# RESEARCH

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# Job satisfaction and happiness keys in the prosocial behavior of citizens in Europe



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# Abstract

**Background** Satisfaction and happiness are two widely studied topics in current literature. Human beings need to find happiness. However, for many authors, satisfaction is a prerequisite for happiness. Satisfaction, in turn, can be approached from different perspectives, such as job satisfaction, health satisfaction, and social life satisfaction. This research analyses the relationship between these variables and their influence on proactive social behaviour.

**Methods** The present study utilised the European Social Survey, an academic survey conducted across Europe in its round 10, carried out between 2022 and 2023, with a database of 25,311 valid responses. Structural equation modelling analysis conduct using PLS-SEM with the Smart PLS software.

**Results** The results demonstrate a direct and significant relationship between overall satisfaction and happiness and between happiness and prosocial behaviour. Similarly, a solid indirect relationship exists between satisfaction and prosocial behaviour in society. Furthermore, job satisfaction is among the variables influencing overall satisfaction and happiness. However, it is not the most important, with satisfaction with social life being the most influential on satisfaction.

**Conclusions and implications** Happiness is one of the main variables that influence people's lives. As we have observed, this happiness has a direct and solid relationship with the individual's level of satisfaction, with job satisfaction and satisfaction with social life being the most influential in this relationship between satisfaction and happiness. Therefore, these conclusions must be understood by both workers and employers and public administrations. Additionally, the relationship between happiness and prosocial behaviour is an interesting topic that the governments of countries and regions in Europe should consider.

Keywords Happiness, Satisfaction, Job satisfaction, Prosocial behaviour

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# Background

Happiness and satisfaction have been topics of growing interest in scientific literature. Understanding these aspects is essential, as happiness is not only considered an intrinsic component of individual well-being but is also associated with significant social consequences [1, 2]. In the words of Seligman [3], "Happiness is the sum of all the small joys of each day." This perspective highlights the importance of examining happiness holistically, where happiness is constructed through multiple daily experiences [4].

Happiness is not a static state but a dynamic phenomenon influenced by various factors, including satisfaction [5]. Traditionally, in the literature, happiness has been studied to be directly related to high satisfaction in general [6, 7]. Locke [8] concludes that satisfaction is related to emotions, which undergo a process of evaluation, consciously or unconsciously, through which we determine whether something is pleasant or unpleasant, depending on circumstances or experiences. This satisfaction is characterised by the individual's perception of happiness [9]. High life satisfaction is associated with longer life expectancy, health, and longevity [10-12], friendly social relationships, and satisfaction with romantic life [13], as well as satisfaction with work and salary received [14].

The exploration of happiness and its relationship with satisfaction has experienced renewed interest in the last decade. A recent study by Diener and Biswas-Diener [15] highlights the importance of satisfaction as a robust predictor of sustainable happiness over time. These authors suggest that satisfaction is not only linked to external circumstances but is also deeply rooted in the subjective perception of quality of life. According to Lyubomirsky [16], happiness is the experience of joy, gratitude, love, and fulfilling one's potential. This definition reflects the multifaceted nature of happiness, which goes beyond mere absence of distress to encompass a full range of positive emotions and a profound sense of well-being. It is also interesting to note that some authors propose that this relationship is reversed, that is, happiness can lead to general life satisfaction [17, 18]. However, this line of research is much less studied than the relationship between satisfaction and happiness.

Similarly, it has been observed that happiness can catalyse prosocial behaviour, defined as actions that benefit other individuals or society [19]. This relationship has been extensively studied in the literature. Li et al. [20] discussed in their study the positive and significant correlation between individual happiness and prosocial behaviour. Similarly, Harbaugh et al. [21] also studied this relationship, concluding that happier individuals activate certain areas of the brain that reinforce the sense of wellbeing, thereby fostering the need to help others. Recognising this connection between happiness and prosocial behaviour aligns with research suggesting that individuals experiencing high levels of well-being tend to engage in prosocial behaviours more frequently [22]. Dunn et al. [23] posit that individuals experiencing higher happiness levels are more likely to engage in prosocial behaviours, thus contributing to collective well-being. This study explores the interrelationship between satisfaction, happiness and prosocial behaviour through an analysis of the underlying mechanisms that connect these elements.

In summary, the main objective of this study is to analyse the relationship between satisfaction, happiness, and individuals' prosocial behaviour, with a particular emphasis on job satisfaction. Additionally, as a secondary objective, it aims to investigate how different aspects of life, such as health and social life, influence happiness and prosocial behaviour. The aim is for both administrations, in general, and various employers to be aware of the need to maintain high job satisfaction among employees and society to promote prosocial behaviour. We also aim to provide a study model that different researchers can use to analyse these variables appropriately. Therefore, to achieve these objectives, we propose the following research questions:

- Is job satisfaction a relevant factor when measuring individual happiness?
- Does this happiness significantly and relevantly influence the individual's prosocial behaviour?

To this end, this academic work is organised under the following three headings. The first section shows the literature where the variables that make up the conceptual model that is the object of this study are addressed. The second shows the methodology used for this research, a structural equation model. Moreover, this is followed by the results obtained in this article. Finally, this scientific work's most relevant discussions and conclusions are presented.

### **Conceptual Framework**

One of the main objectives of this work is to explain the link between satisfaction, happiness and prosocial behaviour. For this purpose, a structural equation modelling (SEM) with a Partial Least Squares (PLS) framework will be utilised. We chose this technique instead of using CB-SEM because it can be applied to explore the underlying theoretical model [24]. PLS-SEM doesn't require restrictive distributional assumptions about the data [25], and the use of consistent PLS (PLSc) corrects the behavior of relationship coefficients between latent variables in reflective constructs. Furthermore, it is essential to know which part of each person's life influences satisfaction the most, so it will seek to understand whether satisfaction with work, social life, or health is more important for generating that satisfaction in individuals. Indirectly, it also intends to ascertain any relationship between satisfaction and prosocial behaviour, which would be interesting from a business and governmental perspective. Figure 1 shows the connections and the variables of the model. The connections are derived from the connections, and the study's hypotheses are proposed.

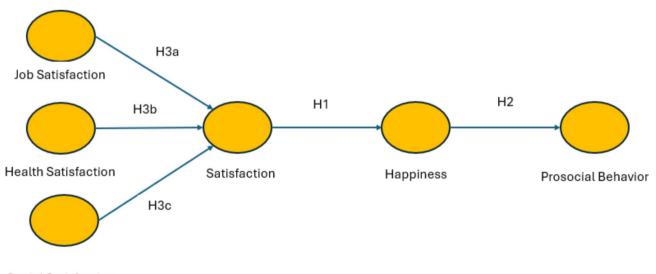
What do we understand by satisfaction? According to Hernández [26], satisfaction can be understood as fulfilling a desire or resolving a need in such a way that it brings about peace and tranquillity. People feel satisfied when they achieve a desire or reach a pre-established goal, resulting in well-being [27]. Locke [8] explained that satisfaction is related to emotions. This satisfaction temporarily increases levels of well-being [28], although its positive emotional results tend to fade over time if not regularly repeated [29–32].

