

VALIDATION OF THE VALUING QUESTIONNAIRE (VQ) TO THE ARGENTINIAN CONTEXT

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Abstract

The aim of this study was to examine the psychometric properties of the Spanish version of the "Values Questionnaire" (VQ) in an Argentine sample. The VQ was administered to a total of 1596 participants. Measures of acceptance and action, cognitive fusion, life satisfaction, and sociodemographic variables were also included. The results confirmed the bifactor structure of the VQ. The scale showed adequate internal consistency and significant correlations with the former variables, which demonstrates adequate criterion validity. Furthermore, obstruction values emerged as a good predictor of low life satisfaction. In conclusion, the Argentine version of the VQ showed good psychometric properties to be used in the Argentine context.

KEY WORDS: *values, questionnaire, validation, life satisfaction.*

Resumen

El objetivo de este estudio fue examinar las propiedades psicométricas de la versión española del "Cuestionario de valores" (VQ) en una muestra argentina. El VQ se administró a un total de 1596 participantes. También se incluyeron medidas de aceptación y acción, fusión cognitiva, satisfacción con la vida y variables sociodemográficas. Los resultados confirmaron la estructura bifactorial del VQ. La escala mostró una consistencia interna adecuada y correlaciones significativas con las variables indicadas, lo que da cuenta de una validez de criterio adecuada. Además, los valores de obstrucción surgieron como un buen predictor de baja satisfacción con la vida. En conclusión, la versión argentina del VQ mostró buenas propiedades psicométricas para ser utilizada en el contexto argentino.

PALABRAS CLAVE: *valores, cuestionario, validación, satisfacción con la vida.*

Introduction

The work on personal values in psychotherapy has a tradition that comes from different schools within the field of clinical psychology (Holmes & Lindley, 2018). The explicit approach to personal values in psychotherapy is not present in all

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models. However, we have precursor contributions of personal values as the focus of treatment. Examples of this are Logotherapy and client-centered psychotherapy (Längle, 2019). Frankl (1966), creator of logotherapy, maintains that it is fundamental within the psychotherapy process that the client knows his values and takes responsibility for cultivating them, which would constitute a “meaning of life” that is personal and unique. For his part, Rogers (1966), creator of client-centered psychotherapy, focused on the development of self-actualization in the therapy process, referring to the deployment of human potential, including within this process the unconditional acceptance of the values and goals of each person (Längle, 2019).

Later developments also included work with personal values as a fundamental component within psychotherapy. Such is the case of dialectical behavior therapy (DBT; Linehan, 1993), behavioral activation therapy for depression (Lejuez et al., 2001; Martell et al., 2001) and the elaboration model of meaning of eating disorders (Marco et al., 2021). Within these later developments in the field of psychotherapy that considers work on personal values as a fundamental component, is acceptance and commitment therapy (ACT; Hayes et al., 1999).

One of the main goals of ACT is to identify and connect with personal values, as well as to design and achieve actions guided by those values (Wilson & Murrell, 2004). In other words, the goal is to create a rich and meaningful life, accepting the unavoidable pain that life brings (Harris, 2006). In this sense, some evidence revealed that when behavioral patterns are based on personal values, they are usually associated with greater life satisfaction, greater change orientation, and more psychological well-being (Epton et al., 2015; Gloster et al., 2017).

While ACT can be identified as a model of psychotherapy with behavioral roots that can be placed within the so called “third wave therapies” (Hayes et al., 2004), its technology has been designed based on the contents of the Relational Frame Theory (Hayes et al., 2001). This model of psychotherapy emphasizes on increasing psychological flexibility in order to connect with personal values rather than focusing on symptomatic reduction (Wilson et al., 2010). In any case, symptomatic reduction would happen as a consequence of the increase in some of the skills included in the concept of psychological flexibility: perhaps the most important skill is the identification and connection with one's own values. Thus, ACT therapeutic strategies are subordinated to the goal of helping the client to live according to his or her personal values (Hayes et al., 1999).

