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Factorial Structure of the Quality of Life
Questionnaire in a Spanish sample of visually disabled
adults

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Summary

This study presents a new Spanish version of the *Quality of Life Questionnaire (QOL.Q)* (Schalock and Keith, 1993 a) for use with adults with visual disability. The QoL.Q was originally developed in English and designed to measure 4 dimensions of Quality of Life in populations with mental retardation. The purpose of this paper is to study some psychometric properties of the Spanish translation for a population with visual disabilities. Confirmatory Factor Analysis (CFA) has been used to check whether the factorial structure of the Spanish version of the questionnaire was similar to the original version. The questionnaire was applied to a sample of 364 adults with visual disability. As the results indicated that the data was not appropriate for the aforementioned structure, an Exploratory Factor Analysis was carried out with the aim of determining which factorial structure would be most appropriate. As a result, the Spanish version of the questionnaire consists of 24 items assigned to three subscales: Competence (8), Satisfaction (10) and Self-determination (6). A new Confirmatory Factor Analysis (CFA) permitted the testing of the appropriate fit between the responses and the new proposed model. Psychometric analyses of these subscales seem to indicate good measurement properties of the new scale.

Introduction

In the area of social sciences and health, there are many disciplines and fields where growing interest exists in evaluating to what extent programs, services and treatments improve the quality of life of individuals. For this purpose, knowing the perceived well-being of service users is of great relevance, not only in determining the dimensions of the

concept of quality of life (Verdugo & Sabeh, 2002), but also when evaluating the effects and importance of treatments and services (Drummond, 1990). The perspective of the service user in relation to their quality of life has become one of the main touchstones of professional practice and services. This is particularly evident in the field of rehabilitation, where improving the quality of life is the final aim of the intervention (Pain & Dunn, 1998).

In the area of disability, the concept of quality of life was adopted in the 80's as it captured a new and changing vision of persons with disability, allowed for a common language between disciplines, and was consistent with the "Quality revolution" (Schalock & Verdugo, 2002). In addition, the improvement in quality of life becomes a shared goal of many programs aimed at persons with disability, acquiring great importance in outcome analyses of such programs.

Visual deficiencies can negatively affect an individual's quality of life when they limit learning opportunities and independence. As a result, measuring and promoting the quality of life of users of educational, social, health and/or rehabilitative programs and services becomes a priority. As Legge indicates (1990), people with visual disability may have difficulties carrying out certain daily activities such as reading, driving, going for a walk, watching television, practicing specific sports and hobbies, or they may have difficulties relating socially. The author also points out that visual disability may in a wider sense have longer-term effects in various ways on an individual's quality of life (e.g. in relation to access to education, information, professional training, mobility, and independence). It would therefore be necessary to measure the impact of these limitations on the quality of life of a person and evaluate services in terms of to what degree they promote quality of life.

Research on the quality of life of persons with visual disability is scarce. Ferguson, Buxton and Ferris (1990), in their overview of clinical literature on the treatment of persons with visual disability, found that the majority of clinical interventions restricted the measure of success to traditional indicators such as sharpness and field of vision. As these authors indicate, this is rather surprising as the main impact of interventions designed to improve vision has more to do with quality of life than an increase in longevity. The authors recommend that alongside traditional clinical indicators, more global measures of the quality of life should be used in such a way that relationships between quality of life and different visual parameters can be established.

Although there is little published research, great concern exists in the field, especially in relation to measuring quality of life. Drummond (1990) describes the concern of many experts with respect to the design and adaptation of efficient instruments able to evaluate the quality of life of persons with visual disability, underlining the need to adapt general scales in order to compare the quality of life of persons with visual problems to other individuals. In this sense, Bernth-Petersen (1990) concluded that the use of indicators of quality of life offers the following advantages: (1) it gives detailed information on the consequences of visual disability; it considers other wider areas, not only visual, which may benefit treatment; (2) it produces more global data than traditional ophthalmologic measurements, in such a way that the information can be comprehended more easily by laymen and so improve communication and decision-making; and finally, (3) it creates common approaches which allow for adequate planning of eye treatment.

Some research has focused on relating the quality of life of persons with visual disability to other concepts such as employment and lifestyle (DeLaGarza & Erin, 1993), the perception of health (Alonso, Prieto, Ruigómez & Antó, 1993) and the impact of

education services (Giangreco, Cloninger, Mueller, Yuan, & Ashworth, 1991). Other research has centered on measuring life satisfaction (Davis, Lovie-Kitchin & Thompson, 1995; Needham & De LeAune, 1976). Measurement strategies employed have been of a quantitative nature, with different types of questionnaires being used to measure quality of life, with the exception of Giangreco, Cloninger, Mueller, Yuan, and Ashworth (1991), who employed a qualitative methodology.

