

Positive Relationships Questionnaire (PRQ): A Pilot Study

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How to cite this paper: Mitskidou, P., Mertika, A., Pezirkianidis, C., & Stalikas, A. (2021). Positive Relationships Questionnaire (PRQ): A Pilot Study. *Psychology, 12,* 1039-1057. https://doi.org/10.4236/psych.2021.127062

Received: May 29, 2021 **Accepted:** July 9, 2021 **Published:** July 12, 2021

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Abstract

"Positive relationship" is a term frequently used, as synonymous to close, meaningful, supportive or important relationships. However, the characteristics of a relationship characterized as positive have not yet been fully examined and described. This study aims to investigate the psychometric properties of a new instrument for measuring the characteristics of positive relationships. The Positive Relationships Questionnaire (PRQ) is a 35-item self-report instrument that evaluates the quality of positive relationships as well as the conditions that people need to offer and/or provide to others in order to have positive relationships. Its 35 items were drawn from the findings of previous qualitative research and are grouped into three broad categories: positive emotions, active contribution and readiness to support. A total of 331 adults, aged from 17 to 57 years old completed the PRQ and the PERMA Profiler. The findings showed that PRQ has good internal consistency and its factor structure includes four factors: self-improvement, practical support, emotional support, and shared enjoyment. All factors were found to have high correlations with the two domains of PERMA, positive emotions and relationships, and low to moderate correlations with engagement, meaning, and accomplishment. These results provide initial evidence of satisfactory convergent and divergent validity. PRQ is a useful instrument. It provides a quantitative evaluation of the quality and content of positive relationships and can be used broadly as a wellbeing index.

Keywords

Positive Relationships, Questionnaire, Well-Being, PERMA, Pilot Study

1. Introduction

Relationships are an important source of life satisfaction and emotional well-being.

Likewise, and almost without exception, theories of psychological well-being include positive relationships with others as a core element of mental health and well-being.

Most theories view satisfying relationships as a determinant of well-being, while some of them go so far as to posit "positive relations with others" as an intrinsic component of psychological well-being and not just as a cause of it (Keyes, 2002; Ryff, 2014). In the theoretical model of well-being called PERMA, Martin Seligman (2011) focuses on positive relationships as an essential connective piece of the puzzle of well-being, which also is facilitated by experiencing positive emotions, engagement, sense of meaning and accomplishment. In her book, *Positive Relationships*, Roffey (2012) describes relationships as the heart of a person's life and explains that we rely on others for care, love, laughter, and a shoulder. Seligman (2011) describes how relationships can turn from positive to negative and how important it is to identify, engage in and nurture the true positive relationships that can enhance well-being. Roffey (2012) pinpoints the need to understand the nature of a positive relationship in order to build them so as to feel a sense of value for ourselves and others.

In recent years, there is also an increase in empirical studies that examine the role of deep and meaningful relationships to every aspect of human life, from mental health and well-being (e.g., Chandoevwit & Thampanishvong, 2016; Chu et al., 2010; Keyes, 2005, 2010; Krause & Hayward, 2015; Lyubomirsky et al., 2005; Ryff & Singer, 2008; Seligman, 2002; Tan et al., 2017; Vaillant, 2012) to morbidity and mortality (e.g., Holt-Lunstad & Smith, 2012; Kawachi & Berkman, 2001; Lakey & Cronin, 2008; Uchino, 2009; Vaillant, 2012). Most of them show that people, who have more supportive and rewarding relationships have better mental and physical health and higher levels of subjective well-being.

In fact, the integration of individuals into support networks provides them resources needed to successfully cope with depression, anxiety, loneliness, obesity, alcohol abuse, smoking and many other physical and mental health difficulties. To add more, having a positive network of people has another significant impact on well-being. A person's chance of being happy increases by 15%, if he is related to a happy person, and by 10% if he is related to a person, who is related to a happy person. Therefore, studies around social networks argue that happiness is transmitted through positive relationships (Fowler & Christakis, 2008).

The positive impact of relationships has been examined in all stages of the life span. Positive friendships contribute to better adaptation, development and wellbeing during childhood (Kornieko & Santos, 2013; Laursen et al., 2007), while one positive relationship is capable to diminish the negative consequences of a negative relationship and provoke a sense of balance among teenagers (Wang & Eccles, 2012). Teenagers, who lack positive relationships, are less likely to receive emotional support during stress periods, which makes them more vulnerable to the negative consequences of conflicts. Emotional support, in general, provides teenagers with the necessary resources to confront and overcome stress and diminish the probability of dangerous behaviours (Telzer et al., 2015). The quality of relationships at the age seems to increase even if they are chatting (Best et al., 2014). On-line friends have also a positive impact on well-being of teenagers, which becomes bigger as the number of on-line friends increases (Wang et al., 2014). The existence and number of on-line friends influence the perceptions of teenagers about social support, their status and sense of being a member of a group, which consequently impact their wellbeing.

During adulthood, a positive relationship depends on the balance between autonomy and intimacy (Merz & Huxhold, 2010). Support may have a different impact on adults regarding the person, who provides it. There has been empirical evidence that high levels of practical support may have a negative impact on people's wellbeing as it is related to a loss of autonomy, an increase of needs and a sense of dependence, while emotional support is positively related to well-being (Reinhardt et al., 2006). Those, who perceive their relationships as positive and of high-quality tend to feel more intimacy and closeness and succeed to keep a balance among their autonomy and their interdependence.

Adult friendship is one of the most valuable interpersonal relationships (Demir, 2015), which contributes in various ways to individual's well-being (Demir & Weitekamp, 2007; Diener & Biswas-Diener, 2008; Pezirkianidis, 2020) and significantly fulfils the fundamental human need for social interaction (Lyubomirsky, 2008). The friendship components that have been found to correlate with higher levels of well-being are stimulating companionship, support, reliable alliance, and self-validation (Demir & Weitekamp, 2007; Pezirkianidis, 2020). Also, marriage, as the "ultimate" positive relationship, seems to significantly impact well-being through the life span. It seems that the ability of spouses to communicate effectively and to show empathy and emotional support to each other works beneficially for their well-being (Verhofstadt et al., 2008). In a longitudinal survey, where 24,000 subjects were assessed for a period of 15 years, married were significantly happier during the whole period of their marriage, whether they were at their first or second marriage, in comparison with singles, divorced or widowers (Lucas et al., 2003).

At last, among elderly people, positive friendships are positively related to life satisfaction and negatively related to depressive symptoms, especially among women (Antonucci, 2012; Park & Roh, 2013). In particular, research shows that older people with positive relationships report higher levels of well-being, since their ability to regulate their negative emotions regarding the loss of internal and external resources is enhanced (Urry & Gross, 2010). In addition, positive relationships are positively associated with maintaining the physical health of the elderly (Lachman & Agrigoroaei, 2010). For example, they are negatively associated with the development of senile dementia and Alzheimer's disease (Fratiglioni et al., 2004), as well as high levels of cognitive impairment (Fu et al., 2018). In other words, positive relationships are a determinant of the well-being of the elderly (Zielińska-Wieczkowska et al., 2012).