Satisfaction is directly linked with happiness [6, 7, 33–35]. According to Lyubomirsky et al. [36], satisfaction is the perfect predictor of happiness and tends to maintain over time. For some authors, satisfaction is considered a prerequisite for happiness and well-being, fulfilling specific universal social needs [37]. In recent years, happiness has been a highly discussed topic in multidisciplinary academic circles [38–42]. Nowadays, we are more aware that our happiness is something we can control [2]. The relationship between satisfaction and happiness has been widely studied. They are two terms that many authors relate directly [43–47], and it is positive and direct [48, 49]. Therefore, the following hypotheses are proposed:

H1: Satisfaction has a positive influence on happiness.

As we have discussed, happiness has been widely studied in recent years. The UN stated that "the pursuit of happiness is a fundamental human goal and embodies the spirit of the globally agreed development goals known as the Millennium Development Goals" [50]. Happiness has been a perceptible phenomenon since time immemorial, and it seems obvious to consider it an intangible asset and an indispensable challenge to ensure the future and prosperity of human beings [51].

From this perspective, happiness provides meaning to life, giving purpose and direction and giving each of us a different notion of society [52]. It is one of the central components of subjective well-being. It determines, among other aspects, individuals' relationship with the rest of the groups to which people belong and their assessment of them [53]. Happiness is closely linked in many aspects of everyday life with relationships and interactions with society [54, 55]. It is indivisibly linked to certain moods or particular emotions that, in turn, may lead to better individual performance and a different evaluation of society as a whole [56]. The subjective happiness of each of us directly affects society's values and prosocial behaviours [57]. One of the perspectives from which the idea of happiness currently approaches is the relationship between happiness and the fulfilment of ethical norms, feeling useful, and having meaning in life [58]. Therefore, the relationship between happiness and prosocial behaviour standsout, understood as behaviour that conforms to socially accepted norms and has no apparent benefit for the actor but through which the actor voluntarily benefits the recipient [59]. This prosocial behaviour, according to several authors [60, 61], is positively related to subjective happiness to the extent that this subjective happiness conditions human behaviour [29, 62-65]. The willingness to contribute to society is closely linked to the subjective happiness of each



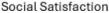


Fig. 1 Conceptual model and hypotheses. Source: own elaboration

individual [66, 67]. Participation in prosocial behaviour is likely related to the beliefs that a person holds, as various studies have shown [60, 68–71]. It is having positive beliefs about oneself (self-esteem), one's life (subjective happiness), and the future (optimism) associated with prosocial behaviour. These three beliefs reflect a general tendency to approach reality positively, being components of an underlying cognitive orientation, also called positivity [72]. From a circular perspective, subjective happiness translates into prosocial behaviour, reinforcing life satisfaction and happiness [59]. Therefore, the following hypotheses are proposed:

H2: Happiness has a positive influence on prosocial behaviour.

In this study, we also want to focus on those variables or aspects that define life satisfaction or satisfaction with life. Schnettler et al. [73] believe that health and social issues (family, friends) are the factors that influence people's life satisfaction the most. Diener et al. [15] also focused on life satisfaction. It considered nuances such as family, friends, leisure time, health, and work. Many authors have focused on the relationship between certain individual aspects, such as health and overall life satisfaction [74-77]. Others have focused on the relationship between social and life satisfaction [73, 75, 78]. Or on the relationship between work-related issues and our life satisfaction [14, 76, 79-85]. Several authors have also emphasised these three variables in recent years to refer to life satisfaction. Vargas [86] explained that satisfaction is the sum of many variables that must be appropriately covered. Among these variables are satisfaction with social life, satisfaction with health (physical and mental), and, finally, job and economic satisfaction.

In the stream of authors analysing the relationship between job and life satisfaction, Anisha and Jeba [87] studied people's daily lives and how their satisfactory or unsatisfactory work significantly influenced their perception of life. They concluded that the possibility of reconciling their personal life with their work life was one of the most important aspects when assessing their overall life satisfaction. Similarly, Alqahtani [88] emphasised this same approach; for this author, job satisfaction significantly influences an individual's life satisfaction. Stevenson and Wolfers [89] found a direct and positive relationship between job satisfaction and, ultimately, a person's income level with their subjective well-being and overall life satisfaction. Job satisfaction can be defined as the degree to which one likes their job [90], and it implies a positive or negative perspective through an emotional and cognitive evaluation of their experience [91]. This satisfaction, as well as dissatisfaction, is transmitted to the people around the worker [92]. Factors such as work conditions, human relationships, promotion opportunities, and organisation within the institution are used to measure it [93]. However, other aspects also influence it, such as participation in job design, living conditions associated with work, personal fulfilment, relationship with managers, recognition, and salary [94]. On the other hand, job dissatisfaction decreases the quality of work performed [95] and directly impacts a country's productivity [96]. Job satisfaction is the most common approach to examining happiness in organisational research [97]. Therefore, the following hypotheses are proposed:

H3a: Job satisfaction has a positive influence on satisfaction.

Similarly, to job satisfaction generating life satisfaction, various authors directly relate satisfaction with our health and well-being to life satisfaction [98]. The quality of our health, whether physical or mental, directly impacts our quality of life and satisfaction [99, 100]. Bilbao [101] directly discussed health, referring to it as the complete state of physical and mental well-being, a crucial need for well-being and life satisfaction. Several authors focused on this relationship between satisfaction with our health status and life satisfaction [15, 74-77, 86]. However, following the COVID-19 pandemic, this satisfaction with health has been diminished and, at times, has triggered certain life dissatisfaction [102]. For many authors, due to the COVID-19 pandemic, life satisfaction was reduced [103-107], due to increased mental health issues and anxiety caused by the illness [108].

Therefore, based on the different opinions, the following hypotheses are proposed:

H3b: Health satisfaction has a positive influence on satisfaction.

We have seen the importance of job satisfaction for humans. However, some authors have also emphasised the importance of work-life balance. It is being able to enjoy social life after work. Perceived life satisfaction is directly related to the value given to specific areas [109], such as the social one, with social isolation being one of the leading indicators of life dissatisfaction [110]. All types of social relationships directly influence people's life satisfaction [111, 112]. Studies on this topic are widespread, especially after the COVID-19 pandemic, as life satisfaction is considered to be closely related to social relationships, something that was reduced and resulted in a high degree of life dissatisfaction due to the COVID-19 pandemic [113–115]. Along the same lines, Páez et al. [116] discussed the close link between psychological and social well-being and life satisfaction, which is also directly associated with social integration, social contribution, and updating [117]. Keyes [118] and García et al. [119] pointed out that adequate social satisfaction must translate into adequate overall life satisfaction.

Therefore, the following hypotheses propose:

H3c: Social satisfaction has a positive influence on satisfaction.