Alongside the scarcity of available studies, the one-dimensional understanding of the concept is notable, contrary to current multidimensional conceptualizations of quality of life (Schalock, 1990, 1996, 1997). Furthermore, adapted or validated instruments for evaluating the quality of life of persons with visual disability are lacking. These instruments should have adequate psychometric properties, which would allow researchers and professionals to evaluate services and programs.

As a result of this lack of specific instruments for evaluating the quality of life of persons with visual disabilities, a decision was made to translate Schalock and Keith's (1993 a) *Quality of Life Questionnaire (QOL.Q)* into Spanish. The *QOL.Q* is a measure originally developed to measure the quality of life of a person with mental retardation. However, the importance, for different disability groups, of dimensions included in the scale was confirmed by the thorough literature review recently presented by Schalock and Verdugo (2002). In addition, although the questionnaire was not designed for persons with visual disability, De la Garza and Erin (1993) showed that the item contents could be appropriate for such a population. Certainly, visual loss has been shown to significantly affect activities of daily life, to reduce functional status, social interaction, mobility and independence (Lee, 2001). For example, Giangreco, Cloninger, Mueller, Yuan, & Ashworth (1991) highlighted among their conclusions the importance of a stable, safe and comfortable home, the need

for developing a productive and socially valued activity, health-care and the development of networks and social links as quality of life indicators for deaf-blind people. On the other hand, Alonso, Prieto, Ruigómez and Antó (1993) after assessing the perceived quality of life in a sample of deaf-blind people compared to the general population, found significant differences in areas such as social integration and autonomy. It can be said, then, that the variables measured by the questionnaire included in the present study are relevant issues in the assessment of people with visual impairments. The QOL.Q has 40 items, each of which relates to an aspect of a person's life. An interviewer who asks the interviewee each of the 40 items administers the QOL.Q. Three possible responses are provided for the person to select the most appropriate to their life situation. Response scores go from 1 (low) to 3 (high). The QOL.Q was designed to allow the computation of four subscales, which assess the following dimensions:

- 1) Personal life satisfaction: measures the overall personal life satisfaction when the person compares him or herself with others, through questions such as: "How much fun and enjoyment do you get out of your life?", "How satisfied are you with your current home or living arrangement?", "Do you have more or fewer problems than other people?".
- 2) Competence and productivity: measures a person's satisfaction with educational and professional issues through questions as: "How well did your educational or training program prepare you for what you are doing now?", "How do people treat you on your job?", "How satisfied are you with the benefits you receive at the workplace?"
- 3) Empowerment and independence: measures the feelings of empowerment and independence, and decisions making in the living environment through questions like: "Who decides how to spend your money?", "When can friends visit your

home?”, “How much control do you have over things you do every day, like going to bed, eating, and what you do for fun?”.

- 4) Social belonging and community integration, which measures aspects related to participation in community activities, organizations, and social relationships. Questions included in this factor are: “How satisfied are you with the clubs or organizations (including church or other religious activities) to which you belong?”, “Do you have friends over to visit your home?”, “How many times per week do you talk to (or associate with) your neighbors, either in the yard or at home?”

The model postulates that these factors are interrelated. Each subscale contains ten questions.

The objectives of this study were to: (i) check whether the factorial structure of the Spanish version of the *QOL.Q* was similar to the original version and, where the data did not fit the hypothesized structure, (ii) determine the most appropriate factorial structure.

Method

Participants

The questionnaire was given to a sample of 364 adults with visual disability, randomly selected from a census of persons with visual disability in the *Community of Castilla y León* (Spain). The Spanish National Organization of the Blind (ONCE) supplied the data. Of the 364 participants involved, 192 were male (53%) and 172 female (47%). Ages ranged between 20 and 85 years.

Materials

In order to translate the questionnaire into Spanish, Brislin's methodology (1976) was used and the *International Tests Commission Guidelines on Tests Adaptations* (Hambleton, 1994; Tanzer & Sim, 1999; Van de Vyjver & Hambleton, 1996) were also taken into account. Two bilingual psychologists translated the questionnaire from English to Spanish, after which two English speakers translated the Spanish back into English. Once this process was finished, two English language teachers (one Spanish, the other English) checked for the translations and reached agreement on discrepancies found by consulting other researchers. Spanish cultural peculiarities were taken into account during the whole translation process. The items from the original version and from the Spanish version are included in Appendix A and Appendix B.

The answers were codified in accordance with the norms established by the authors of the original version (Schalock & Keith, 1993 b). These norms specify that:

1. Items 13 to 20 of the questionnaire should not be applied to individuals not working at the time when the interview is carried out and should be codified as value 1.
2. Omissions should be codified with the average of answers given by the individual in the corresponding subscale.
3. Individuals with 4 or more omissions in any of the scales should be excluded.

