

SOCIAL SUPPORT AS A MODERATOR OF THE RELATIONSHIP BETWEEN FINANCIAL THREAT AND LIFE SATISFACTION

*Rafaela Dias Matavelli*¹

*Saul Neves de Jesus*²

*Patrícia Pinto*³

*João Viseu*⁴

ABSTRACT

Financial crises often lead to an increase of pathological symptoms which have a negative impact on life satisfaction. This study analysed the moderating role of social support on the relationship between perceived financial threat and life satisfaction, during austerity periods. Structural equation modelling (SEM) using multiple-group analysis was used to assess the obtained results. The collected sample was composed by 901 Portuguese individuals, 603 females and 298 males, with an average age of 37 years old. Overall, results indicated a model in which perceived financial threat and social support were negatively and positively associated with life satisfaction, respectively. The moderating effect of social support revealed that in the group with the highest level of support there was a significant decrease in the association between perceived financial threat and life satisfaction, i.e., social support mitigated the negative effects of perceived financial threat on life satisfaction. The implications of these results are discussed.

Keywords: Perceived Financial Threat, Life Satisfaction, Social Support, Well-Being.

JEL Classification: G01, I31

1. INTRODUCTION

The 2008-2009 financial crisis led to a long period of global recession with negative consequences for societies and individuals. Through the analysis of the data of the Organization for Economic Co-operation and Development (OECD, 2011), the World Health Organization (WHO) noticed an increase, during 2009, in the incidence of mental health problems in the countries affected by the economic downturn. Also, during this period it was observed a growth in unemployment, mainly youth unemployment, and bankruptcy rates (Cabral, 2013; Viseu et al., 2018; Viseu et al., 2019). Considering this deterioration of social conditions, it is expected a decrease in living standards, which may lead to a decrease in life satisfaction (Greve, 2012). The study of Clench-Aas and Holte (2017), using data from 26 European countries, demonstrated that the economic crisis led to a reduction in life satisfaction in two ways, (1) in the short-term this reduction was more severe and (2) in the long-term this decline was more progressive.

One of the countries most affected by the crisis was Portugal. Since the beginning of this period this country, along with Greece, Cyprus, and Spain, has faced an adverse economic

¹ Research Centre for Tourism, Sustainability and Well-being (CinTurs), University of Algarve, Faro, Portugal (rdmpsiche@hotmail.com)

² Research Centre for Tourism, Sustainability and Well-being (CinTurs), University of Algarve, Faro, Portugal (snjesus@ualg.pt)

³ Research Centre for Tourism, Sustainability and Well-being (CinTurs), University of Algarve, Faro, Portugal (pvalle@ualg.pt)

⁴ Research Centre for Tourism, Sustainability and Well-being (CinTurs), University of Algarve, Faro, Portugal (jviseu@ualg.pt)

and social environment, which has led to a financial emergency situation. (Eurofound, 2012). To face the crisis the Portuguese government adopted a package of severe austerity measures proposed by the *Troika*. These measures not only undermined the Portuguese economy, but also had a negative impact on peoples' lives.

A report by Almeida and Xavier (2013) registered an increase in the incidence of anxiety and depression during the financial crisis. The worsening of these disorders led Portugal to reach the second position, among the countries of the European Union, in the prevalence of mental health problems (Almeida & Xavier, 2013). These data are corroborated by a set of empirical studies conducted in Portugal that showed that perceived financial threat, economic hardship, and decreased financial well-being were positively related to stress, anxiety, and depression (Viseu et al., 2018; Viseu et al., 2019). In these studies the role of perceived financial threat must be emphasized, since this economic stress variable established a stronger association with the psychological ill-being variables considered.

In the economic context, the recession caused, for example, an increase in the unemployment rate and a decrease in wages and investments in health and education (Pezirkianidis, Stalikas, Efstathiou, & Karakasidou, 2016). Even though there was an ephemeral economic recovery in Portugal in 2010, its' population lost more than 6% of their purchase power (GDP) between 2011 and 2013. Currently, the economy is growing less than 2% per year, which is below the average of the European Union and Portuguese citizens are still facing great challenges related to the economic slowdown, such as unemployment, labour instability, economic uncertainty, emigration of young individuals, and decrease of financial assets (Gaspar, Barros, Reis, & Santos, 2014). According to the preliminary report of the Portuguese Observatory of Health Systems (2014), the wealth produced in Portugal fell 5.7% in 2012, due to the austerity measures implemented and caused a setback on the ability to create wealth for 12 years, i.e., until 2024.

