 0.05$ |
| H4c: Moral benefits x Moral sensitivity (+) | Supported but contrary to hypothesis | $F(1,99) = 5.391$, $p < 0.05$ |
| H4d: Mastery benefits x Mastery-seeking (+) | Rejected | n.s |
| H4e: Relatedness benefits x Extroversion (+) | Supported but contrary to hypothesis | $F(1,111) = 8.333$, $p < 0.05$ |
| H4f: Distinctiveness benefits x Need for distinction (+) | Rejected | n.s |

**Mediation Effects of Personality Characteristics** H5 and H6 posit that personality characteristics influence perception of leisure benefits, which in turn influence leisure wellbeing. In other words, the mediation model reflects the notion that the effect of personality characteristics on leisure wellbeing is mediated by perceived leisure benefits.

Meditation effects of leisure benefits on the relationship between personality variables and leisure wellbeing was tested using Process Macro Mediation Analysis (Model 4) (Hayes, 2022; Version 3.3). The results indicate full support for the mediation model. Eleven out of the entire twelve mediating relationships were significant. Even in the only nonsignificant relationship, the effect of price sensitivity on economic benefits was significant, but the effect of economic benefits on leisure wellbeing was not significant. In all eleven relationships, the personality variables (IVs) registered significant predictive effects on perceptions of corresponding leisure benefits (Mediators), which in turn registered significant and positive effects on leisure wellbeing (DV). As such, we conclude that these results provide support for H5 and H6 (see Tables 9 and 10, and Appendix 2 for detailed test results). In other words, the results provide support for the mediation model.

## Discussion

The first goal of this study was to empirically test the predictive effects of perceived leisure benefits on leisure wellbeing as proposed by the benefits theory of leisure wellbeing (Sirgy et al., 2017). The results indicate that perceived leisure

**Table 9** Mediation Effects for Basic Need Leisure Benefits (H5): Process Model 4

| Personality characteristics(IV) → Mediator(M) → Leisure wellbeing | Results |
|---|---|
| H5a: Safety consciousness → Safety benefits → Leisure wellbeing | Supported |
| H5b: Health consciousness → Health benefits → Leisure wellbeing | Supported |
| H5c: Price sensitivity → Economic benefits → Leisure wellbeing | Rejected |
| H5d: Hedonism → Sensory benefits → Leisure wellbeing | Supported |
| H5e: Escapism → Escape benefits → Leisure wellbeing | Supported |
| H5f: Sensation seeking → Sensation benefits → Leisure wellbeing | Supported |

**Table 10** Mediation Effects Growth Need Leisure Benefits (H6): Process Model 4

| Personality characteristics(IV) → Mediator(M) → Leisure wellbeing | Results |
|---|---|
| H6a: Status consciousness → Symbolic benefits → Leisure wellbeing | Supported |
| H6b: Aestheticism → Aesthetic benefits → Leisure wellbeing | Supported |
| H6c: Moral sensitivity → Moral benefits → Leisure wellbeing | Supported |
| H6d: Mastery-seeking → Mastery benefits → Leisure wellbeing | Supported |
| H6e: Extroversion → Relatedness benefits → Leisure wellbeing | Supported |
| H6f: Need for distinction → Distinctiveness benefits → Leisure wellbeing | Supported |

benefits (e.g., safety, health, escape, sensation benefits) do indeed predict leisure wellbeing. This finding is also consistent with past studies on leisure benefits (e.g., Beard & Ragheb, 1980; Driver et al., 1991; Newman et al., 2014; Philipp, 1997; Seligman, 2011; Sheth et al., 1991).

The second goal of this study was to examine the role of personality variables on leisure wellbeing. We made the case that personality variables can serve as moderators or as antecedents through a mediation mechanism. The results of this study provide greater support for the mediation model. Specifically, the results of this study indicate that personality accounts for more variance in leisure wellbeing when treated as antecedents to perceived leisure benefits rather than moderators (interacting with perceived leisure benefits). This is consistent with the results of Kuper et al.'s (2022) recent study which demonstrated the influence of personality on a host of variables related to leisure activity (e.g., type of leisure activity and engagement). The same study also indicated that personality characteristics did *not* moderate the leisure engagement/leisure wellbeing relationship. This implies that personality influences perceived leisure benefits, which in turn may have a direct effect on leisure wellbeing. In this study, the results show that the perceived benefits/leisure wellbeing relationship was not moderated by the personality.