The score for each subscale is obtained by summing the values of the items.

Procedure

The questionnaire was applied to all participants through a one-to-one interview carried out by one of the authors of the study. To this end, the participants were called to

the provincial headquarters of the ONCE. Those who were unable to attend were visited at home in order that the interviews could be carried out.

Data Analysis

The proposed objectives and procedure are based on a correlational methodology: we analyze Pearson bivariate correlations among the items from Confirmatory Factor Analysis (CFA) and Exploratory Factor Analysis (EFA). This type of correlation is generally accepted and is widely used (Aluja & Blanch, 2002). Initially, a Confirmatory Factor Analysis on the data of the Spanish version of the *QOL.Q* was performed to verify the hypotheses associated with the first objective. The CFA was carried out with Lisrel VII (Joreskog & Sörbom, 1989).

As was observed earlier, the model underlying the structure of the *QOL.Q* questionnaire suggests that this instrument be structured in four dimensions called: 1) *Satisfaction*, 2) *Competence/Productivity*, 3) *Self-determination/Independence*, and 4) *Social belonging/Community integration*.

The *QOL.Q* questionnaire was constructed in such a way that the first 10 items evaluate the dimension of *Satisfaction*, items 11 to 20 *Competence/Productivity*, items 21 to 30 *Self-determination/Independence* and items 31 to 40 the area of *Social belonging/Community integration*.

The model assumed that each item presents levels of saturation above zero in only one of the factors mentioned. It is also postulated that the factors are correlated. The procedure for estimating parameters was that of Maximum Likelihood (ML). To check the model fitting, we focus on the goodness of fit index (GFI), the adjusted goodness of fit index (AGFI) and the root mean square error residual index (RMSR). The RMSR index

describes the discrepancy between the observed correlations and the model-reproduced correlations. Usually, values greater than 0.05 indicate poor fit (Byrne, 1989). The GFI index reveals the relative amount of variance and covariance jointly explained by the model. The AGFI index takes into account the number of degrees of freedom in the model, in order to adjust for the bias resulting from model complexity. Both indices range from zero to 1.00, with a value close to 1.00 indicating a good fit. According to Hu and Bentler (1995), values less than 0.80 indicate poor fit.

The exploratory factor analysis (Principal Components analysis with Varimax rotation) was carried out with StatView 5.0 (SAS, 1998).

Results

The statistics of fit of the four factor model were as follows: GFI = 0.77, AGFI = 0.74 and RMSR = 0.10. Thus, it is clear that the data do not fit the model. As a result, an Exploratory Principal Components analysis was carried out to determine the factorial structure of the questionnaire. The Bartlett's test of sphericity allows the rejection of the hypothesis that all the correlations, tested simultaneously, are not different from 0 ($\chi^2 = 8265.67$; $df = 819$; $p < .0001$). The first objective was to define a minimum number of dimensions in order to reveal the co-variations between items. *Scree Test* criteria were taken into account (Pedhazur & Pedhazur, 1991). The eigenvalues, which correspond to the successive components defined, are represented in Figure 1. The results suggest that three dimensions would be enough to explain 44% of the variance of the correlation matrix between items.

Insert Figure 1

According with this criterion, we performed a Varimax rotation of the first three components. The Table 1 shows the factor structure matrix.

Insert Table 1

To obtain measures as pure as possible (Comrey, 1973), we selected the items with moderate or high loads in *one* of the factors ($a \geq |0.40|$), and low saturation in the remained factors ($a < |0.20|$). To check the plausibility of this solution, we performed a Confirmatory Factor Analysis using Lisrel VII (Joreskog & Sörbom, 1989). The statistics of fit of this model were as follows: GFI = 0.88, AGFI = 0.86 and RMSR = 0.05.

According with the usual criteria (Byrne, 1989; Hu & Bentler, 1995; Pedhazur & Pedhazur, 1991), we concluded that the fit of this parsimonious solution is acceptable.

As a result, the Spanish version of the questionnaire (QOLQ-S) is composed of 24 items assigned to three scales: *Competence* (8), *Satisfaction* (10) and *Self-determination* (6). It is interesting to note that correlations between factors converge with theoretical assumptions: a moderate relation between constructs evaluated (Figure 2).

Insert Figure 2

A number of descriptive statistics appear in Table 2. As can be observed, and despite the small number of items, the scales' coefficients of internal consistency are high.