The most complete definition of personal values within the ACT model is possibly the one provided by Wilson and DuFrene (2009) “values are verbally constructed consequences for ongoing dynamic, evolving patterns of activity, which establish predominant reinforcers for that activity that are intrinsic in engagement in the valued behavioral pattern itself” (p. 66). Those desired consequences are freely chosen (Lundgren & Larsson, 2018). Despite the verbal dimension of the values definition, Bonow and Follette (2009) propose a new action dimension to distinguish verbal statements about values (e.g., “this is important in my life”, “this is good for me”, “I want my life to be about this”) from what they call valuing.

Valuing involves a pattern of action (not isolated actions) and it is assumed that if someone repeatedly behaves in one direction that means they value to behave in that direction. Frequently, valuing is independent of what is verbalized about values; for example, one may assume that if one spends a lot of time walking one's dog that is something one values even if it is not verbally stated as important. Perhaps the major limitation of this last perspective on personal values is that it does not distinguish whether those actions that constitute a pattern are carried out by appetitive control or by aversive control -social rules of how to behave, for example- (da Silva Ferreira et al., 2020). A final proposal that overcomes some of the above limitations is to define personal values as stable qualities of the action, identified by the individual, which establish positive reinforcing functions for the described action (da Silva Ferreira et al., 2020). In other words, personal values are usually stable or undergo only small variations throughout life.

Given the relevance of the identification and connection with personal values within the ACT model, it is essential to have solid instruments that can assess this variable independently and measure the impact of interventions in relation to the construction of a meaningful and values-oriented life.

Before the Valuing Questionnaire was developed (VQ; Smout et al., 2014), different instruments assessing the Values variable were used within the ACT model. What these instruments have in common is that they assess values in relation to different life areas separately. For example, the Valued Living Questionnaire (VLQ; Wilson et al., 2010), which assesses the importance of values in 10 separate vital areas and then assesses how consistent actions have been in each vital area of importance; it attempts to identify discrepancies between what is verbalized as valued and what was acted upon in that direction for each vital area; the Chronic Pain Values Inventory (CPVI; McCracken & Yang, 2006), which assesses values in 6 vital areas in order of relevance and how much the person was able to act in a valued way in each area; the Values Bull's Eye (Lundgren et al., 2012) which consists of a chart depicting a target with 7 concentric circles divided into 4 vital areas and the person must indicate for each vital area on the target how close or far they were from cultivating their values, closer to "hitting the target" means approaching values; finally, the Personal Values Questionnaire (PVQ; Ciarrochi et al., 2010) consists on describing values in 9 vital areas and then scoring how successful the person has been in living according to those values and how much commitment the person has in getting closer to those values (how much he/she cares about working to cultivate them more).

Although these instruments have shown positive correlations with constructs such as life satisfaction and psychological well-being (more connection with values, greater well-being/satisfaction), they have the limitation of evaluating separate life areas (family, work, friends, studies, community, health, among others). This represents a weakness because the areas are assessed in a separated way and it is essential to analyze how the time dedicated to values during life is invested in the vital areas considered as a whole (Smout et al., 2014). Also, assessment by areas can make a consistent overall assessment difficult: it can be difficult to contrast results

of much connection in one area and almost none in another with those scores that refer moderate approximation in all life areas. The VQ (Smout et al., 2014) attempts to solve these limitations by assessing value-linked actions without distinction of particular vital areas, in a brief format, easy to answer and not requiring theoretical knowledge about the model to complete. Finally, the VQ has highest psychometric robustness within the ACT model, according to a recent systematic review (Barrett et al., 2019).

The VQ is a 10-item self-report questionnaire. The items are broad enough to be used across different clinical and nonclinical populations. Factor analyses - exploratory and confirmatory- yielded two factors: Progress (in living according to values), reflects connection with values, including clarity and awareness of what is personally important and perseverance in living accordingly; and Obstruction (in living according to values), reflects the disconnection with a values-oriented life due to experiential avoidance and cognitive fusion which generates inattention to important values.

