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Introduction

Quality of Life (QoL) is a subjective concept with various dimensions: Physical, mental, social, spiritual⁽¹⁾.

It has been studied by different scientific areas, aggregating individuals who present the same diagnosis, to allow comparison of the impact of different programs⁽²⁾.

“Drug users QoL in a substitution program with methadone Scale”

21 items - two subscales, “family and economic situation” (11 items) and “personal satisfaction” (10 items)⁽¹⁾. Range Score: 21-84 (Higher values better QoL).

Previous scale reliability - Validation study for the Portuguese population in 2005 (n=236) was obtained a Alfa of Cronbach of 0.88 and in 2011 (n=308) 0.93⁽³⁾. But no factorial analysis were known.

Key Words

Quality of Life; Substance related disorders; Assessment; Nursing; Methadone

Objective

To determine a scale factorial structure and its psychometric properties.

Material e Methods

Methodological study

Setting: Three public substance outpatients’ units in Lisbon, Portugal.

Accessible population= 1183 patients in the methadone programs.

Sample= 180 heroin addicts with more than 18 years, randomly selected.

Participants – 180 drug users, aging an average of 41 years (sd=7.58 [24-69]), mostly men (73.3%), single (55.6%) and having children’s (52.8%), 6 years completed in the school (35%), unemployed (48,3%), no work qualifications (33,9%), the main income was from social and family support (36,1%).

Using substances (71,2%), stay in methadone program mean 52,8 mouths [1-201];sd=43,31; methadone dose 74mg [2-255];sd=41,16.

Data analyses - Exploratory factorial analysis based on the Principal Components Method (PCM) has been used for construct validity. Varimax factors orthogonal rotations were used in all emerged solutions in each analysis.

Number of factors to be retained was by their own initial values (eigenvalue) ≥ 1 , and when each factor explained at least 5% of the variance ⁽³⁾.

Statistical significance assumed if $p < 0.05$

Results

Stages of factor analysis

Reliability analysis with 21 items was found $\alpha = 0.89$, all communalities > 0.40 , KMO=0.875 ($p < 0.001$) and 58.42% of explained variance by 5 factors.

When extracted the item 18 (item-total correlation 0.16), all items assumed a item-total correlation > 0.20 ; alpha increased ($\alpha = 0.90$) and KMO increased to 0.877 maintaining the stability of Bartlett test; communalities maintained above 0.40; total variance explained by the 5 factors increased to 60.4%, but 5 factors diverged from theoretical matrix and 10 items weighed in more than one factor.

Through confirmatory analysis (excluding item 18) forcing for the 2 original scale factors. We verified that 4 items had commonalities < 0.30 . The total variance explained after the spin fell to 43.11% and 4 items weighed in more than one factor.

We explored with 3 factors, KMO maintained in 0.877, Bartlett test remains within criteria, total variance explained after de rotation stayed 49.6%. Although this structure presents 3 items weigh in more than one factor, justifies its maintenance by underlying theoretical model. Alpha is higher than the initial ($\alpha = 0.90$). The extraction of any item will weaken scale consistency.

Renamed factors:

1 - Personal satisfaction and self-care (8 items) (38.5% explained variance);

2 - Social Family situation (8 items) (7.4%);

3 - Socio professional and economic situation (4 items) (6.5%).

Subscales Internal consistency: factor 1 $\alpha = 0.85$; factor 2 $\alpha = 0.79$; factor 3 $\alpha = 0.72$.

Correlation between them 0.513-0.674; $p < 0.001$

The subscales-total scale correlation 0,741-0,897; $p < 0,001$

Table 1 – Factor Loads and Explained Variance in QoL Scale with 3 factors

| Items | factor loads | | |
|--|---------------|--------------|--------------|
| | 1 | 2 | 3 |
| QoL3. Passou a preocupar-se com a sua recuperação* | ,762 | | |
| QoL1. O tratamento tornou-o uma pessoa diferente | ,693 | | |
| QoL7. Alterou a sua maneira de ver a vida* | ,655 | | |
| QoL10. Passou a ter novos interesses na vida* | ,644 | | |
| QoL19. Acredita no programa de metadona | ,624 | | |
| QoL16. Passou a sentir-se confiante consigo próprio* | ,582 | | |
| QoL5. Passou a conseguir estabelecer metas na sua vida | ,577 | | ,402 |
| QoL21. Passou a cuidar de si próprio | ,503 | ,364 | |
| QoL15. Passou a ter o apoio da família | | ,775 | |
| QoL11. Passou a partilhar com a família/amigos os seus problemas | | ,613 | |
| QoL6. Passo a sentir que as outras pessoas o/a respeitam mais | ,390 | ,593 | |
| QoL9. Sente-se mais apoiado | ,431 | ,508 | |
| QoL2. Mudou o relacionamento com a família | ,450 | ,507 | |
| QoL12. Passou a ter a sua vida organizada | ,322 | ,501 | ,471 |
| QoL20. Passou a sentir-se mais satisfeito sexualmente* | | ,493 | |
| QoL4. Procurou fazer novos amigos que não estejam ligados à droga* | | ,429 | |
| QoL14. O trabalho ajudou a ter uma vida organizada* | | | ,805 |
| QoL17. Passou a gostar de ir trabalhar* | | | ,734 |
| QoL8. Passou a conseguir trazer dinheiro para casa sem o gastar | | | ,654 |
| QoL13. Passou a conseguir gerir o dinheiro | | ,320 | ,537 |
| Explained variance | 35,70% | 7,40% | 6,48% |

Removed Items – QoL18 - Started to rely on religion

Total Scale Outcome: between 0-80

QoL Outcome: Mean 63,03 [23-80]; SD=11,38 (78,79%)

Conclusion

Factorial analysis supported by theoretical matrix, with 3 Factors: 1- Personal satisfaction and self-care (8 items); 2 - Social Family situation (8 items); 3 - Socio professional and economic situation (4 items), allows personal dimension and self-care evaluation in QoL.

Strong internal consistency of the Scale ($\alpha = 0.90$).

The scale is a good tool for QoL Assessment in Outpatient drug addicts. In methadone programs, patients reveal good QoL.



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