Why did the mediation model perform better than the moderation model? First, it seems like personality influences leisure interest, choice of leisure activities, and the degree of leisure engagement (Rauthmann, 2021). That is, personality influences the formation and perception of benefits of a leisure

activity. In other words, personality seems to have a direct influence on specific leisure behaviors such as selective attention, choice of leisure activities with the desired benefits, and full appreciation of the benefits extracted from the activity.

Second, the study findings indicate that personality may not interact with perceived benefits extracted from a leisure activity as expected. Specifically, personality may not increase or decrease the *importance* or *salience* of perceived benefits in ways that influence leisure wellbeing. Instead, the evidence suggests that personality may play a direct role in influencing perceived benefits, which in turn influences leisure wellbeing.

Third, the moderation effect of personality variables may not be strong enough. That is, the *variance* underlying the personality variables may not be strong enough to capture significant interactions between perceived benefits and leisure wellbeing. Similarly, the variance underlying the perceived benefits may not be strong enough. A certain threshold level of personality and/or perceived benefits may be required to generate significant interaction effects on leisure wellbeing.

Fourth, the nonsignificant results of the moderation effects may be explained by the possibility that the study participants may already have experienced leisure benefits from *other activities*; as such, they may not be sensitive enough to benefits of the primary activity they selected to respond to. In other words, there may have been a ceiling effect.

Fifth, the study found some significant, but contradictory moderation effects. Specifically, this study found that 1) the relationship between sensory benefits and leisure wellbeing is stronger for those with low hedonism, 2) the relationship between aesthetic benefits and leisure wellbeing is stronger for those with low aestheticism, 3) the relationship between moral benefits and leisure wellbeing is stronger for those with low moral sensitivity, and 4) the relationship between relatedness benefits and leisure wellbeing is stronger for those with low extroversion. The results may imply that these leisure benefits are constrained by a "floor effect" (Froh et al., 2009; Sin & Lyubomirsky, 2009). That is, those who experience the leisure benefits in a limited way are likely to be more sensitive to the novel benefits. In addition, they are less likely to experience hedonic adaptation related to those benefits. For example, those with low hedonism may be more sensitive to the sensory leisure benefits because they do not experience the full extent of the sensory benefits and sensory benefits are less subject to hedonic adaptation for those with low hedonic experiences. Similar arguments can be made for aesthetics, moral, and relatedness benefits. Future research should test this emergent hypothesis.

Sixth, as one reviewer pointed out, it is possible that some personality traits mainly influence leisure wellbeing as mediators while other traits influence leisure wellbeing as moderators. We believe when a personality trait may have a stronger influence on behavioral engagement on leisure activities (e.g., choice of leisure activities and frequency/duration/diversity of behavioral engagement), the personality trait is likely to influence leisure wellbeing as a mediator (thus

affecting the type and degree of leisure benefits). In contrast, when a personality trait may have a stronger influence on psychological involvement with leisure benefits (e.g., perceived importance, personal relevance, and personal meaning of the leisure benefits), the personality trait may play the role of moderator. It is also possible that a personality trait has an equally strong influence both on behavioral engagement with leisure activities and on psychological involvement with leisure benefits. Future research could investigate the differential effects of mediators versus moderators in relation to leisure wellbeing.

Finally, the study participants may not have been sensitive enough to the benefits of the stated leisure activity because the survey lacked *ecological validity*. That is, responding to a survey questionnaire about their perceptions of leisure benefits from a leisure activity is not likely to capture the true and authentic experience on the ground.

This study's support for the mediation model implies that various benefits from a leisure activity may have an additive effect on leisure wellbeing. Thus, it is important to have a balanced and strong portfolio of benefits than to have only one particularly dominant benefit that matches well with personality (cf. Grimm et al., 2015). Leisure participants are recommended to select and engage in leisure activities that provide a variety of benefits related to both basic and growth needs. In designing leisure services, service providers should try to provide participants with various benefits related to both basic and growth needs.