The VQ has shown adequate internal consistency for both the Progress scale ($\alpha = .87$, average inter-item correlation $r = .57$ [.46 - .75]) and for the Obstruction scale ($\alpha = .87$ average inter-item correlation $r = .58$ [.44 - .71]). Besides the scale showed adequate convergent validity since higher scores on Progress showed associations with positive affect, life satisfaction, life purpose and self-acceptance. Moreover, higher scores on Obstruction were associated with depressive symptoms and negative affect (Smout et al., 2014).

Different VQ validations and psychometric properties studies were developed in different countries. There is a Colombian version (Ruiz et al., 2022), a Spanish version (Ruiz et al, 2022) and a Japanese version of the VQ (Satomi Doi et al., 2017). We also came across a Persian version with a sample of adults involved in weight loss (Nonahal et al., 2020), a Swedish version with a sample of adults with chronic pain (Rickardsson et al., 2019), a Portuguese version also studied in a sample of adults with chronic pain (Carvalho et al., 2018) and a version applied for the specific population of adults with cardiovascular disease (Kibbey et al., 2020). In the Colombian study, the internal consistency was tested for Progress ($\alpha = .83$) and Obstruction ($\alpha = .82$), and measurement invariance was found across three samples. The first sample consisted of 762 undergraduate students (62% females, with an age range from 18 to 63), the second sample comprised a total of 724 individuals (74.4% females, age range from 18 to 88 years), and the third sample was composed by clinical participants with a total of 334 individuals (66.8% females, age range 18 to 67 years). In all samples, the two-factor model obtained a good fit to the data testing by confirmatory factor analysis (CFA). Regarding the Spanish study, the internal consistency was adequate for VQ Progress ($\alpha = .85$) and VQ Obstruction ($\alpha = .84$). The sample was composed by 846 Spanish participants (75.7% females and with an age range between 18 and 72). The two-factor model obtained a good fit to the data (RMSEA= .073, 90% CI [.063, .083], CFI= .98, NNFI= .97, and SRMR= .053). The VQ showed invariance across gender. In the Japanese study the sample was composed by 262 university students. A confirmatory factor analysis

was conducted and the results showed that the Japanese version of the VQ has a two-factor structure. The same bifactor structure was found in the Portuguese version in two samples. One sample of women with Chronic Pain (N= 231) and the other sample was composed by general population (N= 268). The Persian version of VQ, tested in a sample of 420 participants, showed an adequate Cronbach's alphas range ($.73 > \alpha > .85$). To date, the psychometric properties of the VQ have not been evaluated in an Argentine sample. The purpose of the present research was to perform a linguistic and conceptual adaptation of the VQ (Smout et al., 2014) followed by an analysis of its psychometric properties in Argentina and correlations with related variables.

Our hypothesis are the following: 1) The VQ will have a bifactorial structure, as observed in the original scale (Smout et al., 2014) and will get adequate internal consistency. Also we consider not to find differences by sex, as reported in previous studies. 2) Higher scores in VQ Progress will correlate positively with higher scores in Satisfaction with Life (SWLS) and negatively with higher scores in Cognitive Fusion (CFQ) and Avoidance (AAQ II). 3) Higher scores in VQ Obstruction will correlate positively with Cognitive Fusion (CFQ) and Avoidance (AAQ II) and negatively with higher scores in Satisfaction with Life (SWLS). 4) The Avoidance (AAQ-II) and VQ Obstruction are the main predictors of life satisfaction.

Method

Participants

The sample was convenience and consisted of 1596 adults from different regions in Argentina (Table 1), with ages between 18 and 80 years ($M = 49.90$; $SD = 15.59$), 60.9% were female, 37.5% male, while 1.6% indicated "non binary gender". Regarding education level, 2.9% of the sample had only elementary education (complete and incomplete) 33.8% had high school education (complete and incomplete), 26.6% had tertiary education (comparable to an Associate's Degree), 36.7% had completed university education. With respect to social class, 9.4% of the participants indicated belonging to the lower class, 35.9% to the lower-middle class, 50% to the middle class and 4.7% to the upper class. No cases were dismissed from the total sample due to missing values, according to Tabachnick et al. (2007) criteria (cut off $\geq 5\%$).