Most of the above studies are focused on the importance of supportive rela-

tionships in the context of stress and adversity giving emphasis on how relationships act protectively for individuals and foster psychological resilience (Pezirkianidis & Stalikas, 2020). Nevertheless, there is also evidence that relationships may have an impact in well-being even in the absence of specific stressors (Lakey & Orehek, 2011). Furthermore, Feeney and Collins (2015) support that relationships can protect and enhance well-being by enabling individuals to fully participate in life's opportunities for growth and development in the absence of adversity and enhance their efforts to learn, grow, explore, achieve goals, cultivate new talents, and find purpose and meaning.

Despite the frequent use of the term "positive relationships", little is known about the exact meaning of it. The term "positive" is usually used as a synonymous to close, meaningful, supportive or important. At the same time, it is used for relationships with others that contribute to individual's well-being. Social scientists often describe close relationships as those with whom one discusses important issues or spend his free time with. Half of them are friends while the others are spouses, lovers, parents, brothers and sisters but also colleagues, neighbours, coaches and counsellors. However, the qualities and content of a relationship characterized as positive have not yet been fully examined and described (Mertika et al., 2020).

A qualitative study has found through thematic analysis that positive relationships are characterized by three components: self-growth, emotional support, and readiness to support (Mertika et al., 2018; Mertika et al., under preparation). The researchers found that positive relationships enhance individual's self-growth by assuming other's responsibility, learning through modelling, having shared values, confronting fears, and discovering personal talents and strengths. Secondly, they found that positive relationships provide high levels of emotional support through stimulating companionship, experiencing interpersonal positive emotions and gratitude, and putting faith and motivating to the other. Thirdly, it was found that positive relationships are characterized by reciprocal readiness to support the other in the future. This means that both members of the relationships feel safe and secure and they perceive that the other will be available to provide support, whenever they need it. Also, Mertika and colleagues (2018, under preparation) have identified two processes within positive relationships. The first concerns a mutual and equal communication process that enhances acceptance of the other and the second concerns a change over time in proximity and autonomy (positive relationships combine high levels of both).

The aim of this article is to develop and pilot validate the Positive Relationships Questionnaire (PRQ), a novel questionnaire that has been specifically constructed to measure the qualities and content of positive relationships. The construction of this questionnaire will be a first step in the understanding of the term "positive relationship". Also, as mentioned above, several studies and wellbeing theories talk about positive relationships, without defining them, describing their qualities and functions or suggest a way to measure them. This study will make the first attempt to address these gaps.

2. Method

2.1. Sample

The sample of the present study consisted of 331 adults, 228 women (68.8%) and 103 men (31.3%), aging from 17 to 67 years old. The mean age of the total sample was 37.15 years (SD = 12.38). Most of the participants were unmarried (48%), without children (59.8%) and employed (66.46%). Regarding their educational level, 19.63% were high school graduates, 10.27% university students, 38.67% university graduates and the others had different educational status.

2.2. Measures

The Positive Relationships Questionnaire (PRQ)

The development of the PRQ was based on the results of a qualitative study (Mertika et al., 2018). The aim of that study was to explore in-depth the specific characteristics of positive relationships and suggest an operational definition with exploratory interviews.

The PRQ includes 35 self-report items. The participants are asked to bring to their minds the important relationships they have in their lives, regardless of the context in which they were formed e.g. friendships, work relationships and/or family relationships. The first 12 items measure the characteristics of the relationship. The participants report, if they feel specific emotions and support in their lives, using a 10-point Likert-type scale (1-not at al/never to 10-absolutely/always). The following 20 items measure the characteristics of the persons involved and the participants report, if they are related with persons that make them feel positive emotions, are supportive and contribute to the relationship using the same 10-point Likert-type scale. The last three items ask participants to report 1) the number of the relationships they have in their lives with either one or some of the above characteristics at a high level, 2) if they have a relationship that contributes to their happiness and 3) if so, how many relationships of this quality (i.e., contributing to their happiness) they currently have.

PERMA Profiler (Butler & Kern, 2016; Greek version: Pezirkianidis et al., 2019).

The PERMA Profiler is a 23-item multidimensional questionnaire, which measures the five components of wellbeing based on Seligman's (2011) theory of flourishing: positive emotions, engagement, positive relationships, meaning in life, and accomplishments. Each component is measured by three items and eight items are fillers assessing overall wellbeing (single item), negative emotions (three items), loneliness (single item) and physical health (three items). An overall wellbeing score can be also computed by summing the items of the five components of wellbeing and the overall wellbeing single item. Each item is scored on an 11-point Likert-type scale anchored by "0 = never" to "10 = always", "0 = not at all" to "10 = completely", or "0 = terrible" to "10 = excellent"

based on the item content. The Greek version of PERMA Profiler, based on a sample of 3.696 participants demonstrated good concurrent, convergent and discriminant validity, acceptable internal consistency and test-retest reliability for the overall wellbeing items and for almost all the domains. It is a reliable and valid measurement of wellbeing as a total and of its main components.

2.3. Procedure

All the measures were administrated in an electronic Greek version of PRQ using google forms. Research data was acquired 1) with the assistance of students of the Panteion University of Social and Political Sciences, 2) from social media and 3) a webpage that was created specifically for the study of positive relationships. The university students got trained to recruit adults of their social milieu without providing them any external incentives or compensation. The participants took part in the study following a piece of brief information about study aims and anonymity of their responses and they provided informed consent.

3. Results

3.1. Item Analysis

We estimated means and standard deviations for the first 32 items of the scale in order to examine item quality and locate possibly dysfunctional items. The item analysis did not reveal any item that if deleted it would contribute significantly to the reliability of the scale. The mean of each item ranged from 7 to 8.6 (*SD* ranges from 1.6 to 2.3), which is high for an anchored 10-point scale but quite acceptable and expected as the scale measures qualities and characteristics of positive relationships, which are supposed to be beyond the mean so as the relationship to be a positive one (see **Table 1**). We also carried out a correlation analysis between all scale items. Item analysis revealed Pearson r correlations between the 32 items that ranged from .32 to .84 (see **Table 2**).

3.2. Factor Analysis

In order to examine the factorial structure of the scale we proceeded to Principal Components Analysis. Four factors with an eigenvalue over 1 were extracted using Principal Components Analysis with Varimax Raw Rotation. According to the analysis and the Kaiser criterion (eigenvalues greater than 1) four factors were extracted with loadings higher than .50. These four factors explained the 75.6% of the total variance and were named as follows: Self Improvement (19.7%), Practical Support (11.7%), Emotional Support (28.1%) and Shared Enjoyment (16.1%). Table 3 shows the results of Principal Components Analysis.