Insert Table 2

Discussion

The present study was aimed at developing a measure with adequate psychometric characteristics to evaluate the quality of life of persons with visual disability. To this end, Schalock and Keith's (1993) *QOL.Q* was translated and applied to a sample of Spanish adults with visual disability. The results of Confirmatory Factor Analysis indicate that the data obtained did not fit with the four-dimensional model of the initial questionnaire. The evaluation of the most appropriate solution by Exploratory Factor Analysis shows that three factors are enough to explain the co-variation among items. The factorial structure obtained differs in certain respects from the original questionnaire. The new questionnaire is made up of 24 items assigned to three subscales: 1) *Competence/Productivity* (8 items), 2) *Satisfaction* (10 items), and 3) *Self-determination* (6 items).

However, this three-factor structure seems appropriate from a theoretical point of view, and does not differ greatly from the original one. Thus, Factor 1 is similar to that proposed by the authors of the questionnaire with only two items failing to load on the original *QOL.Q* factor, *competence/productivity*.

In Factor 2, seven items taken from the *Satisfaction* dimension of the original questionnaire presented heavy weighting, as did some items assigned to other scales in the original questionnaire, specifically two items from the *empowerment/independence* original subscale, and one item from the *Social belonging/Community integration* dimension.

Finally, five items from the original *empowerment/independence* subscale, showed high saturations in Factor 3, along with one item from the original *community integration* subscale.

It is worth mentioning that the last factor in the original questionnaire, *Community integration*, was removed from the scale, given that high but not sufficient loadings were found in more than one factor. These results are probably due to cultural differences between the two populations in how social integration is manifested. The contents of some of the items, which have disappeared from the scale, refer to belonging to associations and civic organizations and the frequency with which the respondent visits friends at home or participates in parties, plays or dances in homes or in the community. It is likely that in Spain this tradition of belonging to organizations does not exist to the same extent as it does in the United States and, as a consequence, these items may not be relevant to evaluate the degree of community integration. Items related to the frequency with which people get together with friends in their friends' homes or their own are of a similar nature. In Spain, social relations usually take place in public places (cinemas, pubs, etc.), more than in private. Neither is the frequency with which a person talks to or interacts with their neighbors (the subject of item 34) very relevant to our culture, as it may happen so often in our social environment that no discrimination of degrees of integration/participation is possible.

In relation to items that showed high saturation in other dimensions, one of them (40) is included in *Satisfaction*. It would be logical to assume that this item is closely related to other items on the same scale, which require similar evaluations.

Similarly, it would also seem reasonable that item 38, which concentrates on the existence of opportunities to go date someone or get married, is more related to self-perception of the ability to choose and decide, as with other items of the subscale *Self-determination*, than with degrees of *Community integration*.

Regarding the subscale *Competence/Productivity* (Factor 1), there are small differences compared with the original. We would mention item 11 which, rather than ask for information related to work, focus on obtaining an evaluation of the training program and thus, was removed from the scale.

The subscale of *Self-determination/Independence* (Factor 3) also preserves five of the items from the original subscale, whilst two of the latter (29 and 30) were moved to the *Satisfaction* subscale. It would appear safe to assume that, in relation to the other items in this dimension which always ask for an opinion on possibilities of choice or decision in relation to a variety of specific aspects of life, these two are slightly different: one (30) asks again for a general impression of life, and the other (29) makes reference to aspects related to social interactions in the home ("Does anyone live with you who on occasions has hurt you, has upset you...?"), both questions quite similar to the content of other items in the scale of *Satisfaction* in which they are included. It is also worth pointing out that in studies carried out by Kober (2000) and Rapley and Lobley (1995), the item 29 obtains high saturation in the same scale. Similarly, item 38 was originally in the community/integration subscale, and is closely related to self-perception of choice, in

accordance with other items in this subscale, so their loading on this factor is considered rational.

Finally, Factor 2 preserves seven items of the original *satisfaction* subscale, with only items 1, 6, and 8 failing to load in it. Along with these seven items, another 3 items, originally belonging to other subscales, load in it. As has been shown these loadings are also considered rational.

Summarizing, the data from the sample of persons with visual disability indicates that there are three factors related to quality of life. The first of them, *Competence/Productivity*, evaluates the perception of a person with respect to their ability, skills, development of competence, and economic, personal and social advantages related to the area of work. A second factor, called *Satisfaction*, measures aspects related to overall or global satisfaction with life, comparing oneself to others, and satisfaction with specific aspects of life especially related to social relationships (family, friends). A third factor, *Self-determination/Independence*, evaluates the perception of an individual of their opportunities to choose and decide different aspects of their life related to the carrying out of daily activities, using money, possessions, friends, and in relation to decision-taking in general.