The outcomes of these measures are negatively associated with life satisfaction, optimism, and psychological well-being, and are positively related with low self-esteem, decreased life expectancy, and suicide (Deiktakis, Pezirkianidis, & Stalikas, 2014). As such, financial austerity periods enhance social inequality processes. Thus, one of the major concerns of the member states of the European Union were the consequences of the financial crisis on individuals' health (Graham & Felton, 2006). Several studies performed in European countries (Aslund, Larm, Starrin, & Nilsson, 2014; Leal, Viseu, Jesus, Paixão, & Greenglass, 2014; Fernandez et al., 2015; Fiksenbaum, Marjanovic, Greenglass, & Garcia-Santos, 2017; Viseu et al., 2018; Viseu et al., 2019) between economic stress variables (e.g., financial threat, economic hardship, and financial well-being) and negative psychological outcomes (e.g., stress, anxiety, depression, suicidal ideation, and confusion).

In 2011, according to the WHO, problems related to mental health were linked to high mortality rates, especially suicide, which represented one of the ten leading causes of death. Studies by Marjanovic, Greenglass, Fiksenbaum, and Bell (2013) demonstrated that during periods of economic precariousness there was a decrease in life satisfaction and an increase in problems related to mental health, indicating an association between income levels and well-being. A study realized by Leal, Viseu, Jesus, Paixão, & Greenglass (2014) confirmed the negative association between economic stressors (i.e., financial threat, economic hardship, and financial well-being) and mental health, in particular, symptoms of distress, anxiety, and depression. As such, topics related to periods of economic insecurity are of major importance taking into consideration the negative effects of these periods on individuals' health, for example, the increase of: (a) symptoms of depression and stress; (b) psychotropic drugs and alcohol consumption; and (c) the suicide rate (MacFadyen, MacFadyen, & Prince, 1996; Gili, García, & Roca, 2014).

This study focused on the subjects' inherent positive mechanisms, in order to enhance them during economic turmoil periods. Social support was used as a moderator variable, since this mechanism enables the development of coping strategies, (e.g., if a subject feels that he is understood, beloved, and cherished, he will feel strengthened to cope with difficult times) (Greenglass, 1993; Cutrona, 1996). Huffman, Culbertson, Wayment, and Irving (2015) conducted a research on financial hardship in which they observed that the aforementioned variable was associated with psychological suffering and low life satisfaction, financial constraints (causing individuals to experience a shortening of goods and services), which resulted in a reduction of well-being perceptions. The social support's conceptual model has four distinct functions: the first is related to our empathetic internal processes, e.g., understanding other individuals struggles; the second is related to trust, hope, and support that we provide to one and other; the third is related to affection, e.g., physical affection as a hug or a shoulder to lean on; the fourth and final function is related to the importance of the collective, e.g., volunteering, involvement with the community (Braithwaite, Waldron, & Finn, 1999).

Therefore, we can infer that social support has a defining role on an individuals' psychological equilibrium, enhancing their life satisfaction. For instance, when an individual is confronted with financial constraints and is feeling afraid and insecure, his or her/s social support network will help to lessen his or her/s negative feelings (Marjanovic et al., 2013). This study was conducted with the purpose of trying to understand how financial threat and social support are related with life satisfaction. For this end, we propose the following hypotheses:

Hypothesis 1: Financial threat is negatively associated with life satisfaction.

Hypothesis 2: Social support is positively related with life satisfaction.

This research used social support as a coping mechanism acting as a social facilitator to promote the individuals' well-being during difficult periods (Yoo et al., 2014). Generally, an individual that experiences the feeling of belonging to a group (e.g., peer groups, family, work colleagues, etc.) tend to feel more cherished, loved, appreciated, and safe in stressful events (Cobb, 1976). According to Roberts, Cox, Shannon, and Wells (1994), and Slevin and colleagues (1996), social support is linked to higher levels of psychological well-being and to a better quality of life. As a moderator, social support and its positive effects on life satisfaction have been studied for more than 30 years (Dunkel-Schetter, Folkman, & Lazarus, 1987; Dunkel-Schetter & Brooks, 2009), underlining its moderator effect on the decrease of negative outcomes for individuals, such as mental illness. Social support also aids individuals on the recovery from physiological stress (Trepte, Dienlin, & Reinecke, 2015; Priem & Solomon 2015); it can also mitigate anguish by helping an individual to reassess a difficult situation. A study by Jones and Wirtz, (2006) shown that social support reduces stress, feelings of uncertainty, and improves an individual's psychological health. Thus, we can then infer that social support can dampen the negative impacts of economic stress on an individuals' well-being.