There are many limitations of this study, and we offer the following suggestions for future research. This study tested the model in the context of an active leisure activity. Future studies should test the various propositions of the overall model in the context of various types of leisure activities (serious vs. casual; active vs. passive; routine vs. project based). For example, most of the theoretical propositions may apply better to "serious" leisure activities and not as much to casual activities.

This study tested the model in South Korea, and we do not know much about how the cultural context may have influenced the study findings. Future research may examine the moderating effects of cultural self-construal (e.g., independent vs. interdependent self-construal). Interdependent self-construal is prevalent in collectivistic cultures while independent self-construal is predominant in individualistic cultures (Brewer & Chen, 2007; Kitayama et al., 2007; Markus & Kitayama, 1991). Interdependent self-construal is the extent to which people view the self as being fundamentally connected to other people. Individuals high in interdependent self-construal focus strongly on their relationships with others and are concerned with the ways in which they can benefit their social group. Independent self-construal is the exact opposite of interdependent self-construal. Future cross-cultural research can examine whether social benefits (e.g., symbolic benefits, relatedness benefits) may have a stronger effect on leisure wellbeing of individuals with interdependent self-construal. In addition, future cross-cultural research may examine whether individual benefits (e.g., distinctiveness benefits) have a greater effect on wellbeing for individuals with independent self-construal.

This study found no support for the moderation effects of economic benefits for those who are price sensitive. Similarly, no moderation effect was detected regarding the interaction of symbolic benefits with status consciousness. Future research could examine whether economic and symbolic benefits may have a stronger effect on leisure wellbeing for high (than low) materialistic individuals (Dittmar et al., 2014; Sirgy et al., 2021; Gurel-Atay et al., 2021). That is, future research could examine the moderating role of materialism and its various dimensions on the interrelationships among perceived economic benefits, perceived symbolic benefits, frugality (or price sensitivity), and leisure wellbeing.

The findings of this study are based on cross-sectional data. One can argue that our perceived leisure benefits may change over time during the leisure experience (Nawijn, 2010; Mitas et al., 2012). Research can be conducted to examine changes of perceived benefits over time. Specifically, research can examine perceived leisure benefits before engaging in the leisure activity. One can hypothesize that anticipating the benefits may have a significant effect on leisure wellbeing (i.e., anticipated saving) (Chun et al., 2017; Quoidbach et al., 2010), as well as during the leisure experiences (i.e., savoring of the present moment) (Bryant, 2003), and after the leisure experiences (i.e., reminiscence) (Bryant et al., 2005). Future longitudinal research should help us better understand how changes in perceived benefits influence leisure wellbeing over time.

Despite the study limitations, we believe that our study provided an initial formal test the overall model as theorized by Sirgy et al. (2017). We hope that our study has provided a foundation for a program of research examining the various antecedent conditions of leisure activity benefits, the effects of leisure activity benefits on leisure wellbeing, and the moderation effects of a host of personal, situational, and cultural factors.

## Appendix 1. Constructs and Measurement Items

### Basic Needs/Benefits

*Safety benefits* (Cronbach's Alpha = 0.858).

- This leisure activity is safe.
- The chance of physical injury is low during the leisure activity
- The chances of being ill is low during the leisure activity

*Health benefits* (Cronbach's Alpha = 0.928).

- My leisure activities are physically challenging.
- I do leisure activities which develop my physical fitness.
- I participate in my leisure to restore me physically
- My leisure activities help me to stay healthy.

*Economic benefits* (Cronbach's Alpha = 0.846).

- Compared to other leisure activities, participating in this leisure activity is financially affordable.
- Compared to other leisure activities, equipment required for this leisure activity is financially affordable.
- Overall, this leisure activity is financially affordable.

*Sensory benefits* (Cronbach's Alpha = 0.880).

- In general, the leisure activity pleases my physical senses (sight, sound, touch, scent).
- In general, the leisure activity environment pleases my physical senses (sight, sound, touch, scent).
- The leisure activity provides me with sensory pleasure

*Escape benefits* (Cronbach's Alpha = 0.887).