It is worth highlighting that, congruently to what Schalock and Keith's model postulated, the study has obtained moderate and positive correlations between factors. This result should be taken into account when providing services. Specifically, we can see a positive correlation between the factors *Satisfaction* and *Competence*, indicating that services which promote the perception of competence will also operate on an increase in the perception of satisfaction, the latter being the final goal of services directed at persons with disability. This is even more the case in relation to the perception of self-

determination, a factor that presents a high correlation with the factor of satisfaction. That is to say, those persons who perceive they have greater control over and ability to make decisions in relation to their lives are more satisfied. Consequently, programs and services directed at persons with visual disability should be designed to provide appropriate support and develop programs that encourage the self-determination of a person.

Finally we can argue that the scales obtained are highly reliable, as the indices of internal consistency would indicate. The hypothesis of the new model is appropriate for use with visual disability and we can conclude that the scale that has arisen presents psychometric characteristics that are adequate for this population.

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APPENDIX A: ORIGINAL QoL.Q (Schalock and Keith, 1993a)**SATISFACTION**

1. Overall, would you say that life:	Brings out the best in you	Treats you like every-body else	Doesn't give you a chance
2. How much fun and enjoyment do you get out of life?	Lots	Some	Not much
3. Compared to others, are you better off, about the same, or less well off?	Better	About the same	Worse
4. Are most the things that happen to you	Rewarding	Acceptable	Disappointing
5. How satisfied are you with your current home or living arrangement?	Very satisfied	Somewhat satisfied	Unsatisfied or very unsatisfied
6. Do you have more or fewer problems than other people?	Fewer problems than other people	The same number of problems as others	More problems than others
7. How many times per month do you feel lonely?	Seldom, never more than once or twice	Occasionally, at least 5 or 6 times a month	Frequently, at least once or twice a week
8. Do you ever feel out of place in social situations?	Seldom or never	Sometimes	Usually or always
9. How successful do you think you are, compared to others	Probably more successful than the average person	About as successful as the average person	Less successful than the average person
10. What about your family members?, Do they make you feel:	An important part of the family	Sometimes a part of the family	Like an outsider
COMPETENCE/PRODUCTIVITY			
11. How well did your educational or training program prepare you for what you are doing now?	Very well	Somewhat	Not at all well
12. Do you feel your job or other daily activity is worthwhile and relevant to either yourself or others	Yes, definitely	Probably	I'm not sure, or definitely not
13. How good do you feel you are at your job?	Very good and others tell me I am good	I'm good, but no one tells me	I'm having trouble on my job
14. How do people treat you on your job?	The same as all other employees	Somewhat differently than other employees	Very differently
15. How satisfied are you with the skills and experience you have gained or are gaining from your job?	Very satisfied	Somewhat satisfied	Not satisfied
16. Are you learning skills that will help you get a different or better job? What are these skills?	Yes, definitely (one or more skills mentioned)	Am not sure, maybe (vague, general skills mentioned)	No, job provides no opportunity for learning new skills

17. Do you feel you receive fair pay for your work?	Yes, definitely	Sometimes	No, I do not feel I am paid enough
18. Does your job provide you with enough money to buy the things you want?	Yes, I can generally buy those reasonable things I want	I have to wait to buy some items or not buy them at all	No, definitely do not earn enough to buy what I need
19. How satisfied are you with the benefits you receive at the workplace?	Very satisfied	Somewhat satisfied	Not satisfied
20. How closely supervised are you on your job?	Supervisor is present only when I need him or her	Supervisor is frequently present whether or not I need him or her	Supervisor is constantly on the job and looking over my work
EMPOWERMENT/INDEPENDENCE			
21. How did you decide to do the job or other daily activities you do now?	I chose it because of pay, benefits, or interest	Only thing available or that I could find	Someone else decided for me
22. Who decides how you spend your money?	I do	I do, with assistance from others	Someone else decides
23. How do you use health care facilities (doctor, dentist, etc.)?	Almost always on my own	Usually accompanied by someone, or someone else has made the appointment	Never on my own
24. How much control do you have over things you do every day, like going to bed, eating, and what you do for fun?	Complete	Some	Little
25. When can friends visit your home?	As often as I like or fairly often	Any day, as long as someone else approves or is there	Only on certain days
26. Do you have a key to your home?	Yes, I have a key and use it as I wish	Yes, I have a key but it only unlocks certain areas	No
27. May you have a pet if you want?	Yes, definitely	Probably yes, but would need to ask	No
28. Do you have a guardian or conservator?	No, I am responsible for myself	Yes, limited guardian or conservator	Yes, I have a full guardian
29. Are there people living with you who sometimes hurt you, pester you, scare you, or make you angry?	No	Yes, and those problems occur once a month or once a week	Yes, and those problems occur every day or more than once a day
30. Overall, would you say that your life is:	Free	Somewhat planned for you	Cannot usually do what you want
SOCIAL BELONGING/COMMUNITY INTEGRATION			