Instruments

- a) *Valuing Questionnaire* (VQ; Smout et al., 2014). The VQ is a self-report measure that contains 10 items rated on a scale of 0 (Not at all true) to 6 (Completely true) aimed to assess the extent to which respondents have engaged in values-consistent living in the past-two weeks. The VQ yields two subscales: Values Progress (5 items, e.g., "I made progress in the areas of my life I care most about") and Values Obstruction (5 items, e.g., "Difficult thoughts, feelings or

memories got in the way of what I really wanted to do”). Higher scores indicate greater Progress and Obstruction, respectively (Smout et al., 2014). Internal consistency of the factor scores in previous validation studies ranged from $.81 < \alpha < .87$ for Progress and $.79 < \alpha < .89$ for Obstruction, with the two factor scores being moderately negatively inter-correlated ($-.50 < r < -.66$) (Carvalho et al., 2018; Smout et al., 2014).

Table 1
Distribution of cases by region of residence

Geographic region	<i>n</i>	%	Gender (%)		Age	
			Female	Male	<i>M</i> (<i>SD</i>)	Range
Autonomous City of Buenos Aires	189	11.8	57.1	42.9	57.05 (16.46)	18-80
Buenos Aires Province	760	47.6	67.3	32.7	47.49 (15.07)	18-80
Region 1 (Córdoba, Santa Fe, Mendoza, San Luis, San Juan)	275	17.2	51.3	48.7	53.32 (15.44)	18-80
Region 2 (Salta, Jujuy, Catamarca, La Rioja, Santiago del Estero, Tucumán)	88	5.5	53.4	46.6	46.14 (14.93)	19-80
Region 3 (Misiones, Chaco, Formosa, Entre Ríos y Corrientes)	168	10.5	57.7	42.3	49.11 (13.73)	18-80
Patagonian Region (La Pampa, Río Negro, Neuquén, Chubut, Santa Cruz, Tierra del Fuego)	116	7.3	58.8	41.2	49.69 (15.81)	20-80
Total	1596	100	60.9	37.5	49.90 (15.59)	18-80

- b) *Acceptance and Action Questionnaire-II* (AAQ-II; Bond et al., 2011), Spanish version by Ruiz et al. (2013). The AAQ-II is a seven-item self-report measure to assess psychological inflexibility (e.g., “I’m afraid of my feelings”) rated on a seven-point Likert scale (from 1= “Never true” to 7= “Always true”). Higher scores indicate greater psychological inflexibility. The Cronbach’s Alpha of the original scale was $\alpha = .84$ and between $.75 < \alpha < .93$ among different samples for the Spanish version used in the present study. The Spanish version has a one-factor structure and shows statistically significant differences between clinical and non-clinical samples.
- c) *Cognitive Fusion Questionnaire* (CFQ; Gillanders et al., 2014), Argentinian version (CFQ-VA) by José Quintero et al. (2022). The CFQ measures the level of cognitive fusion that a person shows for a variety of proposed situations. It is a seven-item self-report measure in which the participants are asked to endorse the extent to which they agree on each item (e.g., “I over-analyze situations to

- the point where it's unhelpful to me") using a seven-point Likert scale (from 1= "Never true" to 7= "Always true"). Higher scores indicate greater fusion. Cronbach's Alpha values for the original version were adequate among different samples ($.88 < \alpha < .93$) as well as the model fit indexes ($.962 < CFI < .991$; $.049 < SRMR < .086$) across different samples (Gillanders et al. 2014).
- d) *Satisfaction with Life Scale* (SWLS; Diener et al., 1985), Spanish version (Dimitrova et al., 2015; Esnaola et al., 2017). The SWLS measures the subjective criteria of satisfaction with life on five items (e.g., "For most things, my life is close to my ideal"; "So far, I have gotten the things that are important to me in life", and "If I were born again, I would change almost nothing in my life"). The original SWL scale includes a seven-point Likert scale ranging from "1 = Strongly disagree" to "7 = Strongly agree". Higher scores indicate greater satisfaction with life.
- e) *Ad hoc Socio-Demographic Questionnaire*. Participants were asked to provide information regarding their age, sex, level of education, and social class.