### Methods

This research design used data from the latest survey by The European Social Survey (ESS). It is a pan-European research infrastructure providing freely accessible data for academics, policymakers, civil society and the wider public. The survey measures diverse populations' attitudes, beliefs and behaviour patterns in over thirty

Table 1 Sample collection

	Total of 25,311	%
Gender		
Male	12,284	48.53
Female	13,007	51.39
non-responded	20	0.08
Age		
less 21,	510	2.01
21–30	3,975	15.70
31–40	5,784	22.85
41–50	6,387	25.23
51–60	6,436	25.43
61–70	2,219	8.77
Country		
Austria	897	3.54
Belgium	594	2.35
Bulgaria	1,185	4.68
Switzerland	799	3.16
Cyprus	364	1.44
Czechia	1,019	4.03
Germany	4,031	15.93
Estonia	815	3.22
Spain	948	3.75
Finland	703	2.78
France	921	3.64
UnitedKingdom	473	1.87
Greece	951	3.76
Croatia	621	2.45
Hungary	861	3.40
Ireland	699	2.76
Israel	520	2.05
Iceland	465	1.84
Italy	872	3.45
Lithuania	614	2.43
Latvia	472	1.86
Montenegro	191	0.75
North Macedonia	457	1.81
Netherlands	796	3.14
Norway	846	3.34
Poland	786	3.11
Portugal	722	2.85
Serbia	501	1.98
Sweden	1,086	4.29
Slovenia	572	2.26
Slovakia	530	2.09

Source: compiled by the authors

nations. The ESS data is available free of charge for noncommercial use.

The collection period is between 2022 and 2023, and the sample reached 25,312 valid questionnaires. The composition of the sample is shown in Table 1. One of the essential features of this survey is that it is conducted in 31 European countries, both within and outside the EU, which gives it a highly representative nature as it provides a clear picture of the subject under study.

The survey is composed of more than 500 items. However, for our study, we have chosen only 11 items. The survey uses other items related to the created constructs, especially in the area of prosocial behaviour, with one of those items being environmental behaviour. However, since their loadings were below 0.3, even below 0.1, they did not contribute to the model and were excluded as they were not necessary for the study. Its composition is divided into four groups. The first corresponds to demographic characteristics; the second to items referring to different aspects encompassing the respondent's satisfaction; the third is a question about the level of happiness; and finally, questions about their prosocial behaviour. Table 2 summarises the number of ítems by variable. The scale used was a 10-point Likert-type answer format, being rated from 1 ("completely disagree") to 10 ("completely agree").

#### Statistical analysis

The purpose of analysing the information collected is to transform it into relevant information that assists the decision-making process. Several statistical techniques were applied to the data collected in the research, including a model prepared using Partial Least Squares Structural Equation Modeling (PLS-SEM). The programs used were IBM SPSS Statistic, DYANE 4 [120] and SmartPLS 4.1.0.0 [121]. Hair et al. [122, p. 144] recommend selecting PLS-SEM if the research is exploratory or an extension of an existing structural theory. Hair et al. [123] also recommend using PLS-SEM when measured constructs are part of the structural model, the structural model is complex (many constructs and many indicators), and the data are non-normally distributed. It is possible to find these issues in this model, including a very complex structural model that is presented in the first moment. This tool is adequate if the researchers intend to analyse the structural component and measurement in one model [124]. PLS-SEM is a method based on variance technique that, in many cases, is more appropriate than methods based on covariance modelling techniques.

## Results

# Measurement model: reliability and validity

Reliability and validity are related and would be the first step in a Partial Least Square (PLS) analysis. The way to

Construct	Item	Loading
	Do you have a work contract of?	0.78
Job Satisfaction	Which of the types of organisations do you work for?	0.92
	How is your daily work {is/was} organised?	0.84
HealthSatisfaction	How is your health in general?	1.00
Social Satisfaction	How often do you meet socially with friends, relatives or work colleagues?	1.00
Happiness	How happy are you?	1.00
Prosocial Behavior	They think people should always follow the rules, even when no one is watching.	0.85
	They need to get respect from others	0.92

# Table 2 Constructs and loadings

Source: compiled by the authors

#### Table 3 Internal consistency and AVE

	Cronbach's Alpha	Average Variance Extracted (AVE)	Composite Reliability (rho_a)	Composite Reliability (rho_c)
Job Satisfaction	0.81	0.73	0.85	0.89
HealthSatisfaction	1.00	1.00	1.00	1.00
Social Satisfaction	1,00	1,00	1,00	1,00
Happiness	1.00	1.00	1.00	1.00
Prosocial Behavior	0.73	0.78	0.77	0.88

Source: compiled by the authors

assess the reliability is to determine how each item relates to the latent constructs (see Table 2). Each scale consists of reflective items in our five distinct first-order latent constructs. To assess a measure's reliability, we used the rule of thumb to accept items with loadings of 0.707 or more [125, 126]. All of the loadings in this study exceed 0.78 for these and load more highly on their construct than on others [122]. When one loading is under the said minimum value, loadings of at least 0.5 are acceptable [127], and this is more necessary if, without this variable, the average variance extracted (AVE) value is decreasing. These results strongly support the reliability of the reflective measures because all first-order latent constructs were constructed with reflective measures. The main reason why this option is selected is that the effects when items are removed do not affect content validity, and the items are correlated. Cronbach's alpha and composite reliability (CR) assess internal consistency. As shown in Table 3, Cronbach's alpha values of around 0.7 are aceptable [128]. It is possible to increase the  $\alpha$  coefficient simply by increasing the number of items in the analysis. Using the CR value is therefore recommended. A CR value of 0.70 suggests a "stricter" degree of reliability applicable in basic research [129]. For this internal consistency, the AVE is also used, and a value at least equal to 0.5 is recommended (for all the coefficients of each set of reflective measures in the study, the AVE exceeds 0.5).

At this point, it is necessary to show that the measures should not be related to establishing discriminant validity. The AVE is used to assess discriminant validity by comparing the square root of the AVE with the correlations among constructs. In this study, the square root of the AVE is greater than the correlation between the constructs [130]. These statistics suggest that each construct relates more strongly to its measures than to measures of other constructs. The Heterotrait-Mono-trait Ratio of Correlations (HTMT) is also commonly used as another option to assess the discriminant validity between two reflective constructs in the PLS-SEM model. After running the bootstrapping routine (5,000 bootstrap samples in this case), all the coefficients in the study have a value below the recommended maximum value, which is established at 0.9 between two reflective constructs.

#### Structural model: goodness of Fit statistics

Absolute fit indices were included in PLS models [131]. These indices indicate how well a model fits the sample data [132]. Researchers should be very cautious in reporting and using model fit in PLS-SEM [115]. The Standardised Root Mean Square Residual (SRMR) is one of the most widely used. It is a goodness-of-fit measure for PLS-SEM that can be used to avoid model misspecification [131]. This index is the difference between the observed and model-implied correlation matrices. A value less than 0.10 indicates an excellent fit to the data [133]. For this model, the SRMR is 0.13, suggesting an almost acceptable model fit. However, this value is applicable to the CB-SEM context. In PLS-SEM, a threshold value has yet to be defined. Despite that, the value is very close to the one indicated for CB-SEM, and since the rest of the values are adequate, we consider it to be within limits. The model's results (Table 4) also suggest that the dimensions explain a significant variance in satisfaction, happiness, and prosocial behaviour, with R2 values of 0.96, 0.70 and 0.68, respectively. The same

#### Table 4 Goodness of Fit statistics

	R-square	R-square adjusted	Q2 predict
Satisfaction	0.96	0.96	0.96
Happiness	0.70	0.70	0.69
Prosocial Behavior	0.68	0.68	0.46
c			

Source: compiled by the authors

variables' Stone–Geisser (Q2) results are 0.96, 0.69 and 0.46, respectively, where values more significant than zero indicate an excellent model's predictive relevance.