The first factor consists of eight self-improvement items, the second of three practical support items, the third of fifteen emotional support items and the fourth of six shared enjoyment items. Five items had double loadings. The item 16, "*I have relationships with people that make me happy*" loaded both in Self Improvement and Emotional Support, the item 18, "*I have relationships with people, who make me laugh*" to Self-Improvement and Shared Enjoyment and items

23, 27 and 29, "*I have relationships with people to whom I offer practical support*", "*I have relationships with people I understand very well*", and, "*I have relationships with people that when we argue I know we will find a solution*" all loaded to Emotional Support and Shared Enjoyment. We put these items where they loaded most taking also into consideration the meaning of the item (see Table 3).

Table 1. Ite	m analysis	Means and SD	per item	of PRO.
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No	Item (<i>n</i> = 331)	Mean	SD
1	I have relationships that offer me support.	7.25	2.39
2	I have relationships that offer me recognition.	7.11	2.23
3	I have relationships from which I receive practical support.	7.21	2.22
4	I have relationships from which I receive acceptance.	7.97	1.82
5	I have relationships where I feel trust.	8.15	2.06
6	I have relationships where I feel love.	8.46	1.81
7	I have relationships for which I feel grateful.	8.18	1.98
8	I have relationships where I have a great a time.	8.24	1.75
9	I have relationships where there is great communication.	7.85	1.86
10	I have relationships where I can find unconditional help/support.	7.85	2.08
11	I have relationships where I laugh.	8.08	1.89
12	I have relationships where I can have general philosophical discussions.	7.53	2.15
13	I have relationships with people that inspire me.	7.25	1.98
14	I have relationships with people that teach me new things.	7.37	1.94
15	I have relationships with people that help me to become a better person.	7.57	2.01
16	I have relationships with people that make me happy.	7.85	2.06
17	I have relationships with people that love me.	8.36	1.79
18	I have relationships with people that make me laugh.	8.01	1.87
19	I have relationships with people that support me in difficult times.	7.80	2.01
20	I have relationships with people that I admire.	7.41	2.18
21	I have relationships with people that trust me.	8.33	1.65
22	I have relationships with people that I love.	8.64	1.68
23	I have relationships with people that make me have a good time.	8.08	1.82
24	I have relationships with people to whom I am grateful.	8.02	1.91
25	I have relationships with people that admire me.	7.28	1.92
26	I have relationships with people I understand very well.	8.01	1.72
27	I have relationships with people that I know very well.	8.09	1.76
28	I have relationships with people that when we argue I know we will find a solution.	7.84	1.96
29	I have relationships with people that I will make them laugh.	8.03	1.86
30	I have relationships with people that are grateful to me.	7.05	2.04
31	I have relationships with people that offer me valuable advice and guidance.	7.73	1.92
32	I have relationships with people that I trust.	8.15	1.89

Table 2. PRQ inter-item correlations (*n* = 331).

Item Label	1	2	3	4	5	6	7	8	9	10	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														
2	.83	1																													
3	.74	.71	1																												
4	.52	.60	.59	1																											
5	.52	.50	.63	.75	1																										
6	.56	.53	.64	.72	.84	1																									
7	.45	.48	.64	.66	.74	.77	1																								
8	.42	.45	.53	.62	.64	.68	.66	1																							
9	.47	.54	.58	.61	.71	.72	.69	.74																							
10	.44	.47	.56	.65	.75	.77	.69	.63	.70	1																					
11	.42	.40	.48	.55	.56	.57	.57	.77	.66	.54	1																				
12	.32	.35	.43	.51	.49	.53	.55	.60	.63	.56	.59	1																			
13	.42	.46	.55	.57	.63	.66	.68	.65	.72	.66	.62	.71	1																		
14	.38	.41	.53	.46	.53	.54	.60	.59	.61	.56	.57	.57	.77	1																	
15	.38	.41	.52	.53	.60	.60	.65	.66	.66	.62	.63	.62	.78	.76	1																
16	.50	.48	.60	.67	.73	.75	.74	.76	.75	.69	.70	.66	.78	.66	.74	1															
17	.50	.48	.62	.71	.83	.88	.77	.69	.74	.75	.60	.56	.68	.55	.68	.81	1														
18	.35	.37	.45	.51	.55	.54	.54	.72	.63	.50	.87	.59	.63	.60	.62	.70	.59	1													
19	.48	.45	.64	.66	.80	.77	.74	.68	.72	.72	.57	.57	.66	.57	.61	.76	.80	.58	1												
20	.37	.35	.53	.53	.61	.64	.66	.63	.63	.61	.60	.64	.79	.65	.79	.76	.69	.61	.69	1											
21	.40	.44	.47	.68	.69	.68	.60	.64	.59	.64	.60	.51	.59	.52	.58	.68	.73	.57	.69	.63	1										
22	.46	.46	.57	.64	.74	.81	.71	.68	.72	.73	.59	.57	.62	.49	.58	.74	.85	.56	.71	.65	.71	1									
23	.30	.37	.46	.50	.55	.59	.55	.58	.53	.58	.53	.43	.49	.47	.53	.53	.59	.50	.52	.52	.66	.65	1								
24	.47	.46	.55	.63	.62	.65	.62	.83	.71	.57	.83	.60	.66	.64	.68	.77	.70	.78	.65	.68	.68	.67	.62	1							
25	.47	.48	.61	.67	.75	.77	.82	.67	.71	.71	.61	.61	.68	.61	.66	.77	.79	.59	.75	.71	.64	.74	.62	.67	1						
26	.35	.44	.44	.59	.58	.60	.55	.51	.58	.57	.57	.55	.64	.51	.58	.63	.64	.55	.58	.62	.66	.61	.49	.62	.63	1					
27	.41	.42	.51	.66	.68	.68	.63	.69	.68	.64	.63	.58	.61	.53	.59	.72	.70	.62	.69	.66	.71	.73	.61	.73	.69	.65	1				
28	.39	.40	.50	.60	.69	.68	.62	.60	.63	.60	.57	.53	.56	.46	.52	.65	.74	.53	.67	.60	.69	.76	.60	.66	.69	.66	.82	1			
29	.35	.40	.44	.50	.58	.59	.52	.57	.54	.57	.56	.43	.53	.44	.53	.55	.57	.53	.56	.56	.61	.61	.64	.62	.60	.54	.64	.63	1		
30	.33	.33	.39	.49	.48	.50	.51	.59	.51	.47	.75	.46	.51	.49	.54	.56	.55	.68	.49	.52	.55	.52	.60	.68	.58	.53	.62	.60	.69	1	
31	.36	.44	.49	.59	.62	.64	.60	.55	.62	.62	.55	.57	.64	.59	.60	.67	.65	.55	.61	.61	.66	.64	.63	.64	.68	.78	.72	.67	.62	.56	1
32	.36	.35	.49	.53	.63	.66	.69	.62	.66	.60	.61	.60	.71	.68	.72	.72	.70	.59	.68	.73	.59	.65	.52	.70	.73	.56	.68	.65	.56	.59	.62

Note. Every correlation is significant at p-value < .001. n = sample size, p-value = value of statistical significance.

