

Parkinson's Disease Impulsive-Compulsive Disorders Questionnaire – Current Short (QUIP-CS) – Translation and validation of content of Portuguese Version

Parkinson's Disease Impulsive-Compulsive Disorders Questionnaire – Current Short (QUIP-CS) – Tradução e validação de conteúdo em português do Questionário para Avaliação de Distúrbios Impulsivo-Compulsivos na Doença de Parkinson

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ABSTRACT

Objective: Parkinson's disease (PD) management is usually successfully reached with proper pharmacological treatment. However, PD patients can manifest neuropsychiatric symptoms secondary to medical therapy, including impulse control disorders (ICD), presenting as pathological gambling, hypersexuality, compulsive buying, drinking or eating disorders. We translated and validated the Portuguese version of the gold-standard questionnaire Parkinson's Disease Impulsive-Compulsive Disorders Questionnaire, or (QUIP) for identifying ICDs in PD patients. **Methods:** Translation, back translation and submission to instrument developer was performed, that approved its new version comparing it to his original, validated version, with no loss of it's original properties. Then, the Portuguese version was administered to 30 PD patients. They also were asked to rate from 1 to 5 the level of comprehensibility of the questions. **Results:** The average level of comprehension was 4.06 ± 0.69 DP, considering 3 or more as acceptable. No patient has answered 1 or 2. **Conclusion:** Our results on Portuguese version of QUIP-CS show that QUIP-CS translated and corrected version was easily understood and easily self-applied.

Keywords

Parkinson's disease (PD), impulse-control disorders (ICD), Portuguese validation questionnaire for PD ICD.

RESUMO

Objetivo: O manejo da doença de Parkinson (DP) é usualmente alcançado com sucesso com o tratamento farmacológico apropriado. Entretanto, os pacientes com DP podem manifestar sintomas neuropsiquiátricos secundários à terapêutica, como a síndrome de descon-

Received on
1/5/2017
Approved on
1/7/2017

DOI: 10.1590/0047-2085000000158

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Palavras-chave

Doença de Parkinson (DP), síndrome de descontrole de impulsos (SDI), validação para português de questionário para DP e SDI.

trole dos impulsos (SDI), que se apresenta como o jogar patológico, a hipersexualidade, o comprar, beber ou comer compulsivos. Traduzimos e validamos a versão em português do questionário padrão-ouro para identificação de transtornos impulsivo-compulsivos na DP (QUIP-CS) para identificar nesses pacientes a presença de SDI. **Métodos:** Foram realizadas a tradução, a retrotradução e a submissão do instrumento ao desenvolvedor deste, que aprovou a nova versão comparando esta à sua, que já está validada, sem a perda das suas propriedades originais. Após, a versão em português foi administrada a 30 pacientes com o diagnóstico de DP. Eles também foram solicitados a classificar o nível de compreensibilidade das questões, graduando-as de 1 a 5. **Resultados:** O nível médio de compreensão foi $4,06 \pm 0,69$ DP, considerando-se 3 ou mais como aceitável. Nenhum paciente respondeu 1 ou 2. **Conclusão:** Os nossos resultados para a versão em português da QUIP-CS mostraram que essa versão, traduzida e corrigida, foi facilmente compreendida e aplicada pelos próprios pacientes.

INTRODUCTION

Parkinson's disease (PD) patients can manifest several neuropsychiatric symptoms¹ that are in many cases related to treatments used to control PD². Impulse control disorders (ICD), which can present as pathological gambling, hypersexuality, compulsive buying, drinking, or eating disorders, deserve special consideration because they can be devastating to patients and their families³⁻⁵. Therefore it is extremely important to identify the subjects who have developed these conditions in order to treat them properly and avoid devastating complications and/or consequences.

ICDs are a group of psychiatric disorders and their essential feature is the failure to resist an impulse, drive, or temptation to perform an act harmful to either the self or others⁶. Reported occurrences in PD patients include compulsive gambling, buying, sexual, and eating behaviors⁷. Because no comprehensive assessment instruments for impulse control disorders existed, Weintraub *et al.*⁸ created and validated a scale to identify PD patients that developed ICDs called the QUIP – Questionnaire for Impulsive-Compulsive Disorders in Parkinson's Disease. They also validated its psychometric properties. QUIP is a self-administered screening questionnaire for ICDs and other compulsive behaviors in patients with PD. The authors developed a shorter version, the QUIP-CS (current symptoms, short form), composed of 13 questions. They recommend the use of this version as follows:

"The median completion time for the QUIP (30 questions total) was 5 minutes. We estimate that the median completion time for the QUIP-S (13 questions total) is 3 minutes. Although the shortened version was not formally tested, we do recommend it for routine use as the specific questions and overall structure of the instrument were not modified in any way. Clinicians or clinical

researchers who want the additional information provided by the full questionnaire may choose to administer this version"⁸.

The term current means that it can be applied at the any moment during evaluation of a patient suffering from PD⁸.