# **Results of SEM**

The results of the conceptual model (see Fig. 2) show how job, health, and social satisfaction influence satisfaction, which is a second-order construct. With a coefficient of 0.87 and 0.85, respectively, the results suggest that the social dimension of satisfaction has the most significant favourable influence on satisfaction. However, job satisfaction has a critical and similar influence, too. This situation is followed by the health dimension, which also influences satisfaction, but to a lesser extent. (with a coefficient value of 0.51). Por lo tanto, las hipótesis H3a, H3b y H3c se confirman, aunque la H3b en una medida menor que el resto de las hipótesis (Table 5).

On the other hand, the influence of satisfaction on happiness is also powerful, with a coefficient of 0.84, so we accept hypothesis H1. For the hypothesis that attempts to discover the relationship between happiness and prosocial behaviour, it is evident that the relationships are acceptable and positive (with value coefficients of 0.83). The H2 hypotheses are not rejected.

Finally, it is relevant to analyse the results of indirect effects (Table 6). The indirect effect of job satisfaction and happiness is vital (0.39). The influence of social

# **Table 5** Summary of Hypothesis Verification

Hypothesis	Content	Verification
H1	Satisfaction has a positive influence on happiness	Supported
H2	Happiness has a positive influence on prosocial behaviour	Supported
H3a	Job satisfaction has a positive influ- ence on satisfaction with life	Supported
H3b	Health satisfaction has a positive influ- ence on satisfaction with life	Supported
H3c	Social satisfaction has a positive influ- ence on satisfaction with life	Supported

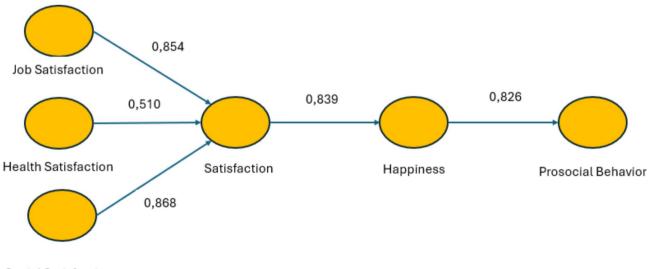
Source: compiled by the authors

#### Table 6 Direct and indirect effects<sup>1</sup>

0.46 0.26 0.50 0.84 0.83	
0.50 0.84	
0.84	
0.83	
	0.39
	0.22
	0.42
	0.32
	0.18
	0.35
	0.69

Significant path coefficients (at p < 0.01)

Source: compiled by the authors



Social Satisfaction

Fig. 2 Results. Source: own elaboration

satisfaction on happiness is significant, too (0.42). On the other hand, the indirect influence between health satisfaction and happiness is not as high as one might expect, probably because most people, especially after the COVID-19 pandemic and a period of anxiety about health issues, prefer their lives to focus on more social aspects and stability in their work. The high influence (0.69) of life satisfaction on prosocial behaviour could also be highlighted.

# Discussion

# **Theoretical implications**

This study aims to analyse the relationships between satisfaction and happiness [43-47], between happiness and prosocial behavior [60-64, 70, 71, 134], and indirectly, as one of the most critical components that generate general satisfaction, which is job satisfaction [14, 15, 73, 79-83], which has a significant relationship with the happiness and prosocial behavior of individuals. As mentioned earlier, the satisfaction-happiness relationship is an exciting aspect of the current scientific literature [1, 2].

On the other hand, the relationship between job satisfaction and social satisfaction [13, 14] is a prominent aspect. This study can serve as a starting point for understanding the importance of job satisfaction or dissatisfaction [89, 90, 92, 135], and from an academic perspective, the proposed Structural Equation Modelling (SEM) model can be applied in various studies to analyse the relationship between these variables, even those that have a less direct relationship with happiness. The broad nature of the "prosocial behaviour" variable can be applied to studies that use a part of this prosocial behaviour, such as sustainable pro-environmental behaviour [136].

Additionally, this work serves to demonstrate the positive qualities of the European Social Survey and its usefulness for conducting studies on social issues both in Europe and in the various countries included in the survey. Therefore, it offers a broad vision of this study for use by those researchers who require it.

In summary, the importance of both satisfaction and happiness has been demonstrated, with social and job satisfaction being particularly relevant in studying their influence on individual prosocial behaviour. Exciting results have been obtained at the European level, with a vast sample size, which draws valuable conclusions from a theoretical standpoint that can be applied to many studies on happiness and satisfaction in the post-COVID era.

#### Managerial implications

From a managerial point of view, this study can serve as an indicative guide for European state administrations and national and international companies to focus their efforts on understanding the most critical aspects that influence workers [88]. This study has demonstrated that the three aspects most valued by European workers are the type of company they work for, the freedom to organise their work (telecommuting, flexible hours), and the type of contract [93]. All of these are direct responsibilities of employers, both in public and private companies. These aspects and social satisfaction lead to high individual satisfaction [97]. Therefore, achieving work-life balance is crucial to satisfaction, happiness [89] and individual prosocial behaviour [57].

In summary, organisations should prioritise the happiness and satisfaction of their employees, as we have demonstrated that this directly influences their prosocial behaviour. From a business perspective, it would be interesting to consider this when implementing human resources policies, focusing more on aspects such as the possibility of balancing work and personal life. This way, they can ensure happy employees and workers with excellent social conduct, contributing to better coexistence.

### Social implications

From a social standpoint, happiness and satisfaction are two crucial social variables [137]. As we have observed, both aspects significantly influence prosocial behaviour in society [13, 19, 22]. Prosocial behaviour is actions that conform to socially accepted norms and do not provide any noticeable benefit to the actor but voluntarily benefit the recipient [59]. A vital point of this definition is that it is a selfless, altruistic behaviour [138–141], focused on others, and shapes our relationships with them [29, 62-64]. Therefore, it is essential to understand how this behaviour forms, how it is shaped, and how it changes over time to foster an optimally socially cohesive society [141]. From a social perspective, personal happiness creates a positive predisposition to engage in active and positive prosocial behaviour, as demonstrated in the study. Hence, this analysis and the model developed could be utilised from the social sciences standpoint to examine how this behaviour is created and modified.

In summary, society considers happiness and satisfaction, especially regarding job and social satisfaction, as crucial study points to analyse how individuals behave from a social perspective. This study, analysis, and model were developed to serve as tools for conducting this work with a solid foundation. Both civil organisations and government institutions can use them to reach valid and useful conclusions from a social standpoint.

# Limitations and future research

The limitations of this study are evident. Firstly, it was conducted during a pandemic period when our social, work-related, personal, and health-related relationships had changed. Therefore, it would be interesting to conduct it once the psychological and physical aftermath of COVID-19 on society has been overcome. Secondly, there is a need to expand the study on prosocial behaviour to variables beyond psychology and the social standpoint, particularly in areas such as sustainability, the environment, and climate change. Working on the relationship between satisfaction, happiness, and sustainable behaviour would be interesting. And thirdly, the study was conducted using data from all of Europe as a whole, and it could have been carried out by focusing on the different areas of Europe, and checking if the data from The World Happiness Report corresponds with our study.