31. How many civic organizations (including church or other religious activities) do you belong to?	2-3	1 only	None
32. How satisfied are you with the clubs or organizations (including church or other religious activities) to which you belong?	Very satisfied	Somewhat satisfied	Unsatisfied or very unsatisfied
33. Do you worry about what people expect of you?	Sometimes, but not all the time	Seldom	Never or all the time
34. How many times per week do you talk to (or associate with) your neighbors, either in the yard or in their home?	3-4 per month	1-2 per month	Less than 1 per month
35. Do you have friends over to visit your home?	Fairly often	Sometimes	Rarely or never
36. How often do you attend recreational activities (homes, parties, dances, concerts, plays) in your community?	3-4 per month	1-2 per month	Less than 1 per month
37. Do you participate actively in those recreational activities?	Usually, most of the time	Frequently, about half the time	Seldom or never
38. What about opportunities for dating or married?	I am married, or have the opportunity to date anyone I choose	I have limited opportunities to date or marry	I have no opportunity to date or marry
39. How do your neighbors treat you?	Very good or good (invite you to activities, coffee, etc)	Fair (say hello, visit, etc.)	Bad or very bad (avoid you, bother you, etc.)
40. Overall, would you say that your life is:	Very worthwhile	Okay	Useless

APPENDIX B: SPANISH TRANSLATION OF THE QoL-Q**SATISFACCIÓN**

1. En general diría que la vida	Saca lo mejor de usted	Le trata como a todo el mundo	No le da ninguna oportunidad
2. ¿Cuánto se divierte y entretiene en su vida?	Mucho	Algo	No mucho
3. Comparado con otros, ¿está mejor, igual o peor?	Mejor	Igual	Peor
4. La mayoría de las cosas que le ocurren son	Gratificantes	Aceptables	Decepcionantes
5. ¿Está satisfecho con su actual hogar o lugar donde vive?	Muy satisfecho	Algo satisfecho	Insatisfecho o muy insatisfecho
6. ¿Tiene más o menos problemas que otras personas?	Menos	Igual que otras personas	Más problemas que otras personas
7. ¿Cuántas veces al mes se siente solo?	Muy pocas, nunca más de una o dos veces	De vez en cuando, al menos 5 o 6 veces al mes	A menudo, al menos una o dos veces por semana
8. ¿Se siente alguna vez fuera de lugar en situaciones sociales?	Casi nunca o nunca	Algunas veces	A menudo o siempre
9. En comparación con otras personas, ¿cuánto éxito cree que tiene?	Probablemente más que cualquier persona	Más o menos el mismo éxito que todo el mundo	Menos éxito que otras personas.
10. Y sus familiares, ¿le hacen sentir?	Una parte importante de la familia	Algunas veces parte de la familia	Como un extraño

**COMPETENCIA/
PRODUCTIVIDAD**

11. ¿En qué medida su programa educativo o de formación le preparó para lo que está haciendo ahora?	Muy bien	Algo	Mal
12. ¿Piensa que su trabajo u otras actividades diarias son importantes y valen la pena para usted o los otros? Nota: Si una persona está desempleada, no se realizarán las preguntas de la 13-20. La puntuación para estos ítems será de 1	Sí, sin duda	Probablemente	No estoy seguro o seguro que no
13. En mi trabajo soy	Muy bueno, las otras personas me dicen que soy bueno	Soy bueno pero nadie me lo dice	Estoy teniendo problemas en mi trabajo
14. ¿Cómo le trata la gente en su trabajo?	Igual que al resto de empleados	De modo un poco diferente que a otros empleados	De modo muy diferente
15. ¿Está satisfecho con las habilidades y experiencia que ha adquirido o está adquiriendo en su trabajo?	Muy satisfecho	Algo satisfecho	Nada satisfecho
16. ¿Está aprendiendo cosas que le puedan permitir obtener un trabajo diferente o mejor?, ¿Cuáles son esas habilidades?	Sí, sin duda (Menciona una o más habilidades)	No estoy seguro, puede ser (menciona habilidades generales)	No, el trabajo no proporciona oportunidades para aprender nuevas habilidades
17. ¿Cree que recibe un sueldo justo por su trabajo?	Sí, sin duda	A veces	No, creo que no me pagan lo suficiente