Procedure

People who met the criteria of age (over 18 years of age) and geographic region were invited to participate via social media (Facebook, Instagram and Twitter), based on the quotas stipulated for the sample distribution. The sample was convenience (non-representative of the population). Participants were previously informed, at the start, about the purpose of the study, the institution responsible for it, and provided with a contact e-mail address in case they required further information. Additionally, they were informed that the data collected in this study would only be used for academic-scientific purposes and would be protected in accordance with Argentine National Law 25,326 on the protection of personal data. All procedures carried out in our study were in accordance with the ethical standards of the institutional and research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Subsequently, participants completed the protocol - administered online- including all the measures. A back translation of the items of the Valuing Questionnaire (VQ) that were analyzed was carried out (English-Spanish-English) by two linguists. Subsequently, the instrument was evaluated by expert judges, one with knowledge about VQ and another expert in psychometrics, who analyzed the conceptual equivalence of the original version of the instrument with the two independent translations. Finally, we analyze the CVI (Content Validity Index) (Waltz et al., 2005) and the result was 0.97. Values of 0.80 or higher are acceptable (Polit & Beck, 2004).

Data analysis

First, a descriptive analysis of the VQ items (means, standard deviations, and measures of dispersion). Regarding skewness and kurtosis we follow the parameters proposed by Botella et al. (1993), where is stated that values between -1,4 and 1,4

are adequate. For the item-total correlation (r_{it}) we follow de Hair et al. (2010) criteria (adequate values $\geq .35$) and for the Cronbach's alpha if item deleted (α_i) indicator we considered the elimination of any item increases the internal consistency of the scale. A confirmatory factor analysis (CFA) was performed to test the fit of the VQ two correlated factors using the maximum likelihood (ML) estimation with Satorra-Bentler's robust correction (S-B) (Satorra, 2002). Different goodness-of-fit indexes were used to determine the model's adjustment: Chi-square (χ^2/df), comparative fit index (CFI), iterative fit index (IFI), root mean square error of approximation (RMSEA), following the cut of criteria of Hu and Bentler (1998) ($< .06$ for RMSEA; $> .95$ for the CFI and IFI are indicative of adequate model fit). Cronbach's Alpha (α) was used in order to assess internal consistency and also the McDonald's omega (ω). The average variance extracted (AVE) was also calculated to evaluate the discriminant validity (adequate values $> .50$). The ceiling and floor effect were also calculated, defined as the percentage of people with the lowest (floor) and highest (ceiling) score in each dimension. We conducted an independent samples' t-test with the purpose of testing for any significant differences between male and female participants on the VQ results. We also used Pearson's correlations matrix to assess criterion validity and Spearman's correlation when ordinal variables were used. Finally, a linear regression was carried out to explore the role of values as a predictor of satisfaction with life. We have included the AAQ II in the first step and the CFQ in a second step to explore if are any incremental validity in predicting satisfaction with life and, in the third step, we add the VQ Obstruction and VQ Progress dimensions. In all cases, the normality criteria and the outliers of the structured variables were calculated to perform the parametric analyses. The different analysis were conducted using the SPSS v.20 and AMOS v.20.