Indeed, this study is extensive, with many surveys conducted in the European continent. It would be interesting to replicate this research in other continents to compare the results across different regions and cultures worldwide. However, this endeavour is highly ambitious and requires significant resources that may take time.

Comparing future waves of the study's results would be valuable. During the year 2024, the new wave of surveys (wave 11) is being conducted, and in the future, we will be able to compare the results with the current study, Additionally, utilising data from previous periods, such as pre-COVID or even pre-2008 financial crisis, which the survey has collected since 2002, could provide insights into whether there have been changes. This longitudinal approach would allow for a deeper understanding of how job satisfaction influences overall satisfaction and happiness and whether these relationships have evolved over the years due to societal, economic, or other changes.

Additionally, the construct 'social satisfaction' used in the study encompasses a large number of variables such as satisfaction with family life, satisfaction with friendships, satisfaction with the environment, etc., which could be a future line of research to determine which aspects of our social life provide the most satisfaction and happiness.

### Conclusions

After conducting the empirical study and analysing the results from the model presented, we can see a direct and solid relationship between individual satisfaction and happiness. We have also shown a direct relationship between happiness levels and prosocial behaviour in individuals. As explained earlier, this is crucial from a business and social perspective, as it elucidates why people tend to behave as they do. Furthermore, we have delved into the underlying factors of satisfaction, given its influence on happiness and, subsequently, on individual behaviour towards society. We aimed to determine which aspects of satisfaction are the most significant. Our findings indicate that having a satisfactory social life and being satisfied with one's job are the two variables that exert the most significant influence on this satisfaction,

with health also being essential but not the most crucial. The proximity of the COVID-19 crisis may have influenced this, as individuals worldwide were highly focused on their health. At the same time, the social aspect of their lives is put on hold due to lockdowns and restrictions imposed by various governments. Once these measures lift, individuals realise the importance of fulfilling personal and social lives alongside their work lives. As we have demonstrated, this significantly impacts their happiness and, consequently, their prosocial behaviour. Therefore, as previously mentioned, public and private organisations should make decisions based on these variables that profoundly impact people's lives. It will directly affect the lives of other individuals in each nation or region.

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#### Author contributions

P.C-V, A.P-L, J.M.L-S and R.R-R have actively participated in the creation of the paper. P.C-V, A.P-L, J.M.L-S and R.R-R have actively participated in data collection. P.C-V, A.P-L, J.M.L-S and R.R-R have actively participated in conceptualization. P.C-V, A.P-L, J.M.L-S and R.R-R have actively participated in design. P.C-V, A.P-L, J.M.L-S and R.R-R have actively participate in writing the paper. And P.C-V, A.P-L, J.M.L-S and R.R-R have actively participated reviewed the manuscript.

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#### Data availability

The data used for the study are freely and openly available at https://www. europeansocialsurvey.org/ can be downloaded at any time by anyone.

#### Declarations

### Ethics approval and consent to participate

The data collection for this study was carried out by an organization independent of the paper's authors, and all EU regulations were adhered to. The age of the participants in the current study ranged from 18 to 70 years old.

#### **Consent for publication**

Not applicable.

#### **Competing interests**

The authors declare no competing interests.

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#### References

- Cuesta OJ. La construcción De La Felicidad como objeto de estudio y su posible abordaje desde El Campo De La comunicación. Revista Luciérnaga Comunicación. 2019;11(21):140–55.
- Veenhoven R, Chiperi F, Kang X, Burger M. Happiness and consumption: a research synthesis using an online finding archive. SAGE Open. 2021;January–March:1–21.
- Seligman MEP. Authentic happiness: using the new positive psychology to Realise your potential for lasting fulfillment. New York: Free; 2002.

- Seligman MEP, Rashid T, Parks AC. Positive psychotherapy. Am Pshychol. 2006;61(8):774–88.
- Deb S, Thomas S, Bose A, Aswathi T. Happiness, meaning, and satisfaction in life as perceived by Indian University students and their association with spirituality. J Relig Health. 2020;59:2469–85.
- 6. Diener E. Subjective well-being: the science of happiness and a proposal for a national index. Am Psychol. 2000;55(1):34–43.
- Sonnentag S. Dynamics of well-being. Ann Rev Organ Psychol Organ Behav. 2015;2(1):261–93.
- Locke EA. What is job satisfaction? Organ Behave hum Perform. 1969;4(4):309–36.
- Morán, MC, Fínez MJ, Fernández-Abascal EG. On happiness and its relationships to personality types and traits. Clínica Y Salud. 2017;28(2):59–63.
- Diener E, Lucas RE, Oishi S. Subjective well-being: the science of happiness and life satisfaction. In: Syder CR, Lopez SJ, editors. Handbook of positive psychology. Oxford: Oxford University Press; 2001. pp. 463–73.
- 11. Avey J, Luthans F, Smith S, Palmer N. Impact of positive psychological capital on employee well-being over time. J Occup Health Psych. 2010;15:17–28.
- 12. Shabani M, Taheri–Kharameh Z, Saghafpour A, Ahmari–Tehran H, Yoosefee S, Amini–Tehrani M. Resilience and spirituality mediate anxiety and life satisfaction in chronically III older adults. BMC Psychol. 2023;11:256.
- Rivera D, Cruz C, Muñoz C. Satisfacción en las relaciones de pareja en la adultez emergente: El Rol Del apego, la intimidad Y La depresión. Terapia Psicológica. 2011;29:77–83.
- Vera-Villarroel P, Cells-Atenas K, Pavez P, Lillo S, Bello F, Díaz N, López W. Money, age and happiness: Association of subjective well-being with sociodemographic variables. Revista Latinoam De Psicología. 2012;44:155–63.
- Diener E, Suh EM, Lucas RE, Smith HL. Subjective Well-Being: three decades of Progress. Psychol Bull. 1999;125(2):276–302.
- Lyubomirsky S. The how of happiness: a New Approach to getting the Life you want. London: Penguin Books; 2020.
- 17. Oishi S, Schimmack U. Culture and well-being: a new inquiry into the psychological wealth of nations. Perspect Psychol Sci. 2010;5(4):463–71.
- Kuppens P, Realo A, Diener E. (2008). The role of positive and negative emotions in life satisfaction judgment across nations. J Personality Soc Psycho, 2008; 95(1):66–75.
- Vargas-Merino JA, Innovación. social. ¿Nueva cara de la responsabilidad social? Conceptualización crítica desde la perspectiva universitaria. Rev Cienc Soc-Venez. 2021;27(2):435.450.
- Li J, Wei H, Zhang Y. (2023). Relationship between Prosocial Behavior and Psychological Well-Being among Adolescents. Eur J Invest Health, Psycho Educ. 2023;13(1):123–136.
- 21. Harbaugh WT, Mayr U, Burghart DR. (2007). Neural Responses to Taxation and Voluntary Giving Reveal Motives for Charitable Donations. Sci. 2007;316(5831):1622–1625.
- 22. Lyubomirsky S, KingL, Diener E. The benefits of frequent positive affect: ¿Does happiness lead to success? Psychol Bull. 2005;131(6):803–55.
- Dunn EW, Aknin LB, Norton MI. Prosocial spending and happiness: using money to Benefit others pays off. Curr Dir Psychol Sci. 2023;22(5):187–92.
- 24. Gefen D, Straub D, Boudreau MC. (2000). Structural equation modeling and regression: guidelines for research practice. Commun. AIS. 2000:4;1–77.
- Compeau D, Higgins CA, Huff S. (1999). Social cognitive theory and individual reactions to computing technology: A longitudinal study. MIS Q. 1999;23:145–158.
- 26. Hernández P. La Importancia De La satisfacción Del Usuario. Documentación De las Ciencias de la Información. 2011;34:349–68.
- 27. Han H, Gao Q. Does welfare participation improve life satisfaction? Evidence from panel data in rural China. J Happiness Stud. 2020;21:1795–822.
- Rohden SF, Tassinari G, Netto CF. Listen as much as you want: the antecedents of the engagement of podcast consumers. Int J Internet Mark Advertising. 2023;18(1):82–97.
- Emmons RA. An introduction. In: Emmons RA, McCullough ME, editors. The psychology of gratitude. New York: Oxford University Press; 2004. pp. 3–16.
- Seligman MEP, Steen TA, Park N, Peterson C. Positive psychology progress: empirical validation of interventions. Am Psychol. 2005;60:410–21.
- Cuesta-Valiño P, Gutiérrez-Rodríguez P, Loranca-Valle C. Sustainable management of sports federations: the indirect effects of perceived service on member's loyalty. Sustainability. 2021;13:458.
- Mosehni MZ, Titkanloo SJ. The impact of social media marketing activities on student desires: analysing the mediating role of brand identity, perceived value, and satisfaction. Int J Internet Mark Advertising. 2022;16(3):271–96.