- This leisure activity allows me to forget about work.
- This leisure activity allows me to distance myself from the demands of work.
- This leisure activity allows me to get a break from the demands of work.

*Sensation benefits* (Cronbach's Alpha = 0.863).

- This leisure activity helps me get involved with exciting activities.
- This leisure activity helps me manage to do exciting things and experience a lot of thrills.

**Growth Needs/Benefits**

*Symbolic benefits* (Cronbach's Alpha = 0.903).

- This leisure activity reflects how I see myself.
- This leisure activity reflects how I like to see myself.
- This leisure activity reflects how I believe others see me.
- This leisure activity reflects how I would like others to see me.

*Aesthetic benefits* (Cronbach's Alpha = 0.852).

- The areas or places where I engage in my leisure activities are fresh and clean.
- The areas or places where I engage in my leisure activities are interesting.
- The areas or places where I engage in my leisure activities are beautiful.
- The areas or places where I engage in my leisure activities are well designed.

Moral benefits (Cronbach's Alpha = 0.653).

- I think this leisure activity is helpful for many people.
- Through this leisure activity, I was able to contribute to my community.
- I think this leisure activity is socially responsible.

*Mastery benefits* (Cronbach's Alpha = 0.871).

- Through this leisure activity, I was able to challenge myself learning new things.
- Through this leisure activity, I feel like I have mastered the art of doing this activity.
- Through this leisure activity, I feel that I was able to sharpen my skill of doing this activity.

*Relatedness benefits* (Cronbach's Alpha = 0.913).

- Through this leisure activity, I was able to make new friends.
- Through this leisure activity, I was able to build strong relationships with others.
- Through this leisure activity, I was able to spend time with someone special.

*Distinctiveness benefits* (Cronbach's Alpha = 0.890).

- How much do you feel like you stand out within this group?
- How much do you feel unique as you participate in this group?
- How distinct and separate do you feel within this group?

### Personality Characteristics

*Safety consciousness* (Cronbach's Alpha = 0.856).

- I always take extra time to do things safely.
- People think of me as being an extremely safety-minded person.
- I always avoid dangerous situations.
- I take a lot of extra time to do something safely even if it slows my performance.
- I often find myself making sure that other people do things that are safe and healthy.
- I get upset when I see other people acting dangerously.
- Doing the safest possible thing is always the best thing

*Health consciousness* (Cronbach's Alpha = 0.863).

- I worry that there are harmful chemicals in my food.
- I am concerned about my drinking water quality. I usually read the ingredients on food labels.
- I read more health-related articles than I did 3 years ago.
- I am interested in information about my health.
- I am concerned about my health all the time.

*Price sensitivity* (Cronbach's Alpha = 0.881).

- I'm willing to make an extra effort to find a low price.
- I am sensitive to differences in prices.
- I will change what I had planned to buy to take advantage of a lower price

*Aesthetics sensitivity* (Cronbach's Alpha = 0.835).

- Do you seem to be aware of subtleties in your environment?
- Are you deeply moved by the arts or music?
- Do you notice and enjoy delicate or fine scents, tastes, sounds, works of art?

*Escapism* (Cronbach's Alpha = 0.818).

- I liked the sense of "escapism" of the experience.
- Leisure experiences allowed me to forget some real-life problems.
- Leisure experiences allowed me to relax and relieve the stress of everyday life.

*Sensation seeking* (Cronbach's Alpha = 0.864).

- I would like to explore strange places (experience seeking)
- I like to do frightening things (thrill and adventure seeking)
- I like new and exciting experiences, even if I must break the rules (disinhibition)
- I prefer friends who are exciting and unpredictable (boredom susceptibility)

*Status consciousness* (Cronbach's Alpha = 0.942).

- I would engage in this activity because it has status.
- I am interested in new leisure activity with status.
- I would pay more for a new activity if it had status.
- The status of a leisure activity is important to me.
- A leisure activity is more valuable to me if it has some snob appeal.

*Aestheticism* (Cronbach's Alpha = 0.887).

- I value artistic, aesthetic experiences.
- I have many artistic interests.
- I am sophisticated in art, music, or literature.

*Moral sensitivity* (Cronbach's Alpha = 0.841).