In sum, social support is integrated into the study of positive psychology variables and acts as a moderator on the prevention of illness. It is also a multifaceted construct which involves human interaction, in which the subject perceives, receives, and interacts emotionally, sharing problems and building positive cognitions to overcome adversities (Dunkel-Schetter & Brooks, 2009). We can assume that social support is a psychological resource that individuals have access through their relationships with others and implies a modification and transformation process (Siqueira, 2008). Only a handful of studies refer to social support, during financial crises, as a softening "tool". Therefore, social support was

tested as a moderator on the relationship between financial threat and life satisfaction. As such, we propose the following hypothesis:

Hypothesis 3: Social support moderates the relationship between financial threat and life satisfaction.

2. METHODOLOGY

2.1 Participants

The recruitment of participants was performed through a contact database created from a previous research conducted at a Portuguese Research Centre, meaning that our participants were part of a convenience sample. An email was sent to the respondents with a direct link for the answering of the questionnaire and with an explanation of the objectives of our study. The participation criterion was that participants had to be over 18 years old. The participants were asked to read an informed consent; the anonymity of the answers was guaranteed to all participants and there was no kind of remuneration or incentive.

Our sample was composed of 901 participants, 603 females (66.9%) and 298 males (32.7%). Regarding the marital status, 466 (51.1%) of the respondents were married or living in a non-marital partnership and 435 (47.9%) were single, separated or divorced, and widow or widower. The participants were on average 37 years old ($SD = 12.86$).

2.2 Measures

Self-report questionnaires were used to gather information about the participants' life situation, containing information related to: economic stressors, financial threat (e.g., How much do you worry about it?); social-demographic data (e.g., How old are you? and What is your marital status?); psychological health (e.g., My life is, in almost everything, similar to what I would like it to be) and personality (e.g., How much advice or guidance do people give you that you find helpful?). The goal was to understand the individuals who participated in the research. Then, the questionnaire presented four sections with questions related to the variables we intend to investigate in this study. For the purpose of this study, the following instruments were applied:

Financial Threat Scale (FTS) was developed from previous researchers on health threats (Lee-Bagglely, DeLongis, Voorhoeave, & Greenglass, 2004). According to Marjanovic and colleagues (2013), FTS assesses feelings of uncertainty and perceived threat in relation to an individual's financial situation. This scale was composed of five items with a five-point Likert scale (1 - *Not at all*; 5 - *Extremely uncertain*). Individuals' scoring higher on the FTS are considered as demonstrating high levels of perceived financial threat. In our study this scale presented a Cronbach's Alpha of .90 ($M = 3.47$; $SD = .92$).

Satisfaction with Life Scale (SWLS-5) is a short five-item self-filling instrument with a five-point Likert scale (1 - *Strongly Agree*; 5 - *Strongly Disagree*) proposed by Diener, Emmons, and Larsen (1985). The result this scale vary between five, twenty-five, a lower value corresponds to a decreased life satisfaction, and a higher value indicates a greater life satisfaction. This instrument measures global cognitive judgments of satisfaction with one's life. Its Cronbach's Alpha value in our study was .86 ($M = 3.11$; $SD = .88$).

Emotional Support (IPES) was developed by Greenglass, Fiksenbaum, and Burke, (1996) and adapted from the work of Caplan, Cobb, French, Harrison, and Pinneau (1975). This scale was composed of nine items ordered in a four-point scale (1 - *Not at all*; 4 - *Very much*) and presented three dimensions of emotional support, (a) practical support (3 items); (b) social support (3 items); and (c) informational support (3 items). In our study, this scale presented a Cronbach's Alpha of .82 ($M = 2.83$; $SD = .38$).