- Borooah VK. What makes people happy? Some evidence from Northern Ireland. J Happiness Stud. 2006;7:427–65.
- Loranca-Valle C, Cuesta-Valiño P, Nuñez-Barriopedro E, Gutiérrez-Rodríguez P. Management of loyalty and its main antecedents in sport organizations: a systematic analysis review. Front Psychol. 2021;12:783781.
- Aricioglu A, Kaya S. Abusive behaviours in relationships, need satisfaction, conflict styles and relationship satisfaction: mediation and moderation roles. BMC Psychol. 2023;11:160.
- Lyubomirsky S, Tkach C, Dimatteo MR. What are the difference between happiness & self-esteem? Soc Indic Res. 2006;78:363–404.
- 37. Delsignore G, Aguilar-Latorre A, Oliván-Blázquez B. Measuring happiness in the social sciences: an overview. J Sociol. 2021;57(4):1044–67.
- Chia A, Kern ML, Neville BA. CSR for Happiness: corporate determinants of societal happiness as social responsibility. Bus Ethics. 2020;29:422–37.
- Cuesta-Valiño P, Gutiérrez-Rodríguez P, Contreras-Contreras P. Consumer happiness: origin and development of the concept. Anduli. 2023;23:83.
- Penelas-Leguía A, Nuñez-Barriopedro E, López-Sanz JM, Ravina-Ripoll R. Positioning análisis of Spanish politicians through their Twitter post versus Spanish public opinión. Humanit Soc Sci Commun. 2023;10:307.
- Nuñez-Barriopedro E, Penelas-Leguía A, López-Sanz JM, Loranca-Valle C. A public service management model as an antecedent for citizen satisfaction and fiscal policy. Manage Decis. 2023;62(2):725–39.
- López-Sanz JM, Penelas-Leguía A, Gutiérrez-Rodríguez P, Cuesta-Valiño P. Sustainable development and rural tourism in depopulated areas. Land. 2021;10(9):985.
- Headey BW, Wearing AJ. Coping with the social environment: the relationship between life events, coping strategies and psychological distress. Aust NZ J Publ Heal. 2010;12(4):444–52.
- 44. Cummins RA. Objective and subjective quality of life: an interactive model. Soc Indic Res. 2000;52:55–72.
- 45. Ramia I, Voicu M. Life satisfaction and happiness among older europeans: the role of active ageing. Soc Indic Res. 2022;160:667–87.
- Cuesta-Valiño P, Loranca-Valle C, Nuñez-Barriopedro E. La promoción del deporte a través de la felicidad del deportista federado en Kárate. aDResearch. 2020;21(21):48–69.
- Loranca-Valle C, Cuesta-Valiño P, Nuñez-Barriopedro E. Gestión De calidad como estrategia clave de la felicidad en El deporte federado. Retos. 2019;9(18):203–18.
- Arechavala NS, Espina PZ, Trapero BP. The economic crisis and its effects on the quality of life in the European Union. Soc Indic Res. 2015;120(2):323–43.
- Ruggeri K, García-Garzón E, Maguire Á, Matz S, Huppert FA. Well-being is more than happiness and life satisfaction: a multidimensional analysis of 21 countries. Health Qual Life Out. 2020;18:192.
- ONU. (2011). Happiness should have greater role in development policy UN Member States, 30 de enero. Available online: https://bit.ly/2MAwgKf
- Ravina-Ripoll R, Domínguez. J, Montañes MA. Happiness management en la época de la industria 4.0. RETOS. 2019;9(18):189–203.
- Pareja LB, Barbachán EA, Sánchez F. Felicidad Y comportamiento prosocial en estudiantes de educación de una universidad pública. Conrado. 2019;15(70). Available inhttp://scielo.sld.cu/scielo.php?script=sci\_arttext&pi d=S1990-86442019000500183
- 53. Castellanos R. La Importancia Y utilidad del bienestar subjetivo para y desde la administración pública. Buen Gobierno. 2020;28:22–39.
- Sanagustín-Fons MV, Tobar-Pesántez LB, Ravina-Ripoll R. Happiness and cultural tourism: the perspective of civil participation. Sustainability. 2020;12(8):3465.
- Fernández-Berrocal P, Extremera N. La Inteligencia Emocional Y El Estudio De La Felicidad. Revista Interuniversitaria De Formación Del Profesorado. 2009;66(23,3):85–108.
- Seligman MEP, Csikszentmihalyi M. Positive psychology: an introduction. Am Psychol. 200;55(1):5–14.
- 57. Zhang Y. The role of emotions in the relationship between prosocial values and behaviours. Soc Behav Pers. 2022;50(9):e11847.
- Ravina-Ripoll R, Foncubierta-Rodríguez MJ, Sanagustín-Fons MV. ¿Son felices Los emprendedores españoles en El Siglo XXI? Un Estudio Cuantitativo a través de la encuesta del Centro De Investigaciones Sociológicas (CIS). CAU-RENSIA. 2021;XVII:455–72.
- Bénabou R, Tirole J. Incentives and prosocial behavior. Am Econ Rev. 2006;96(5):1652–78.
- Moynihan DP, DeLeire T, Enami K. A life worth living: evidence on the relationship between prosocial values and happiness. Am Rev Public Adm. 2015;45(3):311–26.