- On a typical day, I face several ethical dilemmas.
- Many of the decisions that I make have ethical dimensions.
- I regularly think about the ethical implications of my decisions.
- I think about the morality of my actions almost every day.

*Mastery-seeking* (Cronbach's Alpha = 0.774).

- I achieve specific goals that I set myself.
- My plans almost always lead to success
- I like to be challenged

*Extroversion* (Cronbach's Alpha = 0.896).

- I enjoy talking to strangers.
- I am a very friendly person.
- I prefer to be with people who are exciting rather than quiet.
- I like doing exciting things with people more than just talking quietly.
- I am a leader of others
- I like making decisions for groups
- I do not enjoy being alone
- When relaxing I prefer being with others rather than being alone.

*Need for distinction* (Cronbach's Alpha = 0.858).

- I engage in this leisure activity to create a more distinctive personal image.
- The more commonplace a leisure activity is among the general population, the less interested I am in doing it.
- I often think of the things I do in terms of how I can use them to shape a more unusual personal image.
- I have often violated the understood rules of my social group regarding what to do for leisure activity.

**Leisure wellbeing (Cronbach's Alpha = 0.870).**

- I am satisfied with my leisure life overall.
- I am satisfied with my leisure activities overall.

## Appendix 2. Detailed Mediation Effect Testing Results

**Table 11** Mediation Test Results for Basic Need Leisure Benefits (H5)

| Process Model | Moderators | | | DV | | |
|---|---|---|---|---|---|---|
| | Coeff. | S.E | *p* | Coeff. | S.E | *P* |
| | M (Safety benefits) | | | DV (Leisure wellbeing) | | |
| IV (Safety consciousness) | .163 | .056 | < .001 | .299 | .047 | < .001 |
| M (Safety benefits) | - | - | - | .168 | .038 | < .001 |
| | $R^2$=.066 | | | $R^2$=.129 | | |
| | F(5,496) = 7.016 | | < .001 | F(6,495) = 12.214 | | < .001 |
| | M (Health benefits) | | | DV (Leisure wellbeing) | | |
| IV (Health consciousness) | .151 | .051 | < .001 | .192 | .040 | < .001 |
| M (Health benefits) | - | - | - | .182 | .035 | < .001 |
| | $R^2$ =.049 | | | $R^2$ =.113 | | |
| | F(5,496) = 5.119 | | < .001 | F(6,495) = 10.470 | | < .001 |
| | M (Economic benefits) | | | DV (Leisure wellbeing) | | |
| IV (Price sensitivity) | .184 | .051 | < .001 | .269 | .039 | < .001 |
| M (Economic benefits) | - | - | - | -.004 | .033 | n.s |
| | $R^2$ =.069 | | | $R^2$ =.099 | | |
| | F(5,496) = 7.458 | | < .001 | F(6,495) = 9.112 | | < .001 |
| | M (Sensory benefits) | | | DV (Leisure wellbeing) | | |
| IV (Aesthetics sensitivity) | .255 | .042 | < .001 | .243 | .036 | < .001 |
| M (Sensory benefits) | - | - | - | .311 | .036 | < .001 |
| | $R^2$ =.121 | | | $R^2$ =.252 | | |
| | F(5,496) = 13.749 | | < .001 | F(6,495) = 27.809 | | < .001 |
| | M (Escape benefits) | | | DV (Leisure wellbeing) | | |

**Table 11** (continued)

| Process Model | Moderators | | | DV | | |
|---|---|---|---|---|---|---|
| | Coeff. | S.E | *p* | Coeff. | S.E | *P* |
| IV (Escapism) | .480 | .036 | < .001 | .308 | .038 | < .001 |
| M (Escape benefits) | - | - | - | .396 | .041 | < .001 |
| | $R^2$ =.288 | | | $R^2$ =.406 | | |
| | F(5,496) = 40.186 | | < .001 | F(6,495) = 56.358 | | < .001 |
| | M (Sensation-seeking benefits) | | | DV (Leisure wellbeing) | | |
| IV (Sensation seeking) | .241 | .037 | < .001 | .071 | .031 | < .001 |
| M (Sensation-seeking benefits) | - | - | - | .427 | .036 | < .001 |
| | $R^2$ =.089 | | | $R^2$ =.269 | | |
| | F(5,496) = 9.787 | | < .001 | F(6,495) = 30.422 | | < .001 |

- IV = Independent Variable (Personality Characteristics).
- M = Mediator (Leisure Benefits).
- DV = Dependent Variable (Leisure Wellbeing).
- Control variables: Gender, age, marital status, monthly household income.