Table 3. PRQ item loadings per factor.

Factor Loadings A/A(Varimax raw extraction: Principal components (Marked loadings are >.500000)	Factor 1 (Self- Improvement)	Factor 2 (Practical Support)	Factor 3 (Emotional Support)	Factor 4 (Shared Enjoyment)
1 I have relationships that offer me support.	<u>_</u>	.89	<i>c</i>	
2 I have relationships that offer me recognition.		.87		
3 I have relationships from which I receive practical support.		.73		
4 I have relationships from which I receive acceptance.			.59	
5 I have relationships where I feel trust.			.74	
6 I have relationships where I feel love.			.73	
7 I have relationships for which I feel grateful.			.62	
8 I have relationships where I have a great a time.				.52
9 I have relationships where there is great communication.	.51			
10 I have relationships where I can find unconditional help/support.			.68	
11 I have relationships where I laugh.				.73
12 I have relationships where I can have general philosophical discussions.	.65			
13 I have relationships with people that inspire me.	.76			
14 I have relationships with people that teach me new things.	.75			
15 I have relationships with people that help me to become a better person.	.74			
16 I have relationships with people that make me happy.	.61			
17 I have relationships with people that love me.			.74	
18 I have relationships with people that make me laugh.				.68
19 I have relationships with people that support me in difficult times.			.66	
20 I have relationships with people that I admire.	.68			
21 I have relationships with people that trust me.			.66	
22 I have relationships with people that I love.			.75	
23 I have relationships with people that make me have a good time.				.65
24 I have relationships with people to whom I am grateful.			.64	
25 I have relationships with people that admire me.			.53	
26 I have relationships with people I understand very well.			.63	
27 I have relationships with people that I know very well.			.71	
28 I have relationships with people that when we argue I know we will find a solution.				.60
29 I have relationships with people that I will make them laugh.				.78
30 I have relationships with people that are grateful to me.			.58	
31 I have relationships with people that offer me valuable advice and guidance.	.61			
32 I have relationships with people that I trust.			.74	
Eigenvalues	20.60972	1.76624	1.36497	1.20144
Explained Variance	6.507751	3.850526	9.271672	5.312425
Proportion of Total Variance	.197205	.116683	.280960	.160983

3.3. Reliability

We estimated the scale reliability using Cronbach alpha index. According to the analysis, the Cronbach Alpha for the scale was a = .93, for the factor of Self-Improvement was a = .94, for the factor of Practical Support was a = .90, for the factor of Emotional Support was a = .96, and for the factor of Shared Enjoyment the Cronbach Alpha was a = .93. Further item analysis exploring the possibility to strengthen the scale reliability if any of the items was deleted gave negative results.

3.4. Concurrent, Convergent and Discriminant Validity Analysis

In order to further examine the validity of the scale we used as criteria the PERMA Profiler factors. We hypothesized that the presence of positive relationships in life would correlate positively with the seven subscales of the PERMA profiler: positive emotions, engagement, relationships, meaning, accomplishment, physical health and happiness. We also hypothesized that they would correlate negatively with the subscales of negative emotions and loneliness. As hypothesized, PRQ showed 1) high positive correlation with Positive Emotions (r = .60, p < .001, n = 331) and Relationships (r = .60, p < .001, n = 331) indicating adequate convergent and concurrent validity, 2) moderate positive correlations with Engagement (r = .51, p < .001, n = 331), Meaning (r = .48, p < .001, n = 331), Accomplishment (r = .41, p < .001, n = 331), Physical Health (r = .36, p < .001, n = 331) and Happiness (r = .55, p < .001, n = 331) indicating adequate convergent validity, and 3) low negative correlation with Negative Emotions (r = .11, p = .032, n = 331) and Loneliness (r = .22, p < .001, n = 331) indicating adequate discriminant validity.

We also examined the correlation of each factor with the subscales of the PERMA Profiler (see **Table 4**). Self-Improvement factor showed high positive correlation with Positive Emotions (r = .61, p < .001, n = 331), Engagement (r = .54, p < .001, n = 331), Relationships (r = .76, p < .001, n = 331) and Happiness (r = .55, p < .001, n = 331) and moderate positive correlation with Meaning (r = .49, p < .001, n = 331), Accomplishment (r = .43, p < .001, n = 331), and Physical Health (r = .31, p < .001, n = 331).

Practical Support showed high positive correlation with Positive Emotions (r = .41, p < .001, n = 331) and Relationships (r = .55, p < .001, n = 331), moderate positive correlation with Engagement (r = .32, p < .001, n = 331), Meaning (r = .33, p < .001, n = 331) and Happiness (r = .39, p < .001, n = 331) and low positive correlation with Accomplishment (r = .25, p < .001, n = 331) and Physical Health (r = .28, p < .001, n = 331).

Emotional Support showed high positive correlation with Positive Emotions (r = .61, p < .001, n = 331), Relationships (r = .80, p < .001, n = 331) and Happiness (r = .53, p < .001, n = 331), moderate positive correlation with Engagement (r = .46, p < .001, n = 331), Meaning (r = .47, p < .001, n = 331), Accomplishment (r = .40, p < .001, n = 331) and Physical Health (r = .36, p < .001, n = 331).

	Self Improvement	Practical Support	Emotional Support	Shared Enjoyment	PRQ Total Score
Positive Emotions	.61**	.41**	.56**	.54**	.60**
Engagement	.54**	.32**	.46**	.47**	.51**
Relationships	.76**	.55**	.80**	.70**	.81**
Meaning	.49**	.33**	.47**	.39**	.48**
Accomplishment	.43**	.25**	.40**	.36**	.42**
Negative Emotions	13*	03	12*	10	12*
Physical Health	.31**	.28**	.36**	.33**	.36**
Loneliness	24**	09	19**	26**	22**
Happiness	.55**	.39**	.53**	.49**	.56**

Table 4. Correlations between PRQ factors and PERMA factors (*n* = 331).

Note. **p* < .05, ***p* < .001.

Finally, Shared Enjoyment showed high positive correlation with Positive Emotions (r = .54, p < .001, n = 331) and Relationships (r = .70, p < .001, n = 331), moderate positive correlation with Engagement (r = .47, p < .001, n = 331), Happiness (r = .49, p < .001, n = 331), Meaning (r = .39, p < .001, n = 331), Accomplishment (r = .36, p < .001, n = 331) and Physical Health (r = .33, p < .001, n = 331).