With the ever increasing spread of information, the need to adapt already validated scales to other languages and cultures is also growing⁹⁻¹¹. Being that most questionnaires are developed in English-speaking countries¹², they must be adapted not only to new languages but also culturally adapted to maintain the content validity of the instrument at the conceptual level across different cultures¹³.

The aim of this study was to translate and validate the Portuguese content of the Portuguese version of the gold-standard scale for identifying PD ICDs, the Parkinson's Disease Impulsive-Compulsive Disorders Questionnaire – Current Short (QUIP-CS)⁶.

METHODS

The process used for translation and adaptation of the Portuguese version was used by Bernstein¹⁴ and Grassi-Oliveira¹⁵. Because QUIP and its shortened version have already been validated, we intend to validate only the Portuguese version of the latter (QUIP-CS), in order to use it for Brazilian and other Portuguese-speaking PD patients.

The project of validation was approved by HCPA's Institutional Review Board (IRB) and was registered at Plataforma Brasil, a Brazilian agency that regulates research involving humans subjects as well as clinical trials.

The initial step was translation to Portuguese by a professional translator, used by one of authors (GV who applied it in previous study)¹⁶. The second step was showing this first translation to 5 PD neurologist specialists in Movement Disorders. They were asked to state if the

questions were comprehensible and, if not, provide the reason and to give suggested modifications. Four of them found it comprehensible, with only the fifth suggesting minor modifications. This new Portuguese revised version was then back translated to English by two independent native English speakers. They were both asked to compare each of their versions and check for differences. Subsequently, they contacted each other and produced a final back translated version. This was then sent to the original author (Daniel Weintraub), who approved this new version comparing it to his original validated version, with no loss of original properties.

Finally, after signing the informed consent form, the Portuguese corrected version was applied to 65 random

patients undergoing Dopaminergic Agonist (DA) therapy at a PD ambulatory center at HCPA. Then 30 of these patients were asked to answer a number of questions that would determine their level of comprehension of the QUIP-CS questions. These 30 subjects were chosen according to guidelines previously mentioned⁹. The final Portuguese revised version is presented in Figure 1. The original QUIP-CS scale can be found in the original manuscript⁸.

The evaluation of the scale's comprehension was rated as: 1) No understanding at all; 2) Little understanding; 3) Rough understanding; 4) Good comprehension, but some doubts; and 5) Perfect understanding with no doubts. Values from 3 to 5 were considered good responses. No patient answered 1 or 2.

Relatado por: _____ Paciente _____ Informante* _____ Paciente e informante

Nome do paciente: _____

Data: _____

* Se as informações forem fornecidas por um terceiro: responda às questões com base no seu conhecimento sobre o paciente.

Responda a TODAS AS PERGUNTAS com base nos COMPORTAMENTOS EXIBIDOS DURANTE UM EPISÓDIO DE DP COM DURAÇÃO MÍNIMA DE 4 SEMANAS

A. JOGOS DE AZAR

1. Você ou outras pessoas acham que você tem (teve) algum problema com participação excessiva em jogos de azar (tais como cassinos, apostas pela internet, loterias raspadinhas, pôquer, caça-níqueis)? () Sim () Não
2. Você tem (teve) alguma dificuldade em controlar seu comportamento com relação a jogos de azar (como, por exemplo, jogar cada vez mais com o passar do tempo ou ter dificuldades em reduzir ou parar)? () Sim () Não

B. SEXO

1. Você ou outras pessoas acham que você tem (teve) algum problema relacionado com seu comportamento sexual (tal como exigir sexo de seus parceiros, promiscuidade, prostituição, mudança da orientação sexual, masturbação, atividades sexuais pela internet ou telefone ou pornografia)? () Sim () Não
2. Você pensa (ou já pensou) demais sobre comportamentos sexuais (tais como não conseguir tirar o assunto da cabeça ou se sentir culpado)? () Sim () Não

C. COMPRAS

1. Você ou outras pessoas acham que você tem (teve) algum problema relacionado com compras excessivas (tal como comprar um produto em excesso ou comprar coisas que não precisa ou não usa)? () Sim () Não
2. Você se envolve (se envolveu) em atividades especificamente com o propósito de continuar com o comportamento relacionado com compras (tais como esconder o que está (estava) fazendo, mentir, esconder os produtos, pedir empréstimos, acumular débitos, roubar ou se envolver em atividades ilegais)? () Sim () Não

D. ALIMENTAÇÃO

1. Você ou outras pessoas acham que você tem (teve) algum problema relacionado com comer demais (tais como passar a comer quantidades maiores ou tipos diferentes de alimentos, mais rapidamente que o normal, até se sentir desconfortavelmente cheio ou comer quando não está com fome)? () Sim () Não
2. Você tem (teve) o desejo incontrolável de exercitar algum hábito alimentar que você acredita (acreditava) ser excessivo ou que possa (pudesse) causar incômodo (incluindo inquietação, irritabilidade, sempre que não consegue realizar o desejo)? () Sim () Não

E. OUTROS COMPORTAMENTOS

Você ou outras pessoas acham que você passa (passava) tempo demais...