- Fredrickson BL. Positive emotions broaden and build. Adv Exp Soc Psychol. 2013;47:1–53.
- 63. McCullough ME. Forgiveness as human strength: theory, measurement, and links to well-being. J Soc Clin Psychol. 2020;19:43–55.
- 64. Tsang J. The effects of helper intention on gratitude and indebtedness. Motiv Emot. 2006;30:199–205.
- Yang F, Jiang Y, Bai X, Cai Y, Duan H. Social equity perception and public mental health: a Chinese study with panel data. BMC Psychol. 2023;11:263.
- Giovanis E, Ozdamar O. Who is left behind? Altruism of giving, happiness and mental health during the COVID-19 period in the UK. Appl Res Qual Life. 2022;17(1):251–76.
- 67. Post SG. Altruism, happiness, and health: it's good to be good. Int J Behav Med. 2005;12(2):66–77.
- 68. Baumsteiger R. Looking forward to helping: the efects of prospection on prosocial intentions and behavior. J Appl Soc Psychol. 2017;47(9):505–14.
- 69. Fu X, Padilla-Walker LM, Brown MN. Longitudinal relations between adolescents' selfesteem and prosocial behavior toward strangers, friends and family. J Adolescence. 2017;57:90–8.
- Zhang H, Zhao H. Infuence of urban residents' life satisfaction on prosocial behavioral intentions in the community: a multiple mediation model. J Community Psychol. 2021;49(2):406–18.
- Heidari S, Nasiri S, Rahmani D, Nargesi S. Can personalised prosocial ads be harnessed for brand equity enhancement? Int J Internet Mark Advert. 2023;19(3/4):305–27.
- 72. Laguna M, De Longis E, Mazur-Socha Z, Alessandri G. Explaining Prosocial Behavior from the inter-and within-individual perspectives: a role of positive orientation and positive affect. J Happiness Stud. 2022;23:1599–615.
- Schnettler B, Denegri M, Miranda H, Sepúlveda J, Mora M, Lobos G. Satisfaction with life and with food-related life in central Chile. Psicothema. 2014;26:200–6.
- Boehm JK, Kubzansky LD. The heart's content: the association between positive psychological well-being and cardiovascular health. Psychol Bull. 2012;138(4):655–91.
- Chyi H, Mao S. The determinants of happiness of China's elderly population. J Happiness Stud. 2012;13:167–85.
- Schnettler B, Miranda H, Sepúlveda J, Orellana L, Denegri M, Mora M, Lobos G. Variables que influyen en la satisfacción con la vida de personas de distinto nivel socioeconómico en El sur de Chile. Suma Psicológica. 2014;21(1):54–62.
- Veenhoven R. Healthy happiness: effects of happiness on physical health and the consequences for preventive health care. J Happiness Stud. 2008;9(3):449–69.
- Masuda AD, Sortheix FM. Work-family values, priority goals and life satisfaction: a seven-year follow-up of MBA students. J Happiness Stud. 2012;13:1131–44.
- Agrawal J, Murthy P, Philip M, Mehrotra S, Thennarasu K, John JP, Thippeswamy V, Isaac M. Socio-demographic correlates of subjective well-being in urban India. Soc Indic Res. 2011;101:419–34.
- Cracolici MF, Giambona F, Cuffaro M. The determinants of subjective economic well-being: an analysis on italian-silc data. Appl Res Qual Life. 2012;7:17–47.
- Cummins RA. Personal income and subjective well-being: a review. J Happiness Stud. 2000;1:133–58.
- Oshio T, Kobayashi M. Area-level income inequality and individual happiness: evidence from Japan. J Happiness Stud. 2011;12:633–49.
- Salinas-Jiménez MM, Artés J, Salinas-Jiménez J. Income, motivation, and satisfaction with life: an empirical analysis. J Happiness Stud. 2012;11:779–93.
- Reyes-Ramírez LA, Leyva-del Toro C, Pérez-Campdesuñer R, Sánchez-Rodríguez A. (2022). Variables de la responsabilidad social corporativa. Un modelo de ecuaciones estructurales. Retos. Rev Cienc Adm Econ. 2022;12(24):286–305.
- Castañeda-Santillán LL, Sánchez-Macías A. (2022). Satisfacción laboral y burnout en personal docente. Retos. Rev Cienc Adm Econ. 2022;12(24):230–246.
- Vargas Bl. Social well-being, life satisfaction, and personal characteristics of violence. Revista Especializada en Ciencias de la Salud. 2020;23(1–2):22–30.
- Anisha B, Jeba CL. Work-life balance and job satisfaction: a review of the literature. Mathan: J Commer Manage. 2020;7(2):108–16.
- Alqahtani TH. Work-Life Balance of women employees. Granite J. 2020;4(1):37–42.

- Stevenson B, Wolfers J. Subjective well-being and income: is there any evidence of satiation? Am Econ Rev. 2013;103(3):598–604.
- Nieto D, Suárez J. Evaluación de la satisfacción laboral del profesorado y aportaciones a su mejora en orden a la calidad de la educación. Revista Española De Orientación Y Psicopedagogía. 2010;21(2):283–94.
- Pujol-Cols L. Satisfacción Laboral en docentes universitarios: medición y estudio de variables influyentes. REDU Revista De Docencia Universitaria. 2016;14(2):261–92.
- Porras N, Parra L. La Felicidad en El Trabajo: entre El Placer Y El sentido. Equidad Y Desarrollo. 2019;1(34):181–97.
- Güell L. Estudio de la satisfacción laboral de los maestros (tesis doctoral). Doctorado en Ciencias Humanas, Sociales y Jurídicas, Universidad Internacional de Cataluña, Barcelona. 2014.
- 94. Anaya D, Suárez JM. Evaluación de la satisfacción laboral del profesorado y aportaciones a su mejora en orden a la calidad de la educación. Revista Española De Orientación Y Psicopedagogía REOP. 2010;21(2):283–94.
- Rodríguez AL, Raga V. Sobre La relación entre felicidad, satisfacción laboral y compromiso organizacional docente en una institución educativa de Medellín. Latinoam De Estudios Educativos. 2021;17(2):117–42.
- DiMaria CH, Peroni C, Sarracino F. Happiness matter: productivity gains from subjective well-being. J Happiness Stud. 2020;21(1):139–60. https://mpra. ub.uni-muenchen.de/77864/1/MPRA\_paper\_56983.pdf.
- 97. Wright TA. The emergence of job satisfaction in organisational behaviour: a historical overview of the dawn of job attitude research. J Manag Hist. 2006;12(3):262–77.
- Shi Y, Joyce C, Wall R, Orpana H, Bancej C. A life satisfaction approach to valuing the impact of health behaviours on subjective well-being. BMC Public Health. 2019;19:1547.
- Lucas RE, Diener E, Suh E. Discriminant validity of well-being measures. J Pers Soc Psychol. 1996;71:616–28.
- Gómez V, De Posada CV, Barrera F, Cruz JE. Factores predictores de bienestar subjetivo en una muestra colombiana. Revista Latinoam De Psicología. 2007;39(2):311–25.
- 101. Bilbao M. Creencias Sociales y Bienestar: valores, creencias básicas, impacto de los hechos vitales y crecimiento psicológico. 2008. Tesis Doctoral. Facultad de Psicología, Universidad del País Vasco.
- 102. Pérez L, Escandell FM, Macia L. Percepción De La Salud en Los pacientes durante la pandemia COVID19. Enfermería Global. 2022;69:84–93.
- Gundogan S. The mediator role of the fear of COVID-19 in the relationship between psychological resilience and life satisfaction. Curr Psychol. 2021;40(21):6291–9.
- Rogowska AM, Kuśnierz C, Bokszczanin A. Examining anxiety, life satisfaction, general health, stress and coping styles during COVID-19 pandemic in Polish sample of university students. Psychol Res Behav Manage. 2020;13:797–811.
- Blasco-Belled A, Tejada-Gallardo C, Torrelles-Nadal C, Alsinet C. The costs of the COVID-19 on subjective well-being: an analysis of the outbreak in Spain. Sustainability. 2020;12(15).
- Özmen S, Özkan O, Özer Ö, Yanardağ MZ. Investigation of COVID-19 fear, well-being and life satisfaction in Turkish society. Soc Work Public Hlth. 2021;2(36):1–14.
- 107. Gawrych M, Cichoń E, Kiejna A. COVID-19 pandemic fear, life satisfaction and mental health at the initial stage of the pandemic in the largest cities in Poland. Psychol Health Med. 2021;26(1):107–13.
- Liu S, Song M, Teng H. Postgraduates' time management disposition and mental health: mediating role of life satisfaction and moderating role of core selfevaluations. BMC Psychol. 2023;11:316.
- 109. Perugache AP, Caicedo AL, Barón KA, Tenganan DS. Educación emocional y satisfacción con la vida percibida en un grupo de adultos mayores. Revista Colombiana De Ciencias Sociales. 2016;7(2):312–31.
- Clair R, Gordon M, Kroon M, Reilly C. The effects of social isolation on wellbeing and life satisfaction during pandemic. Hum Soc Sci Comm. 2021;8:28.
- 111. Cheng W, Song W, Ye C, Wang Z, Family Networks. Social Networks, and Life Satisfaction of Older Adults in China. Healthc. 2022;10(8):1568. https://doi. org/10.3390/healthcare10081568
- Moyano E, Ramos N. Bienestar Subjetivo: Midiendo satisfacción vital, felicidad y salud en población chilena de la Región Maule. Universum (Talca). 2007;22(2):177193.
- 113. Raza SA, Qazi W, Umer B, Khan KA. Influence of social networking sites on life satisfaction among university students: a mediating role of social benefit and social overload. Health Educ J. 2021;120(2):141–64.