All the four factors showed low negative correlation with negative emotions and loneliness.

3.5. Analysis of the Last Three Items

The last three items of the PRQ were analyzed separately due to their different form, they are rather open-ended questions and are not scored on a Likert scale. The participants reported that they have a mean of four relationships in their lives with either one of some of the characteristics described in the items 1 to 32 of PRQ (M = 4.23, SD = 3.35). Most of the participants (97.1%) reported that they have a relationship that contributes to their happiness and similarly to the previous question they reported a mean of four relationships that contribute overall to their happiness (M = 4.23, SD = 3.35).

Finally, in order to examine the number of relationships required in one's life to have a high score in the PRQ, which indicates good quality and richness of positive relationships, we performed ROC analysis. Using the individual scores on the four factor scales and the total score, participants were divided into two groups, those who scored higher than 60 (i.e. MEAN + 1 SD) and those who scored lower than that. It was assumed that scores higher than MEAN + 1 SD indicate a higher state of "Emotional Support", "Practical Support", "Self Improvement", "Shared Enjoyment" and overall higher "Total" positive relationships. Using this classification as a "golden standard" we performed ROC analysis in order to assess the number of relationships required to reach such a state and be happy. Our results indicated that at least three relationships were required for emotional support (AUC = .657, z = 3.370), four relationships were required for practical support (AUC = .629, z = 3.167), and five relationships were required for shared enjoyment (AUC = .668, z = 3.370) and self improvement (AUC = .599, z = 2.273). A total of at least two positive relationships (AUC = .634, z = 2.934) were required in order for the participants in our sample to have high ratings of strong positive relationships. However, although all the above results were statistically significant the AUC values ranged between .6 - .7, which is considered moderate.

4. Discussion

The purpose of the present study was the development of a novel questionnaire specifically constructed to measure the qualities and content of positive relationships. The initial findings are promising since the new instrument has robust psychometric properties. In terms of its reliability, overall and factorial reliability are satisfactory and item analysis and item inter-correlations indicate that all items contribute significantly to the reliability of the scale. Admittedly, the scale yielded consistently high ratings resulting in positively skewed results. It is important though to note that high ratings are both acceptable and expected because the scale measures qualities and characteristics that ideally exist in surplus.

The factorial structure of the PRQ echoes the results of previous studies on social relationships and their usefulness. The PRQ factors reflect two basic functions of positive relationships that have been described in the existing literature (Feeney & Collins, 2015). More specifically, our questionnaire includes two factors (Emotional and Practical support) that describe social support usually needed during times of adversity and two factors (Self-Improvement and Shared Enjoyment) that foster self-growth and are probably most useful during more quiet and serene periods of a person's life. According to previous findings, social relationships provide four types of social support, which depict PRQ factors. First of all, social relationships provide emotional support to individuals. In other words, they provide sympathy, concern, love, trust, acceptance, intimacy, and affection. Emotional support is also called "support of self-esteem" (Fehr & Harasymchuk, 2018; Li et al., 2014). The second type of support is called practical support and concerns the provision of financial assistance, material goods or services to help the other, when needed (Nguyen et al., 2016). Thirdly, social relationships provide informational support, which is about giving advice, guidance, suggestions or useful information to a person in order to solve a problem (Fehr & Harasymchuk, 2018; Wood et al., 2015). Finally, relationships with others provide companion support. This form of support refers to the presence and companionship in joint social activities or in individual activities, where the other person is present, and enhances the sense of belonging (Yang et al., 2014).

Overall, the PRQ's stronger factor is the one that addresses emotional support. The "Emotional Support" factor has 16-items, more than any of the other three factors. The observed imbalance is though fully understood and explained considering the predominant view that relationships have stress-alleviating qualities. Merz and Huxhold (2010) suggest that relationships promote well-being by providing intimacy. The term intimacy describes a state in which the individuals, who are in a social relationship enjoy and share feelings of safety, trust, and acceptance; oftentimes at the expense of personal independence (Merz & Huxhold, 2010). The same finding is supported by the results of a previous qualitative study, where authors highlighted a multitude of emotional states and feelings that are experienced in a relationship that is considered positive and meaningful by the participants (Mertika et al., 2018, under preparation).

In terms of PRQ's convergent validity, the results further indicate that the PRQ measured the quality of positive relationships and this measurement was indeed highly correlated with current ratings of well-being components measured by the PERMA Profiler. Previous literature support this finding, since perceived social support from positive relationships has been found to predict well-being levels more than any other variable (Chandoevwit & Thampanishvong, 2016; Chu et al., 2010; Demir, 2010; Krause & Hayward, 2015; Tan et al., 2017).

More specifically, the findings of the present study indicate that the quality of positive relationships positively correlates with the experiencing of positive emotions, a sense of meaning in life, engagement in everyday activities, accomplishments, and physical health. The aforementioned findings are in accordance with current literature. Feeney and Collins (2015) support that relationships can protect and enhance well-being by enabling individuals to fully participate in life's opportunities for growth and development in the absence of adversity and enhance their efforts to learn, grow, explore, achieve goals, cultivate new talents, and find purpose and meaning. Also, the findings of previous studies support that daily experiences of positive emotions increase social support levels, the sense of connection with others, trust, and relationship quality (Dunn & Schweitzer, 2005; Fredrickson et al., 2008; Gable et al., 2006; Waugh & Fredrickson, 2006). Moreover, previous findings support that 1) the sense of belonging in relationships with others leads to a life with a strong sense of meaning (Sørensen et al., 2019; Zhang et al., 2019), 2) social support correlates with high levels of engagement to everyday activities in society and academic settings (Heck & Fowler, 2007; Lascano, 2016), 3) positive relationships with others lead to achieving goals in school, work and personal life (Bronkema & Bowman, 2017; Koestner et al., 2012; Liu et al., 2013; Silvy et al, 2009), and 4) positive relationships predict longevity (Holt-Lunstad & Smith, 2012).

Furthermore, PRQ demonstrated adequate levels of concurrent validity, based on its high positive correlation with other existing instruments of measuring positive relationships (namely PERMA Profiler). In terms of discriminant validity, the PRQ exhibited negative correlations with loneliness and negative emotions as it was expected, since social relationships characterized by support have been found by the existing literature to diminish the experiencing of negative emotions, undo their unpleasant effects and reduce loneliness effects on depression and wellbeing (Fredrickson et al., 2008; Gariepy et al., 2016; Liu et al., 2016; Pierce & Quiroz, 2019). It is important, here, to reiterate that existing literature underscores the fact that social relationships act as a buffer to stress and anxiety and are seen as a powerful mediator that leads to resilience and improved well-being even in periods of hardship and suffering (Pezirkianidis & Stalikas, 2020; Rueger et al., 2016; Mohd et al., 2019).