Results

First we proceeded to test the descriptive statistics of the Valuing Questionnaire items (Table 2). All the descriptive statistics were adequate for the VQ 10 items. No skewness or kurtosis bias was observed according to the parameters proposed by Botella et al. (1993), and all components added reliability to their own dimension. In general, all the items contribute adequately to the set of each subscale, since they present's an adequate correlation with the total scale, and the reliability of each subscale it is not improved by eliminating any item. Regarding the ceiling and floor effects, after analyzing the frequency of the responses of each item in values 1 and 5, it was found that the floor effect ranged between 0.2-0.5 and the ceiling effect ranged between 0.7-4.2 (according to Terwee et al., 2007, floor or ceiling effects are considered to be present if more than 15% of respondents achieved the lowest or highest possible score).

Subsequently, the construct validity of the VQ was analyzed, exploring whether the data presented an adequate fit for the one- and two-dimensional model of the construct (Table 3). The correlated two-dimensional model presents an adequate fit to the data collected, while the one-dimensional model does not. As we have

hypothesized (H1), the VQ has a bifactorial structure, as observed in the original scale (Smout et al., 2014).

Table 2
Descriptive statistics of the Valuing Questionnaire item's

Dimension/item	<i>M</i>	<i>SD</i>	<i>S</i>	<i>K</i>	<i>r.it</i>	α -i
<i>Obstruction (α= .800)</i>						
1. I spent a lot of time thinking about the past or the future, instead of being involved in activities that are important to me	2.29	2.20	.488	-1.188	.670	.733
2. I was on "autopilot" most of the time	1.95	2.17	.714	-.957	.629	.746
6. Difficult thoughts, emotions, and memories got in the way of what I really wanted to do	2.20	2.21	.517	-1.212	.567	.766
8. When things didn't happen according to plan, I gave up easily	2.10	2.17	.602	-1.079	.450	.801
10. I felt that I was simply going through the motions mechanically rather than focusing on what is really important to me	2.51	2.26	.291	-1.311	.597	.756
<i>Progress (α= .746)</i>						
3. I worked toward my goals even if I was not motivated	3.46	2.24	-.334	-1.354	.401	.718
4. I felt proud of how I live my life	3.82	2.03	-.594	-.880	.623	.660
5. I made progress in the areas of my life that matter most to	3.87	2.03	-.594	-.914	.654	.647
7. I got better at being the kind of person I want to be	4.30	1.89	-1.012	-.045	.604	.670
9. I felt that I have a purpose in life	4.12	2.08	-.800	-.706	.546	.688

Notes: *S*= Skewness; *K*= Kurtosis; *r.it*= item-total correlation; α -i= alpha if item is deleted.

With regard to gender, statistically significant differences were found in both the Obstruction dimension ($t= 4.093$; $p < .001$; Cohen's $d= .244$), with women ($M= 2.35$) obtaining a higher mean compared to men ($M= 1.96$), as in the Progress dimension ($t= 2.856$; $p < .001$; Cohen's $d= .174$) also with women ($M= 4.01$) obtaining a higher mean compared to men ($M= 3.76$). No significant differences were found according to the participants region of residence.

Subsequently, the relationships between the two dimensions of the VQ, age, educational level and the self-perception of social class were analyzed through Pearson's and Spearman's correlations depending on the case (Table 4). Age is negatively related to the Obstruction dimension, but not to Progress dimension. Likewise, significant but low relationships are observed with the educational level and the self-perception of social class. In all cases, the relationships had a small effect size (medium strength $\geq .30$) (Cohen, 1988).

Table 3
Confirmatory factor analysis of the Valuing Questionnaire

Model	$\chi^2(df)$	S-B $\chi^2(df)$	Δ S-B $\chi^2(df)$	CFI	IFI
Unidimensional	253.67 (65)	205.52 (65)	3.16	.87	.87
Two correlated dimensions	144.26 (64)	113.47 (64)	1.77	.95	.95

Note: Adequate values: Δ S-B $\chi^2(df) \leq 5$; CFI, IFI $\geq .95$; RMSEA $\leq .08$.