**Table 12** Mediation Test Results for Growth Need Leisure Benefits (H6)

| Process Model 4 | Moderators | | | DV | | |
|---|---|---|---|---|---|---|
| | Coeff. | S.E | *p* | Coeff. | S.E | *P* |
| | M (Symbolic benefits) | | | DV(Leisure wellbeing) | | |
| IV (Status consciousness) | 0.227 | 0.035 | < 0.001 | -0.027 | 0.030 | n.s |
| M (Symbolic benefits) | - | - | - | 0.382 | 0.038 | < 0.001 |
| | $R^2 = 0.086$ | | | $R^2 = 0.188$ | | |
| | $F(5,496) = 9.336$ | | < 0.001 | $F(6,495) = 19.136$ | | < 0.001 |
| | **M (Aesthetic benefits)** | | | **DV (Leisure wellbeing)** | | |
| IV (Aestheticism) | 0.176 | 0.038 | < 0.001 | 0.227 | 0.034 | < 0.001 |
| M (Aesthetic benefits) | - | - | - | 0.393 | 0.038 | < 0.001 |
| | $R^2 = 0.075$ | | | $R^2 = 0.279$ | | |
| | $F(5,496) = 8.083$ | | < 0.001 | $F(6,495) = 32.009$ | | < 0.001 |
| | **M (Moral benefits)** | | | **DV (Leisure wellbeing)** | | |
| IV (Moral sensitivity) | 0.220 | 0.042 | < 0.001 | 0.163 | 0.039 | < 0.001 |
| M (Moral benefits) | - | - | - | 0.385 | 0.040 | < 0.001 |
| | $R^2 = 0.076$ | | | $R^2 = 0.216$ | | |
| | $F(5,496) = 8.241$ | | < 0.001 | $F(6,495) = 22.739$ | | < 0.001 |
| | **M (Mastery benefits)** | | | **DV (Leisure wellbeing)** | | |
| IV (Mastery-seeking) | 0.502 | 0.047 | < 0.001 | 0.444 | 0.041 | < 0.001 |
| M (Mastery benefits) | - | - | - | 0.269 | 0.035 | < 0.001 |
| | $R^2 = 0.191$ | | | $R^2 = 0.383$ | | |
| | $F(5,496) = 23.361$ | | < 0.001 | $F(6,495) = 51.385$ | | < 0.001 |
| | **M (Relatedness benefits)** | | | **DV (Leisure wellbeing)** | | |

**Table 12** (continued)

| Process Model 4 | Moderators | | | DV | | |
|---|---|---|---|---|---|---|
| | Coeff. | S.E | *p* | Coeff. | S.E | *P* |
| IV (Extroversion) | 0.391 | 0.054 | < 0.001 | 0.227 | 0.041 | < 0.001 |
| M (Relatedness benefits) | - | - | - | 0.174 | 0.032 | < 0.001 |
| | $R^2 = 0.138$ | | | $R^2 = 0.154$ | | |
| | $F(5,496) = 15.932$ | | < 0.001 | $F(6,495) = 15.054$ | | < 0.001 |
| | **M (Distinctiveness benefits)** | | | **DV (Leisure wellbeing)** | | |
| IV (Need for distinction) | 0.489 | 0.041 | < 0.001 | 0.094 | 0.041 | < 0.001 |
| M (Distinctiveness benefits) | - | - | - | 0.208 | 0.039 | < 0.001 |
| | $R^2 = 0.230$ | | | $R^2 = 0.113$ | | |
| | $F(5,496) = 29.641$ | | < 0.001 | $F(6,495) = 10.543$ | | < 0.001 |

Status consciousness and symbolic benefits set showed full mediation effect.