In conclusion, the findings of the present study are a first step in understanding the term "positive relationships", their qualities and characteristics. However, there are some limitations in the present study. Mainly the method of sampling, since a part of the sample was self-selected and probably more eager to provide information about their relationships. Also, a random sampling method did not take place. Yet our findings indicate that PRQ is a reliable and valid questionnaire and future studies should focus on further examining its psychometric properties, confirming its factorial structure and explore the effects of positive relationships on well-being.

As positive psychology blooms, more and more people and practitioners focus on the cultivation of positive relationships as an integral component of wellbeing; this instrument will provide a unique and useful tool for evaluating and understanding the quality and content of positive relationships and will facilitate interventions aiming at the enhancement of psychological flourishing through building positive relationships. In the era of COVID-19 pandemic, the studies that focus on understanding the positive relationship characteristics in different samples and their impact on well-being components are of high social and clinical importance. Also, a better understanding of positive relationships will facilitate the design of novel interventions that can be useful tools for mental health promotion in different settings, like schools, individual and group counselling, and psychotherapy.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Antonucci, T. (2012). Social Relations in an Aging Society: Future Directions. International Journal of Psychology, 47, 231.
- Best, P., Manktelow, R., & Taylor, B. (2014). Online Communication, Social Media and Adolescent Wellbeing: A Systematic Narrative Review. *Children and Youth Services Review, 41,* 27-36. <u>https://doi.org/10.1016/j.childyouth.2014.03.001</u>
- Bronkema, R. H., & Bowman, N. A. (2017). Close Campus Friendships and College Student Success. *Journal of College Student Retention: Research, Theory & Practice, 21*, 270-285. https://doi.org/10.1177/1521025117704200
- Butler, J., & Kern, M. (2016). The PERMA-Profiler: A Brief Multidimensional Measure of Flourishing. *International Journal of Wellbeing*, *6*, 1-48. <u>https://doi.org/10.5502/ijw.v6i3.526</u>
- Chandoevwit, W., & Thampanishvong, K. (2016). Valuing Social Relationships and Improved Health Condition among the Thai Population. *Journal of Happiness Studies,*

17, 2167-2189. https://doi.org/10.1007/s10902-015-9690-0

- Chu, P., Saucier, D., & Hafner, E. (2010). Meta-Analysis of the Relationships between Social Support and Well-Being in Children and Adolescents. *Journal of Social and Clinical Psychology, 29*, 624-645. <u>https://doi.org/10.1521/jscp.2010.29.6.624</u>
- Demir, M. (2010). Close Relationships and Happiness among Emerging Adults. *Journal of Happiness Studies, 11,* 293-313. <u>https://doi.org/10.1007/s10902-009-9141-x</u>
- Demir, M. (2015). *Friendship and Happiness: Across the Life-Span and Cultures*. Dordrecht: Springer. https://doi.org/10.1007/978-94-017-9603-3
- Demir, M., & Weitekamp, L. (2007). I Am So Happy Cause Today I Found My Friend: Friendship and Personality as Predictors of Happiness. *Journal of Happiness Studies, 8*, 181-211. <u>https://doi.org/10.1007/s10902-006-9012-7</u>
- Diener, E., & Biswas-Diener, R. (2008). Happiness: Unlocking the Mysteries of Psychological Wealth. Malden, MA: Wiley/Blackwell. https://doi.org/10.1002/9781444305159
- Dunn, J. R., & Schweitzer, M. E. (2005). Feeling and Believing: The Influence of Emotion on Trust. *Journal of Personality and Social Psychology*, *88*, 736-748. https://doi.org/10.1037/0022-3514.88.5.736
- Feeney, B. C., & Collins, N. L. (2015). A New Look at Social Support: A Theoretical Perspective on Thriving through Relationships. *Personality and Social Psychology Review*, 19, 113-147. https://doi.org/10.1177/1088868314544222
- Fehr, B., & Harasymchuk, C. (2018). The Role of Friendships in Wellbeing. In J. Maddux (Ed.), Subjective Wellbeing and Life Satisfaction (pp. 103-128). New York: Routledge. https://doi.org/10.4324/9781351231879-5
- Fowler, J. H., & Christakis, N. A. (2008). Dynamic Spread of Happiness in a Large Social Network: Longitudinal Analysis over 20 Years in the Framingham Heart Study. *British Medical Journal*, 337, a2338. <u>https://doi.org/10.1136/bmj.a2338</u>
- Fratiglioni, L., Paillard-Borg, S., & Winblad, B. (2004). An Active and Socially Integrated Lifestyle in Late Life Might Protect against Dementia. *The Lancet Neurology*, *3*, 343-353. https://doi.org/10.1016/S1474-4422(04)00767-7
- Fredrickson, B. L., Cohn, M. A., Coffey, K. A., Pek, J., & Finkel, S. M. (2008). Open Hearts Build Lives: Positive Emotions, Induced through Loving-Kindness Meditation, Build Consequential Personal Resources. *Journal of Personality and Social Psychology*, 95, 1045-1062. <u>https://doi.org/10.1037/a0013262</u>
- Fu, C., Li, Z., & Mao, Z. (2018). Association between Social Activities and Cognitive Function among the Elderly in China: A Cross-Sectional Study. *International Journal* of Environmental Research and Public Health, 15, 231-242. https://doi.org/10.3390/ijerph15020231
- Gable, S. L., Gonzaga, G. C., & Strachman, A. (2006). Will You Be There for Me When Things Go Right? Supportive Responses to Positive Event Disclosures. *Journal of Personality and Social Psychology*, *91*, 904-917. <u>https://doi.org/10.1037/0022-3514.91.5.904</u>
- Gariepy, G., Honkaniemi, H., & Quesnel-Vallee, A. (2016). Social Support and Protection from Depression: Systematic Review of Current Findings in Western Countries. *The British Journal of Psychiatry, 209*, 284-293. <u>https://doi.org/10.1192/bjp.bp.115.169094</u>
- Heck, K., & Fowler, J. H. (2007). Friends, Trust, and Civic Engagement. *Social Science Research Network*. <u>https://doi.org/10.2139/ssrn.1024985</u>
- Holt-Lunstad, J., & Smith, T. B. (2012). Social Relationships and Mortality. *Social and Personality Psychology Compass, 6*, 41-53. https://doi.org/10.1111/j.1751-9004.2011.00406.x