- 114. Senra FC, Delerue AM, da Silva G, Sequeira AF. The importance of social participation for life satisfaction among spouse caregivers aged 65 and over. Health Soc Care Commun. 2022;30(5).
- Su Y, D'Arcy C, Li M, Meng X. Trends and patterns of life satisfaction and its relationship with social support in Canada, 2009 to 2018. Sci Rep-UK. 2022;12;9720.
- 116. Páez D, Morales F, Fernández I. Las Creencias básicas Sobre El Mundo social y El yo. In: Morales JF, Moya M, Gavíria E, Cuadrado I, editors. Psicología Social. Tercera Edición. Madrid: McGraw Hill; 2007. pp. 195–211.
- Blanco A, Díaz D. El Bienestar social: su concepto y medición. Psicothema. 2005;17(4):582–9.
- 118. Keyes C, Shmotkin D, Ryff C. Optimising well-being: the empirical encounter of two traditions. J Pers Soc Psychol. 2002;82:1007–22.
- García B, Salvaj E, Cuesta-Valiño P. A sustainable management model for cultural creative tourism ecosystems. Sustainability. 2020;12:9554.
- Santesmases M. DYANE versión 4. Diseño y análisis de encuestas en investigación social y de mercados. Madrid:Pirámide. 2009.
- 121. Ringle CM, Wende S, Becker JM, SmartPLS. Boenningstedt:SmartPLSGmbH. 2015.
- 122. Hair J, Ringle C, Sarstedt M. PLS-SEM: indeed a silver bullet. J Mark Theor Pract. 2011;19:139–52.
- 123. Hair JF, Hult GTM, Ringle CM, Sarstedt M. A primer on partial least squares structural equation modeling (PLS-SEM), 2nd ed, Thousand Oaks:Sage; 2017.
- 124. Gefen D, Karahanna E, Straub DW. Trust and TAM in online shopping: an integrated model. MIS Quaterly. 2003;27(1):51–90.
- Cuesta-Valiño P, Gutiérrez-Rodríguez P, Loranca-Valle C. Sponsorship image and value creation in E-sports. J Bus Res. 2022;145:198–20.
- 126. Kancherla A, George JP, Godwin BJ. Antecedents of brand love leading to purchase intentiontowards refurbished video game consoles. Int J Internet Mark Advertising. 2023;19(3/4):286–304.
- 127. Barclays DW, Higgins CA, Thompson R. The partial least squares (PLS) approach to causal modeling: personal computer adoption and use as an illustration. J Manage Inf Syst. 1995;1:167–87.
- Çil E, Erkan I, Mogaji E. Social media marketing and consumer behaviour in the newnormal: the relationship between content and interaction. Int J Internet Mark Advertising. 2023;19(3/4):328–49.
- 129. Nunnally JC, Bernstein IH. Psychometric theory. 3rd ed. New York: McGraw-Hill; 1994.
- Fornell C, Larcker DF. Structural equation models with unobservable variables and measurement error: algebra and statistics. J Mark Res. 1981;18:382–8.

- Henseler J, Dijkstra TK, Sarstedt M, Ringle CM, Diamantopoulos A, Straub DW, Ketchen DJ, Hair JF, Hult GTM, Calantone RJ. Common beliefs and reality about PLS: comments on Rönkkö & Evermann. Organ Res Methods. 2014;17:182–209.
- 132. McDonald RPR, Ringo M-H. Principles and practice in reporting structural equation analyses. Psychol Methods. 2012;7:64–82.
- Hu L-T, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. Struct Equation Modeling: Multidisciplinary J. 1999;6:1–55.
- Emmons RA, McCullough ME. Counting blessings versus burdens: an experimental investigation of gratitude and subjective well-being in daily life. J Pers Soc Psychol. 2003;84:377–89.
- Agrebi M, Chandon JL, Zaichkowsky JL. Customer satisfaction and loyalty with corporate multi-brand websites in an era of social media and misinformation. Int J Internet Mark Advertising. 2022;16(4):394–421.
- Contreras-Contreras P, Cuesta-Valiño P, Gutiérrez-Rodríguez P. Happiness and its relationship to expectations of change and sustainable behaviour in a post-COVID-19 world. J Manage Dev. 2023;42(6):458–82.
- Jia Q, Zhou J, Huang M. Life satisfaction predicts perceived social justice: the lower your life satisfaction, the less just you perceive society to be. Front Psychol. 2020;11:540835.
- 138. Pfattheicher S, Nielsen YA, Thielmann I. Prosocial behaviour and altruism: a review of concepts and definitions. Curr Opin Psycho. 2022;44:124–9.
- Yap YR, Ismail N. Factors of virtual influencer marketing influencing generation Y consumers' purchase intention in Malaysia. Int J Internet Mark Advertising. 2021;17(3/4):437–58.
- Durmaz A, Yuksel M, Aksoy NC, Kabadayi ET. Role of parasocial interaction and planned behaviour theory in consumption restriction intentions. Int J Internet Mark Advertising. 2024;20(1):83–107.
- 141. Thielmann I, Spadaro G, Balliet D. Personality and prosocial behaviour: a theoretical framework and meta-analysis. Psychol Bull. 2020;146(1):30–90.

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