2.3 Data Analysis Procedures

Data analysis began with a confirmatory factor analysis (CFA) to assess the reliability and validity of the three research constructs, financial threat, life satisfaction, and emotional support. The software AMOS 21.0 was used to estimate the model and the maximum likelihood estimation (MLE) method was applied. Then a structural equation modelling procedure was applied to test the research hypotheses 1 and 2. Finally, the moderating effect of social support was tested using a multiple group analysis. Some of the indicators were excluded from the data analysis, the ones that were not eliminated were part of the reliability indicators. For this model, the items with a Corrected Item-Total Correlation (CI-TC) lower than .60 were excluded from the data analysis, since they revealed a weak correlation with the constructs selected (Marôco, 2014).

4. RESULTS

4.1 Confirmatory Factor Analysis

CFA was performed with the three constructs that composed the model, financial threat, emotional support, and life satisfaction, with the aim of examining their reliability and validity. The model reported an adequate absolute overall fit. As expected, given the large sample size, the Chi-squared statistics was high and statistically significant ($\chi^2 = 164.553$; $p < .01$), meaning a significant dissimilarity between the estimated and actual model. However, the other absolute fit indexes reported good values. Values for GFI (.97), RMR (.03), and RMSEA (.03) suggested a very good absolute fit (GFI > .90; RMR < .08; RMSEA < .05), according to Byrne (2010). Regarding the incremental and parsimonious adjustment, results also evidenced a very good model fit ($\chi^2/df = 2.13 < 5$) (AGFI = .96; NFI = .97; GFI = .97; IFI = .98; TLI = 0.98; CFI = .98; all > .95).

Table 1 presents the most important results for the measurement model. Notice that to accomplish adequate results of individual reliability and convergent validity, four items of the emotional support scale had to be eliminated from the model. Individual reliability was observed because all standardized factor loadings were above .60, being significant at a .01 level (Anderson & Gerbing, 1982). Moreover, high values for the coefficients Cronbach's Alpha and Composite Reliability (CR) suggested a good construct reliability (Kline, 1998). All CRs were higher than .70 (CRs) and the Cronbach's Alphas were higher than .80 (*Financial threat*: $\alpha = .90$, CR = .89; *Emotional support*: $\alpha = .82$, CR = .83; *Life satisfaction*: $\alpha = .86$; CR = .87).

Table 1. Results for the Measurement Model

	Constructs and Items	Loading	t-value	α^1	CR ²	AVE ³
	<i>Financial Threat</i>		15.26	..90	..89	..62
FFT1	How uncertain do you feel?	.79				
FFT2	How much do you feel at risk?	.94				
FFT3	How much do you feel threatened?	.91				
FFT4	How much do you worry about it?	.65				
FFT5	How much do you think about it?	.60				
	<i>Emotional Support</i>		12.52	..82	..83	..50
EES1	How much are people helpful to you	.70				
EES2	How much useful information do people	.84				

EES3	How much useful feedback do you get	.63				
EES4	How much are people willing to listen to	.68				
EES5	How much do people boost your spirits	.66				
	<i>Life Satisfaction</i>		14.04	..86	..87	..59
LLS1	My life is, in almost everything, similar to what I would like it to be.	.82				
LLS2	My life conditions are very good.	.73				
LLS3	I am pleased with my life.	.85				
SLS4	Until now I have achieved the important things in life, which I would want.	.73				
SLS5	If I could restart my life, I wouldn't change anything.	.60				

Note. Cronbach's Alpha (α)¹ Composite Reliability (CR)² Average Variance Extracted (AVE)³.

Source: Own Elaboration

As for convergent validity, the first evidence is that each indicator loaded significantly on the corresponding latent variable. Moreover, the Average Variance Extracted (AVE) for each construct met the criterion of being at least .50 (*Financial threat*: .62; *Emotional support*:.50; *Life satisfaction*:.59). In turn, discriminant validity was assessed by comparing the AVE of each factor with the squared correlation between each construct and the other (Fornell & Larcker, 1981), in which discriminant validity exists when the square root of the AVE of each factor is greater than the correlation values. Table 2 shows that this criterion was fulfilled for the three constructs.