- Kawachi, I., & Berkman, L. F. (2001). Social Ties and Mental Health. *Journal of Urban Health, 78*, 458-467. https://doi.org/10.1093/jurban/78.3.458
- Keyes, C. L. M. (2002). The Mental Health Continuum: From Languishing to Flourishing in Life. *Journal of Health and Social Behavior*, 43, 207-222. https://doi.org/10.2307/3090197
- Keyes, C. L. M. (2005). Mental Illness and/or Mental Health? Investigating Axioms of the Complete State Model of Health. *Journal of Consulting and Clinical Psychology*, *73*, 539-548. <u>https://doi.org/10.1037/0022-006X.73.3.539</u>
- Keyes, C. L. M. (2010). The Next Steps in the Promotion and Protection of Positive Mental Health. *Canadian Journal of Nursing Research, 42,* 17-28.
- Koestner, R., Powers, T. A., Carbonneau, N., Milyavskaya, M., & Chua, S. N. (2012). Distinguishing Autonomous and Directive Forms of Goal Support: Their Effects on Goal Progress, Relationship Quality, and Subjective Well-Being. *Personality and Social Psychology Bulletin, 38*, 1609-1620. <u>https://doi.org/10.1177/0146167212457075</u>
- Kornieko, O., & Santos, C. (2013). The Effects of Friendship Network Popularity on Depressive Symptoms during Early Adolescence: Moderation by Fear of Negative Evaluation and Gender. *Journal of Youth Adolescence*, 43, 541-553. <u>https://doi.org/10.1007/s10964-013-9979-4</u>
- Krause, N., & Hayward, R. D. (2015). Social Perspectives: Support, Social Relations, and Well-Being. In P. A. Lichtenberg, B. T. Mast, B. D. Carpenter, & J. Loebach Wetherell (Eds.), APA Handbook of Clinical Geropsychology, Vol. 1. History and Status of the Field and Perspectives on Aging (pp. 259-299). Washington DC: American Psychological Association. <u>https://doi.org/10.1037/14458-012</u>
- Lachman, M. E., & Agrigoroaei, S. (2010). Promoting Functional Health in Midlife and Old Age: Long-Term Protective Effects of Control Beliefs, Social Support, and Physical Exercise. *PLoS ONE*, *5*, e13297. <u>https://doi.org/10.1371/journal.pone.0013297</u>
- Lakey, B., & Cronin, A. (2008). Low Social Support and Major Depression: Research, Theory and Methodological Issues. In *Risk Factors in Depression* (pp. 385-408). Amsterdam: Elsevier. <u>https://doi.org/10.1016/B978-0-08-045078-0.00017-4</u>
- Lakey, B., & Orehek, E. (2011). Relational Regulation Theory: A New Approach to Explain the Link between Perceived Social Support and Mental Health. *Psychological Review, 118,* 482-496. https://doi.org/10.1037/a0023477
- Lascano, D. I. V. (2016). Transitioning to University: The Effect of Changes in Academic Engagement and Pressure and Support from Friends on Grades. Doctoral Dissertation, Edmonton: University of Alberta.
- Laursen, B., Bukowski, W. M., Aunola, K., & Nurmi, J. E. (2007). Friendship Moderates Prospective Associations between Social Isolation and Adjustment Problems in Young Children. *Child Development*, 78, 1395-1404. https://doi.org/10.1111/j.1467-8624.2007.01072.x
- Li, H., Ji, Y., & Chen, T. (2014). The Roles of Different Sources of Social Support on Emotional Well-Being among Chinese Elderly. *PLoS ONE*, *9*, e90051. https://doi.org/10.1371/journal.pone.0090051
- Liu, J, Kwan, H. K., Fu, P. P., & Mao, Y. (2013). Ethical Leadership and Job Performance in China: The Roles of Workplace Friendships and Traditionality. *Journal of Occupational and Organizational Psychology, 86*, 564-584. <u>https://doi.org/10.1111/joop.12027</u>
- Liu, L., Gou, Z., & Zuo, J. (2016). Social Support Mediates Loneliness and Depression in Elderly People. *Journal of Health Psychology, 21*, 750-758. https://doi.org/10.1177/1359105314536941

- Lucas, R. E., Clark, A. E., Georgellis, Y., & Diener, E. (2003). Reexamining Adaptation and the Set Point Model of Happiness: Reactions to Changes in Marital Status. *Journal* of Personality and Social Psychology, 84, 527-539. https://doi.org/10.1037/0022-3514.84.3.527
- Lyubomirsky, S. (2008). *The How of Happiness: A Scientific Approach to Getting the Life You Want.* New York: Penguin Press.
- Lyubomirsky, S., Sheldon, K., & Schkade, D. (2005). Pursuing Happiness: The Architecture of Sustainable Change. *Review of General Psychology*, *9*, 111-131. https://doi.org/10.1037/1089-2680.9.2.111
- Mertika, A., Mitskidou, P., & Stalikas, A. (2018). A Thematic Analysis of the Characteristics of Positive Relationships. Oral Presentation at ICPPW 2018: 20th.
- Mertika, A., Mitskidou, P., & Stalikas, A. (2020). "Positive Relationships" and Their Impact on Wellbeing: A Review of Current Literature. *Psychology: The Journal of the Hellenic Psychological Society, 25*, 115-127. https://doi.org/10.12681/psy_hps.25340
- Mertika, A., Pezirkianidis, C., Mitskidou, P., & Stalikas, A. (under preparation). *What Are Positive Relationships Made of? A Thematic Analysis.*
- Merz, E. M., & Huxhold, O. (2010). Wellbeing Depends on Social Relationship Characteristics: Comparing Different Types and Providers of Support to Older Adults. *Ageing* and Society, 30, 843-857. <u>https://doi.org/10.1017/S0144686X10000061</u>
- Mohd, T. A. M. T., Yunus, R. M., Hairi, F., Hairi, N. N., & Choo, W. Y. (2019). Social Support and Depression among Community Dwelling Older Adults in Asia: A Systematic Review. *BMJ Open*, 9, e026667. https://doi.org/10.1136/bmjopen-2018-026667
- Nguyen, A. W., Chatters, L. M., Taylor, R. J., & Mouzon, D. M. (2016). Social Support from Family and Friends and Subjective Well-Being of Older African Americans. *Journal of Happiness Studies, 17*, 959-979. https://doi.org/10.1007/s10902-015-9626-8
- Park, J., & Roh, S. (2013). Daily Spiritual Experiences, Social Support, and Depression among Elderly Korean Immigrants. *Aging & Mental Health*, 17, 102-108. <u>https://doi.org/10.1080/13607863.2012.715138</u>
- Pezirkianidis, C. (2020). *Construction of a Theoretical Model for Adult Friendships under the Scope of Positive Psychology.* PhD Thesis, Athens: Panteion University of Social and Political Sciences. <u>https://www.didaktorika.gr/eadd/handle/10442/48037</u>
- Pezirkianidis, C., & Stalikas, A. (2020). Introduction-Latest Developments in Positive Psychology: The Case of Greece. *Psychology: The Journal of the Hellenic Psychological Society, 25*, 1-19. <u>https://doi.org/10.12681/psy_hps.25328</u>
- Pezirkianidis, C., Stalikas, A., Lakioti, A., & Yotsidi, V. (2019). Validating a Multidimensional Measure of Wellbeing in Greece: Translation, Factor Structure, and Measurement Invariance of the PERMA Profiler. *Current Psychology*, 1-18. <u>https://doi.org/10.1007/s12144-019-00236-7</u>
- Pierce, K. D., & Quiroz, C. S. (2019). Who Matters Most? Social Support, Social Strain, and Emotions. *Journal of Social and Personal Relationships*, *36*, 3273-3292. https://doi.org/10.1177/0265407518817400
- Reinhardt, J. P., Boerner, K., & Horowitz, A. (2006). Good to Have But Not to Use: Differential Impact of Perceived and Received Support on Well-Being. *Journal of Social and Personal Relationships*, 23, 117-129. https://doi.org/10.1177/0265407506060182
- Roffey, S. (2012). *Positive Relationships: Evidence Based Practice across the World*. New York: Springer Publishing. <u>https://doi.org/10.1007/978-94-007-2147-0_1</u>
- Rueger, S. Y., Malecki, C. K., Pyun, Y., Aycock, C., & Coyle, S. (2016). A Meta-Analytic