Tabla 4
Relations between the two dimensions of the Valuing Questionnaire and demographics variables

Variables	<i>M</i>	<i>SD</i>	Range	α	ω	1	2	3	4	5
1. VQ Obstruction	2.21	1.64	1 – 5	.800	.812	(.72)	-.437**	-.265**	-.167**	-.201**
2. VQ Progress	3.92	1.45	1 – 5	.746	.775		(.63)	.079**	.103**	.179**
3. Age	49,90	15,59	18 - 80					-	.095**	.211**
4. Educational level	2.96	.90	1 – 4						-	.311**
5. Social class	2.50	.73	1 – 4							-

Notes: Adequate criteria for both indicators (α and ω) are $\geq .70$; Average variance extracted (AVE) in the diagonal in brackets. ** $p < .01$.

Next, the relationships between the dimensions of the VQ with CFQ, AAQ2 and SWLS were analyzed (Table 5). The results indicated that all the variables were significantly related (Table 5) with different effect size (medium strength $\geq .30$; greater than typical strength $\geq .50$; and much greater than typical strength $\geq .70$) according Cohen's (1988) criteria. Higher scores in VQ Progress correlate positively with higher scores in satisfaction with Life (SWLS) and negatively with higher scores in cognitive fusion (CFQ) and avoidance (AAQ II) as we have hypothesized (H2). Also, higher scores in VQ Obstruction correlate positively with cognitive fusion (CFQ) and avoidance (AAQ II) and negatively with higher scores in satisfaction with life (SWLS) (as we have hypothesized in H3).

Table 5
Correlations between the dimensions of the Valuing Questionnaire (VQ) and the Cognitive Fusion Questionnaire and Acceptance and Action Questionnaire and Satisfaction with Life Scale and internal consistency of the VQ

Variables	<i>M</i>	<i>SD</i>	Range	1	2	3	4	5
1. VQ Obstruction	2.21	1.64	1 - 5	.804	-.437**	.630**	.698**	-.458**
2. VQ Progress	3.92	1.45	1 - 5		.747	-.341**	-.411**	.508**
3. CFQ	3.46	1.36	1 - 5			.824	.767**	-.388**
4. AAQ-II	2.89	1.36	1 - 5				.782	-.488**
6. SWLS	3.39	.97	1 - 5					.840

Notes: VQ= Valuing Questionnaire; CFQ= Cognitive Fusion Questionnaire; AAQ-II= Acceptance and Action Questionnaire-II; SWLS= Satisfaction with Life Scale. Cronbach's alfa in the diagonal. ** $p < .01$.

Finally, the predictive validity of the VQ was tested with the SWLS and other variables (Table 6). The Avoidance (AAQ-II) and VQ Obstruction variables are the main predictors of life satisfaction. The contribution of Cognitive Fusion (CFQ) is not significant, while VQ Progress is very small (Cohen, 1988). These results allow us to corroborate the hypothesis 4 of our study.

Tabla 6
Regression analysis to Satisfaction with Life (SWLS)

Regression model	ΔR^2	β
Step 1	.259***	
AAQ-II		-.509
Step 2	.001	
AAQ-II		-.477
CFQ		-.041
Step 3	.114***	
AAQ-II		-.291
CFQ		-.004
VQ Progress		.101
VQ Obstruction		-.346
Total R^2	.374***	

Notes: AAQ-II= Acceptance and Action Questionnaire-II; CFQ= Cognitive Fusion Questionnaire; VQ= Valuing Questionnaire. *** $p < .001$.

Discussion

The results of the present study indicates that the Argentine version of the VQ presents adequate psychometric properties, including adequate internal consistency and significant associations with relevant variables in the expected directions. Specifically, the progress factor showed positive relationships with life satisfaction and negative relationships with cognitive fusion and experiential avoidance, while the obstruction factor showed positive relationships with cognitive fusion and experiential avoidance and negative relationships with life satisfaction. The further analysis of this relations can be found below in this discussion. In line with the original study (Smout et al., 2014), the two-factor model was confirmed. The same bifactor structure was found in the psychometric studies of adaptations of the scale to different countries and populations studied to date (Carvalho et al., 2018; Kibbey et al., 2020; Nonahal et al., 2020; Rickardsson et al., 2019; Ruiz et al, 2022, Satomi Doi et al., 2017). The present study thus provides further evidence of the bifactor structure of VQ across different languages and populations.