Table 2. Correlations among Latent Variables

Constructs	1	2	3
1. Financial Threat	.79		
2. Life Satisfaction	-.41**	.76*	
3. Emotional Support	-.12**	.31**	.70*

Note. *Squared root of the AVE; ** $p < .01$

Source: Own Elaboration

4.2 Constructs' Relationships

The signal and significance of each path coefficient were observed in order to test the first two research hypotheses (table 3, first column). Hypothesis 1 posits that financial threat is directly and negatively associated with lower levels of life satisfaction (i.e., the higher the financial threat, the smaller the perception one has regarding his life satisfaction). This hypothesis was tested and validated by the analysis of the direct effect of financial threat on life satisfaction. The estimated coefficient was negative and statistically significant ($\beta_1 = -.40, p < .01$). Hypothesis 2 proposed that emotional support would be positively related to life satisfaction (i.e., the greater the emotional support, the greater the perception that the individual has about his life satisfaction). This hypothesis was tested through the analysis of the direct effect of emotional support on life satisfaction. The estimated coefficient was positive and statistically significant ($\beta_2 = .30, p < .01$), meaning that H2 is validated.

4.3 Moderating Effect of Social Support

To test the moderating effect of social support on the relationship between financial threat and life satisfaction a multiple-group analysis was performed. According to hypothesis 3, social support would mitigate the negative influence of financial threat on life satisfaction. Before implementing this analysis, the sum of the indicators used to measure social support was computed and afterwards, we obtained the mean of the total scale. The sample was then divided into two subgroups based on their levels of social support (low *versus* high). Those with a mean score lower or equal to the total mean sample were assigned to the low group ($n = 442$). Those with a mean score higher than the total mean sample were assigned to the high group ($n = 459$). The key principle of a moderating effect in our study is that the effect of financial threat on life satisfaction will depend on the level of social support. The multiple group analysis compares the unrestricted model, i.e., the model without considering the moderation between financial threat and life satisfaction, against another model where the measurement and structural coefficients are constrained to be equal across the two groups.

The model's invariance was tested using the $\Delta\chi^2$ statistics (the model is invariant when $\Delta\chi^2$ reports $p > .05$). AMOS allows testing for invariance in the measurement and structural weights (Marôco, 2014). The null hypothesis is that the measurement weights are equal across groups was not rejected ($\Delta\chi^2 = 11.51; p = .17$). However, the null hypothesis that the structural weight is equal across groups was rejected ($\Delta\chi^2 = 4.50; p = .03$). This last finding shows that the path estimates are statistically different between groups. In other words, emotional support moderated the effect of financial threat on life satisfaction. The model with invariant measurement weights, but unequal structural weight, presented a satisfactory fit ($\chi^2/df = 2.21 < 5$) (AGFI = .94; NFI = .97; GFI = .97; IFI = .98; TLI = .98; CFI = .98; all $> .95$; RMR = .04 $< .08$; RMSEA = .03 $< .05$).

Table 3 shows that, either in the low emotional support group or in the high emotional support group, the relationship between financial threat and life satisfaction is negative and statistically significant ($p < .01$). However, this effect is weaker within those in the high group ($\beta = -.39$ against $\beta = -.47$ in the low group). So, the effect of the financial crisis on life satisfaction was mitigated on the group that presented higher levels of emotional support. Moreover, the critical ratio for the group difference in the path coefficient shows that the difference, of magnitude .08, is significant, meaning that the level of emotional support moderates the effect of financial threat on life satisfaction ($p < .05$). In sum, H3 is supported.

Table 3. Path Estimates in the Initial Model and in the Model with Emotional Support as Moderator

Initial Model	Model with Emotional Support as moderator			
	High group	Low group	Estimates' absolute difference	t-value
FT → LS: -.40**	FT → LS:	FT → LS:	.08	-2.12*
ES → LS: .30**	- .39**	-.47**		

Note. FT: Financial Threat, ES: Emotional Support, LS: Life Satisfaction. * $p < .05$.. $p < .01$

Source: Own Elaboration

5. CONCLUSION

The aim of this study was to assess the mechanisms that mitigate the impact of financial threat on the perceptions of life satisfaction of an individual. To this end, a positive psychology variable, social support, was used as a moderator. Social support was chosen as the moderator between financial threat and life satisfaction as, according to Hovey, Hurtado,

Morales, and Seligman (2014), the mechanism of emotional/social support is embedded in positive psychology through relationships, which cause human beings to evolve and create bonds between each other. This relationship strengthens and gives the Self-tools to overcome hardship times (e.g., financial threats caused by an economic crisis). It was expected that the psychological benefits of social support mitigated the perception of financial threat in relation to life satisfaction in the group of individuals with higher levels of emotional support, in detriment of the group with lower levels of emotional support.