- IV = Independent Variable (Personality Characteristics).
- M = Mediator (Leisure Benefits).
- DV = Dependent Variable (Leisure Wellbeing).
- Control variables: Gender, age, marital status, monthly household income.

## Appendix 3 Pearson Correlations among the Constructs

**Table 13** Pearson Correlations among the Constructs (including personality variables)

| | B1 | B2 | B3 | B4 | B5 | B6 | G1 | G2 | G3 | G4 | G5 | G6 | M11 | M1 2 | M13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B1 | 1 | | | | | | | | | | | | | | |
| B2 | 0.018 | 1 | | | | | | | | | | | | | |
| B3 | 0.361** | 0.144** | 1 | | | | | | | | | | | | |
| B4 | 0.273** | 0.204** | 0.124** | 1 | | | | | | | | | | | |
| B5 | 0.306** | 0.302** | 0.133** | 0.606** | 1 | | | | | | | | | | |
| B6 | 0.204** | 0.202** | -0.015 | 0.636** | 0.635** | 1 | | | | | | | | | |
| G1 | 0.159** | 0.337** | 0.036 | 0.467** | 0.491** | 0.613** | 1 | | | | | | | | |
| G2 | 0.265** | 0.232** | 0.035 | 0.526** | 0.545** | 0.581** | 0.516** | 1 | | | | | | | |
| G3 | 0.298** | 0.394** | 0.294** | 0.514** | 0.522** | 0.494** | 0.560** | 0.496** | 1 | | | | | | |
| G4 | 0.176** | 0.306** | 0.052 | 0.420** | 0.451** | 0.568** | 0.612** | 0.509** | 0.511** | 1 | | | | | |
| G5 | 0.027 | 0.177** | -0.056 | 0.429** | 0.364** | 0.523** | 0.396** | 0.399** | 0.268** | 0.441** | 1 | | | | |
| G6 | 0.085 | 0.149** | -0.053 | 0.338** | 0.325** | 0.518** | 0.619** | 0.412** | 0.435** | 0.539** | 0.497** | 1 | | | |
| M11 | 0.155** | 0.179** | 0.188** | 0.254** | 0.232** | 0.181** | 0.183** | 0.200** | 0.242** | 0.155** | 0.102* | 0.094* | 1 | | |
| M12 | 0.069 | 0.155** | 0.163** | 0.167** | 0.194** | 0.132** | 0.152** | 0.185** | 0.248** | 0.159** | 0.147** | 0.142** | 0.472** | 1 | |
| M13 | 0.122** | 0.141** | 0.168** | 0.143** | 0.200** | 0.127** | 0.108* | 0.091* | 0.180** | 0.182** | -0.010 | 0.028 | 0.449** | 0.353** | 1 |
| M14 | 0.148** | 0.134** | 0.110* | 0.243** | 0.268** | 0.306** | 0.383** | 0.241** | 0.388** | 0.283** | 0.172** | 0.321** | 0.284** | 0.472** | 0.365** |
| M15 | 0.158** | 0.150** | 0.045 | 0.395** | 0.499** | 0.460** | 0.350** | 0.355** | 0.350** | 0.393** | 0.331** | 0.285** | 0.266** | 0.315** | 0.351** |
| M16 | -0.009 | 0.036 | -0.090* | 0.141** | 0.160** | 0.265** | 0.256** | 0.177** | 0.211** | 0.311** | 0.285** | 0.364** | -0.061 | 0.113* | 0.060 |
| M21 | -0.105* | 0.047 | -0.149** | 0.075 | 0.018 | 0.162** | 0.273** | 0.117** | 0.163** | 0.167** | 0.235** | 0.364** | 0.101* | 0.248** | 0.021 |
| M22 | 0.162** | 0.047 | 0.066 | 0.224** | 0.202** | 0.272** | 0.312** | 0.177** | 0.284** | 0.263** | 0.195** | 0.334** | 0.174** | 0.310** | 0.253** |
| M23 | 0.172** | 0.140** | 0.107* | 0.177** | 0.187** | 0.207** | 0.218** | 0.151** | 0.230** | 0.177** | 0.167** | 0.225** | 0.337** | 0.366** | 0.287** |
| M24 | 0.157** | 0.256** | 0.110* | 0.294** | 0.359** | 0.335** | 0.383** | 0.291** | 0.390** | 0.424** | 0.300** | 0.319** | 0.279** | 0.346** | 0.323** |
| M25 | -0.006 | 0.124** | -0.086 | 0.215** | 0.244** | 0.292** | 0.256** | 0.239** | 0.233** | 0.246** | 0.333** | 0.282** | 0.088 | 0.220** | 0.050 |
| M26 | -0.024 | 0.064 | -0.015 | 0.210** | 0.182** | 0.281** | 0.385** | 0.172** | 0.308** | 0.317** | 0.327** | 0.468** | 0.100* | 0.296** | 0.094* |
| LWB | 0.237** | 0.256** | 0.061 | 0.418** | 0.566** | 0.505** | 0.424** | 0.455** | 0.434** | 0.478** | 0.303** | 0.302** | 0.300** | 0.245** | 0.297** |