Regarding the relationships between the two factors of the VQ and participants gender, statistically significant differences were found in both factors with the mean for women being higher than for men. Differences found between male and female participants in the results deserve further consideration as the previous studies did

not report these differences. It is possible than women show more self-awareness than men on where they are or not in contact with values. There is a need for more research to clarify this subject. Regarding the relationship between VQ Obstruction scores and age, educational level and self-perception of social class, it is necessary to continue exploring this relationship in future research because these relations did not show up in previous studies. It is plausible that obstacles to values are less perceived at a younger age. Also, it may be possible that people with lower education and less economic income are more into getting their basic needs met and don't count with the time for considering their values and goals in the long run.

About the relations found between the VQ and relevant variables in the study, the Argentine version of the VQ showed significant correlations with life satisfaction in the expected directions, both for the obstruction factor and for the progress factor. Similar results were found in the original study (Smout et al., 2014) and in the Spanish and Colombian validation studies (Ruiz et al., 2022). From an ACT perspective, and consistent with research findings on this relationship (Gloster et al., 2017; Serowik et al., 2018), living according to personal values is a precursor to psychological well-being and life satisfaction (Hayes et al., 2011), as this phenomenon accounts for greater contact with intrinsic action reinforcers.

The Argentine version of the VQ, also showed significant relationships with experiential avoidance in the expected directions, both for the obstruction factor and for the progress factor. Similar results were found in the original study (Smout et al., 2014) and in the Spanish and Colombian version (Ruiz et al., 2022). Since experiential avoidance consists of unwillingness to be in contact with difficult internal experiences and attempts to suppress such experiences (Hayes et al., 2011), research has demonstrated the mediating role of experiential avoidance in varied clinical problems (e.g., Costa & Pinto-Gouveia, 2011; Fledderus et al., 2010; Leonard et al., 2020; Litwin et al., 2017; Moroz & Dunkley, 2019; Reddy et al., 2006; Santanello & Gardner, 2007) whereby it has been postulated to possess a central effect on psychological distress (Bardeen & Fergus, 2016) and has been proposed, along with cognitive fusion as a whole, as the cornerstone of psychopathology. Experiential avoidance within the ACT model possesses a central role in the disengagement from a life lived in accordance with personal values (Hayes et al., 2011), which is why it was expected that higher scores on VQ Obstruction would be associated with higher scores on Experiential Avoidance. In turn, this may explain the association between higher VQ Progress scores with lower Experiential Avoidance scores.

The higher positive correlation of the VQ Obstruction with the CFQ and the negative correlation of the VQ Progress with the same variable deserves special attention since this relationship was not explored in the original study. However, in the study conducted in Colombia (Ruiz et al., 2022) it was explored, and similar results were found. Cognitive fusion describes the phenomenon whereby behaviors are mostly guided by the content of thoughts instead of being guided by more useful contingencies. Cognitive fusion reduces the behavioral repertoire, decreasing movement toward goals that are valuable to the person (Blackledge, 2007). Thus, it

was expected to find significant relationships in the expected directions between VQ Obstruction and Progress and Cognitive Fusion.

Although the aims of the study have been achieved, there are several limitations that should be taken into account. It is important to mention that 60.9% of the participants were female so that men and other gender identities could be considered under-represented. Regarding the variables studied, this study did not include clinical variables, such as anxiety and depression, which could be an important addition for future research. Also, it would be interesting for future research to explore the VQ performance in a clinical sample, in order to know its discriminant power (between clinical and non-clinical samples), as there is evidence of this in the original research (Smout et al., 2014).

In conclusion, this study provides a valid measure of living according to personal values (VQ) that can be used for Argentinian population, which could be administered in both clinical and research setting.

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