The research hypotheses were supported. These results show that financial threat is negatively and strongly related to lower levels of life satisfaction (H1). On the other hand, social support is positively related to higher levels of life satisfaction (H2). Moreover, social support, as a moderating variable in the association between the financial threat and life satisfaction, mitigates the negative outcomes of that relationship (H3). The division of individuals into two groups showed that the group with higher levels of social support had a lower perception of financial threat in relation to life satisfaction, in detriment of the group with lower levels of social support. Our results are also in agreement with the existing literature on the negative relationship between financial threat and wellbeing (Paul & Moser, 2008; Marjanovic et al., 2013; Annink, Gorgievski, & Den Dulk, 2016). The results of this study underlined the benefits of using positive psychology mechanisms, as well as social support to mitigate the negative symptoms, such as stress, anxiety, and depression, that individuals have about their life satisfaction. Once these negative effects are mitigated, there is an improvement of subjective well-being, which contributes to a reduction of psychopathological discomfort.

From a theoretical perspective, countless authors have researched the benefits of social support as a mitigating variable in difficult situations, concluding that this variable has a protective effect on the individual's mental health and well-being (Bøen, Dalgard, & Bjertness, 2012; Huffman et al., 2015; Morelli, Lee, Arnn & Zaki, 2015). In particular, individuals who have to face with financial difficulties are more likely to overcome the strain by using social support as a buffering strategy than others who receive less social support (Whelan, 1993; Åslund, Larm, Starrin, & Nilsson, 2014). For example, it is supported that depression, which is arised from unemployment and underemployment, may become easier to cope with the help of receiving support from close ones (Crowe & Butterworth, 2016). As such, absence of any support can make it difficult to maintain well-being as much as enhancing life satisfaction.

One of the benefits shown by our results is that social support relieved the impact of financial threat on life satisfaction. The way in which we presented our results, through a multiple-group analysis, shows our ability to differentiate them in order to show that social support helped reducing symptoms of fear, anguish, and uncertainty related to personal finances and it increased life satisfaction in times of financial crisis. By the way of enriched life satisfaction, the likelihood of persisting life with hope in defiance of financial uncertainty becomes more available.

Positive psychology mechanisms act as protectors and allow the improvement of an individual's well-being. By using their own virtues, it amplifies them through the network of friends, family or group of peers and promotes encouragement to help the individual to cope with difficulties and hard times. Therefore, from the results of this study, in addition to the theoretical contributions, psychotherapeutic interventional programs can be created having positive psychology mechanisms as its main focus (e.g., social support).

This study is not free of limitations. The first one is that the sampling method was of convenience. In future studies, the sample should be more diversified and consider the financial situation of the participants. On the other hand, a comparative study could be performed in countries that face a similar economic situation, such as Spain. Future research

should also focus on other positive psychology indicators, such as: (a) optimism - authors like Bandeira, Natividade, and Giacomoni (2015) indicated that this variable strengthens the individuals' capacities and it is associated with higher levels of life satisfaction, acting as a moderator in adverse periods (people who are more optimistic are less likely to develop depression and anxiety); (b) spirituality - according to authors such as Melo, Sampaio, Souza, and Pinto (2015), a higher religious involvement is positively associated with indicators that contribute to psychological well-being, increasing happiness and life satisfaction; (c) coping – a study carried out by Compas, Connor-Smith, Saltzman, Thomsen, and Wadsworth (2001) suggest that, as a regulator of emotions and behaviour, adaptive coping can promote resilience in times of economic difficulties by improving the cognitive and behavioural responses to the stressors.

Positive psychology mechanisms can mitigate the effect of financial threat on life satisfaction. Understanding these variables can also help providing intervention programs, in times of crisis, in order to increase populations' well-being and, consequently, help to reduce psychopathological problems. Despite these limitations, it is worth mentioning that this study provides further evidence of the psychological benefits and the importance of social support as a moderator on the relationship between financial threat and life satisfaction. In the future, contingency plans for the affected populations may be developed as they will contribute to the strengthening of personal mechanisms that will lead to increased general well-being and to a decrease of psychopathological problems, especially stress, anxiety, depression, and suicide.

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