**Table 13** (continued)

| | M1 4 | M1 5 | M1 6 | M 21 | M 22 | M23 | M24 | M25 | M26 | LWB |
|---|---|---|---|---|---|---|---|---|---|---|
| B1 | | | | | | | | | | |
| B2 | | | | | | | | | | |
| B3 | | | | | | | | | | |
| B4 | | | | | | | | | | |
| B5 | | | | | | | | | | |
| B6 | | | | | | | | | | |
| G1 | | | | | | | | | | |
| G2 | | | | | | | | | | |
| G3 | | | | | | | | | | |
| G4 | | | | | | | | | | |
| G5 | | | | | | | | | | |
| G6 | | | | | | | | | | |
| M11 | | | | | | | | | | |
| M12 | | | | | | | | | | |
| M13 | | | | | | | | | | |
| M14 | 1 | | | | | | | | | |
| M15 | 0.469** | 1 | | | | | | | | |
| M16 | 0.312** | 0.424** | 1 | | | | | | | |
| M21 | 0.278** | 0.199** | 0.499** | 1 | | | | | | |
| M22 | 0.703** | 0.462** | 0.421** | 0.317** | 1 | | | | | |

**Table 13** (continued)

| | M1 4 | M1 5 | M1 6 | M 21 | M 22 | M23 | M24 | M25 | M26 | LWB |
|---|---|---|---|---|---|---|---|---|---|---|
| M23 | 0.483** | 0.347** | 0.224** | 0.222** | 0.485** | 1 | | | | |
| M24 | 0.489** | 0.459** | 0.359** | 0.332** | 0.447** | 0.382** | 1 | | | |
| M25 | 0.261** | 0.335** | 0.537** | 0.513** | 0.262** | 0.211** | 0.432** | 1 | | |
| M26 | 0.433** | 0.349** | 0.594** | 0.652** | 0.460** | 0.316** | 0.490** | 0.557** | 1 | |
| LWB | 0.362** | 0.529** | 0.195** | 0.069 | 0.331** | 0.259** | 0.547** | 0.291** | 0.216** | 1 |

- ** sig at 0.01 level, * sig at 0.05 level.
- Benefits related to basic needs: B1 = Safety benefits, B2 = Health benefits, B3 = Economic benefits, B4 = Sensory benefits, B5 = Escape benefits, B6 = Sensation benefits.
- Benefits related to growth needs: G1 = Symbolic benefits, G2 = Aesthetic benefits, G3 = Moral benefits, G4 = Mastery benefits, G5 = Relatedness benefits, G6 = Distinctiveness benefits.
- Personality variables: M11 = Safety consciousness, M12 = Health consciousness, M13 = Price sensitivity, M14 = Aesthetics sensitivity, M15 = Escapism, M16 = Sensation seeking.
- M21 = Status consciousness, M22 = Aestheticism, M23 = Moral sensitivity, M24 = Mastery-seeking, M25 = Extroversion, M26 = Need for distinction.
- LWB = Leisure wellbeing.

**Data Availability** The participants of this study did not give written consent for their data to be shared publicly, so supporting data is not available.

## Declarations

**Competing interests** The authors have no competing interests to declare that are relevant to the content of this.article.

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