Review of the Association between Perceived Social Support and Depression in Childhood and Adolescence. *Psychological Bulletin, 142,* 1017. https://doi.org/10.1037/bul0000058

- Ryff, C. D. (2014). Psychological Well-Being Revisited: Advances in the Science and Practice of Eudaimonia. *Psychotherapy and Psychosomatics*, *83*, 10-28. https://doi.org/10.1159/000353263
- Ryff, C. D., & Singer, B. H. (2008). Know Thyself and Become What You Are: A Eudaimonic Approach to Psychological Well-Being. *Journal of Happiness Studies*, *9*, 13-39. https://doi.org/10.1007/s10902-006-9019-0
- Seligman, M. (2002). Authentic Happiness. New York: Free Press.
- Seligman, M. E. P. (2011). Flourish: A Visionary New Understanding of Happiness and Well-Being. New York: Free Press.
- Silvy, M., & Lestari, W., & Hudiwinarsih, G. (2009). Friendship in College and Its Influence on Retention and Performance. *Social Science Research Network*. <u>https://doi.org/10.2139/ssrn.2021904</u>
- Sørensen, T., la Cour, P., Danbolt, L. J., Stifoss-Hanssen, H., Lien, L., DeMarinis, V., Schnell, T. et al. (2019). The Sources of Meaning and Meaning in Life Questionnaire in the Norwegian Context: Relations to Mental Health, Quality of Life, and Self-Efficacy. *The International Journal for the Psychology of Religion, 29*, 32-45. https://doi.org/10.1080/10508619.2018.1547614
- Tan, C.-S., Krishnan, S., & Lee, Q.-W. (2017). The Role of Self-Esteem and Social Support in the Relationship between Extraversion and Happiness: A Serial Mediation Model. *Current Psychology*, 36, 556-564. https://doi.org/10.1007/s12144-016-9444-0
- Telzer, E., Fuligni, A., Lieberman, M., Miernicki, M., & Galvan, A. (2015). The Quality of Adolescents' Peer Relationships Modulates Neural Sensitivity to Risk Taking. *Social Cognitive and Affective Neuroscience*, 10, 389-398. https://doi.org/10.1093/scan/nsu064
- Uchino, B. N. (2009). Understanding the Links between Social Support and Physical Health: A Life-Span Perspective with Emphasis on the Separability of Perceived and Received Support. *Perspectives on Psychological Science*, *4*, 236-255. https://doi.org/10.1111/j.1745-6924.2009.01122.x
- Urry, H. L., & Gross, J. J. (2010). Emotion Regulation in Older Age. Current Directions in Psychological Science, 19, 352-357. <u>https://doi.org/10.1177/0963721410388395</u>
- Vaillant, G. E. (2012). Positive Mental Health: Is There a Cross-Cultural Definition? World Psychiatry, 11, 93-99. <u>https://doi.org/10.1016/j.wpsyc.2012.05.006</u>
- Verhofstadt, L. L., Buysse, A., Ickes, W., Davis, M., & Devoldre, I. (2008). Support Provision in Marriage: The Role of Emotional Similarity and Empathic Accuracy. *Emotion*, 8, 792-802. <u>https://doi.org/10.1037/a0013976</u>
- Wang, J., Jackson, L., Gaskin, J., & Wang, H. (2014). The Effects of Social Networking Site (SNS) Use on College Students' Friendship and Well-Being. *Computers in Human Behavior*, 37, 229-236. <u>https://doi.org/10.1016/j.chb.2014.04.051</u>
- Wang, M., & Eccles, J. (2012). Social Support Matters: Longitudinal Effects of Social Support on Three Dimensions of School Engagement from Middle to High School. *Child Development*, 83, 877-895. <u>https://doi.org/10.1111/j.1467-8624.2012.01745.x</u>
- Waugh, C. E., & Fredrickson, B. L. (2006). Nice to Know You: Positive Emotions, Self-Other Overlap, and Complex Understanding in the Formation of a New Relationship. *The Journal of Positive Psychology*, 1, 93-106. <u>https://doi.org/10.1080/17439760500510569</u>
- Wood, L., Martin, K., Christian, H., Nathan, A., Lauritsen, C., Houghton, S., & McCune,

S. (2015). The Pet Factor-Companion Animals as a Conduit for Getting to Know People, Friendship Formation and Social Support. *PLoS ONE, 10*, e0122085. <u>https://doi.org/10.1371/journal.pone.0122085</u>

- Yang, Y. C., Schorpp, K., & Harris, K. M. (2014). Social Support, Social Strain and Inflammation: Evidence from a National Longitudinal Study of US Adults. *Social Science* & *Medicine*, *107*, 124-135. https://doi.org/10.1016/j.socscimed.2014.02.013
- Zhang, H., Sang, Z., Chan, D. K. S., & Schlegel, R. (2019). Threats to Belongingness and Meaning in Life: A Test of the Compensation among Sources of Meaning. *Motivation and Emotion*, *43*, 242-254. https://doi.org/10.1007/s11031-018-9737-8
- Zielińska-Więczkowska, H., Ciemnoczołowski, W., Kędziora-Kornatowska, K., & Muszalik, M. (2012). The Sense of Coherence (SOC) as an Important Determinant of Life Satisfaction, Based on Own Research, and Exemplified by the Students of University of the Third Age (U3A). Archives of Gerontology and Geriatrics, 54, 238-241. https://doi.org/10.1016/j.archger.2011.03.008