18. ¿Le proporciona su trabajo el dinero suficiente para comprar las cosas que usted quiere?	Si, suelo poder comprar cosas normales que quiero	Tengo que esperar para comprar algunas cosas o no comprarlas	No, no gano lo suficiente para comprar lo que necesito
19. ¿Está usted satisfecho con las ventajas que obtiene en su trabajo?	Muy satisfecho	Algo satisfecho	Nada satisfecho
20. ¿Cuánta supervisión tiene usted en su trabajo?	El supervisor está presente sólo cuando yo le necesito	El supervisor suele estar presente le necesite o no	El supervisor está presente constantemente y controla mi trabajo
AUTODETERMINACIÓN/INDEPENDENCIA			
21. ¿Cómo decidió hacer el trabajo u otras actividades diarias que hace ahora?	Lo elegí yo por el sueldo, ventajas o intereses	Era el único disponible o que yo podía conseguir	Otra persona decidió por mí
22. ¿Quién decide cómo gasta usted su dinero?	Lo decido yo	Lo decido yo con la ayuda de otros	Otra persona lo decide
23. ¿Cómo utiliza los servicios de salud (médico, dentista, etc)?	Casi siempre yo solo	Normalmente acompañado por alguien, u otra persona pide la cita	Nunca solo
24. ¿Decide usted sobre las cosas que hace cada día, como irse a la cama, comer, y lo que hace para divertirse?	Sí, sin duda	A veces	Pocas veces
25. ¿Cuándo pueden visitarle en casa sus amigos?	Tan a menudo como yo quiero o bastante frecuencia	Cualquier día siempre que alguien más lo apruebe o esté allí	Sólo algunos días
26. ¿Tiene usted la llave de su casa?	Sí, tengo la llave y la uso como quiero	Sí, tengo una llave pero sólo abre algunas puertas	No
27. ¿Puede tener una mascota si quiere?	Sí, sin duda	Probablemente sí pero tendría que pedir permiso	No
28. ¿Tiene usted un tutor o guardián?	No, soy responsable de mí mismo	Sí, para algunas cosas	Sí, tengo tutor para todo
29. ¿Vive con usted gente que algunas veces le hace daño, le molesta, le asusta o hace enfadarse?	No	Sí, y esos problemas ocurren una vez al mes o una vez a la semana	Sí, y esos problemas ocurren cada día o más de una vez al día
30. En general, usted diría que su vida es:	Como usted quiere que sea	Alguien se la planifica en algunas cosas	Normalmente no puede hacer lo que quiere

PERTENENCIA SOCIAL/INTEGRACIÓN EN LA COMUNIDAD			
31. ¿A cuántos clubs o asociaciones de la comunidad pertenece (incluyendo la iglesia u otras actividades religiosas)?	2-3	Sólo 1	Ninguno
32. ¿Está usted satisfecho con los clubs o asociaciones a los que usted pertenece? (Incluida la iglesia u otras actividades religiosas)?	Muy satisfecho	Algo satisfecho	Insatisfecho o muy insatisfecho
33. ¿Se preocupa por lo que la gente espera de usted?	Algunas veces, pero no siempre	A veces	Nunca o siempre
34. ¿Cuántas veces a la semana habla (o se relaciona) con sus vecinos, bien en el patio o calle o en sus casas?	3-4 veces por semana	1-2 veces por semana	Nunca o siempre
35. ¿Suelen venir amigos a su casa para visitarle?	Sí, bastante menudo	a Algunas veces	Pocas veces o nunca
36. ¿Cuántas veces participa en actividades recreativas (en hogares, fiestas, bailes, conciertos, juegos) de su comunidad?	3-4 veces al mes	1-2 veces al mes	Menos de 1 vez al mes
37. ¿Participa usted de forma activa en dichas actividades de ocio?	A menudo, casi todo el tiempo	A veces, la mitad del tiempo	Casi nunca o nunca
38. ¿Qué posibilidades tiene para salir con alguien o contraer matrimonio?	Estoy casado o tengo la oportunidad de salir con quien elija	Tengo pocas oportunidades para casarme o salir con alguien	No tengo oportunidades para casarme o salir con alguien
39. ¿Cómo le tratan sus vecinos?	Muy bien o bien (le invitan a actividades, café, etc)	Amables (dicen hola, visitan, etc.)	Mal o muy mal (le evitan, le molestan)
40. En general, diría que su vida es:	Vale la pena	Está bien	No vale para nada

Table 1. Rotated Factor Matrix (Varimax).

Item	Factor 1	Factor 2	Factor 3
1	.07	.62	-.23
2	-.01	.59	.12
3	.08	.52	-.09
4	.06	.63	-.13
5	-.06	.40	.03
6	.00	.45	-.38
7	.03	.60	-.07
8	-.06	.38	.03
9	.06	.52	-.03
10	.02	.45	-.05
11	-.15	.37	.16
12	.13	.27	.31
13	.86	.00	.02
14	.91	-.05	.02
15	.89	.01	.02
16	.63	.08	-.04
17	.87	.00	.02
18	.91	-.02	.03
19	.89	-.01	.01
20	.88	-.07	.07
21	-.43	.20	.39
22	.08	-.02	.60
23	.14	-.03	.38
24	.05	-.02	.71
25	-.03	.12	.41
26	.04	-.16	.76
27	-.01	.00	.59
28	-.05	-.24	.68
29	.00	.40	.01
30	.14	.49	.02
31	-.11	.27	.26
32	-.12	.47	.27
33	.09	.11	.14
34	-.09	.24	.18
35	-.11	.34	.23
36	-.02	.38	.34
37	.00	.36	.38
38	-.01	.11	.46
39	-.17	.38	.07
40	.03	.55	.05

Table 2. Mean, standard deviation and coefficients of internal consistency

Scale	Mean	Standard Deviation	Alpha
Competence	11.40	5.62	0.97
Satisfaction	22.88	4.35	0.80
Self-determination	15.46	3.02	0.79

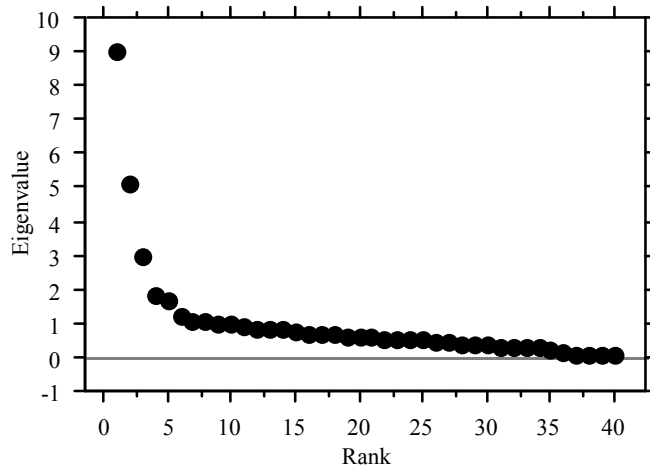


Figure 1. Scree Plot

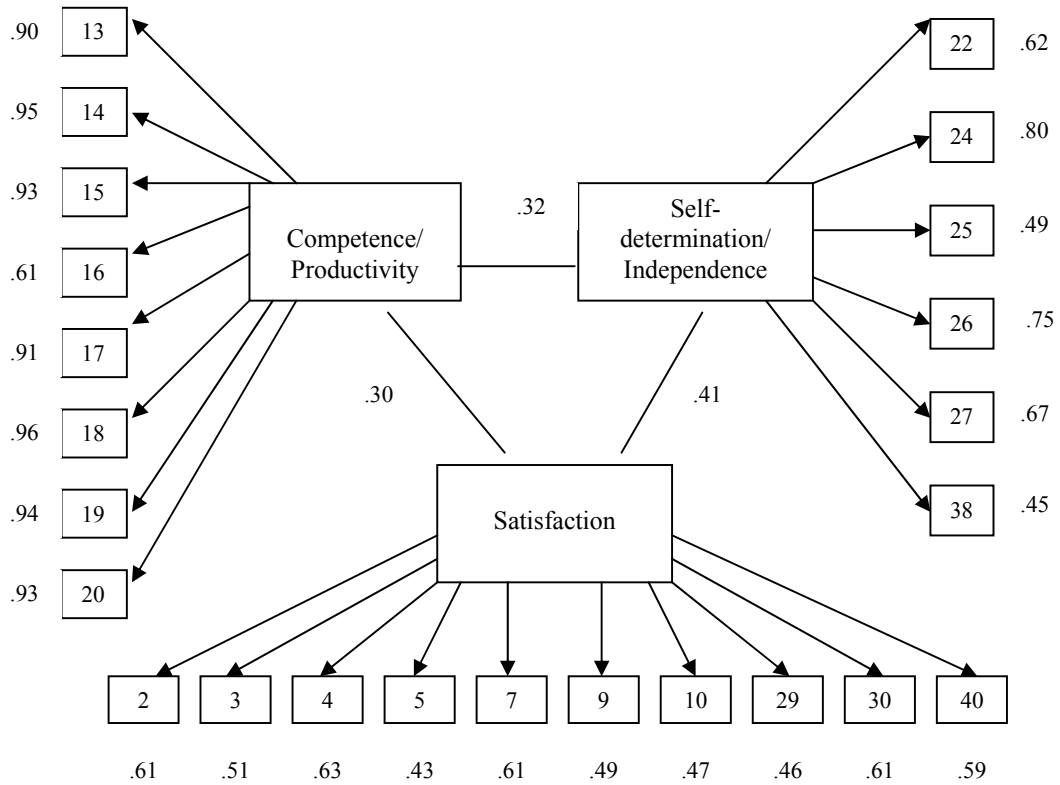


Figure 2. Standardized regression coefficients for each item of QOLQ-S and correlations between factors.