1. em tarefas específicas, passatempos ou outras atividades organizadas (tais como escrever, pintar, cuidar do jardim, consertar ou desmontar objetos, fazer coleções, usar o computador, trabalhar em projetos etc.)? () Sim () Não
2. repetindo certas atividades motoras simples (tais como limpar, arrumar, examinar objetos, classificá-los, organizá-los etc.)? () Sim () Não
3. andando ou dirigindo sem um destino ou objetivo específico? () Sim () Não

F. USO DE MEDICAMENTOS

1. Você ou outras pessoas (incluindo o seu médico) acham que você constantemente toma (tomava) seu remédio para a doença de Parkinson em quantidade excessiva? () Sim () Não
2. Você tem (teve) alguma dificuldade em controlar o seu uso dos medicamentos para Parkinson (tal como sentir um desejo intenso de tomar mais remédio ou sentir-se mal-humorado ou desmotivado ao tomar uma dosagem mais baixa)? () Sim () Não

Figure 1. Questionário para avaliação de distúrbios impulsivo-compulsivos na doença de Parkinson (em qualquer momento durante um curto episódio de DP) – *Parkinson's Disease Impulsive-Compulsive Disorders Questionnaire – Current Short (QUIP-CS)*

Statistical analysis

Statistical analysis was performed using SPSS version 17.0. Categorical values were described using absolute frequency and percent of relative frequency. Quantitative measures were described when they had symmetrical distribution, by mean and standard deviation.

RESULTS

Demographic data are presented in Table 1.

Table 1. Demographic data (n = 65 patients)

	Mean	SD
Age (years)	67.1	10.7
Min 40 years/max 90 years		
Gender		
Male (n = 35)	53.8%	
Female (n = 30)	43.2%	
Time of PD* (years)	13.48	5.62
Time of DA** using (years)	12.8	5.7
Hoehn & Yahr (H & Y)	2.62	0.94
min 2/max 4		
Civil status		
Single	12.5%	
Married	56.3%	
Widowed	31.3%	
Scholarship		
Elementary school any level	45.5%	
Elementary school complete	9.1%	
High school any level	46.4%	
Any other than above	0%	
Family income		
1 to 5 minimum wage	45.5%	
5 to 10 minimum wage	9.1%	
> 10 minimum wage	46.4%	
Psychiatric diagnosis*** made before PD* diagnosis –		
Yes (total)	29.4%	
Anxiety	10.1%	
Depression	7%	
Both (a & d)	7%	
Unknown	5.3%	
None	70.6%	
Smoking		
Yes	40%	
No	60%	
Illicit drugs use	0	
Family history of psychiatric disease (anxiety, depression, bipolar disorder)***		
Yes	38.9%	
No	61.1%	
Use of DA* more than 6 months		
Yes	96.6%	
No	3.4%	
MMSE+	25.86	4.68
Min 6/max 30		
MoCA++	21.83	6.58
min 3/max 30		

DA = dopaminergic agonist; ** PD = Parkinson's disease; *** Psychiatric diagnosis before PD collected on medical records.

+ MMSE = Mini Mental State Examination.

++ MoCA = Montreal Cognitive Assessment.

Frequency of ICD found in individual questions is presented in Table 2.

Table 2. Frequency of ICD (n = 65 patients)

Question	Number of patients with positive answers (by item)
A1	1
A2	0
B1	0
B2	5
C1	7
C2	5
D1	9
D2	5
E1	6
E2	8
E3	0
F1	0
F2	0

The primary impulse control disorders identified were compulsive eating (13.84%), repetition of a certain motor activity (12.3%), compulsive buying (10.76%), doing specific tasks (9.2%), followed by the desire to eat and buy (7.69% each).

The average level of comprehension of the questions was 4.06 ± 0.69 DP (n = 30 patients), considering three or more as acceptable. No patient answered 1 or 2.

DISCUSSION

As ICDs are often side-effects of PD treatments using dopamine replacement therapy, the patients affected must be quickly identified so they can be properly managed. The QUIP-CS is available for free, easy to access, fast, and a scientifically-tested method to do just this.

Information on these conditions are rare in Brazilian patients¹⁷. Thus, we believe it is underreported in Brazilian literature, due to the fact that there have not been any valid instruments to identify ICDs in affected individuals. The availability of this questionnaire should improve the assessment of this population.

Our results using the newly developed Portuguese version of QUIP-CS show that the QUIP-CS in its translated version was easily understood by Portuguese native speakers.

Our process measured content validity¹³ not testing for psychometric properties. As the psychometric properties of the QUIP were already tested as part of the validation process in English, we did not repeat the process here.

However, we do intend to translate and validate the content of this Portuguese version of the QUIP-CS in future research.

We also plan to disseminate research on this particular subject using this validated version, to reach a better understanding of our Portuguese-speaking population, considering regional and local differences.

A limitation of our study is that it does not test for psychometric properties, as previously discussed, as it was outside of the scope of this paper.

INDIVIDUAL CONTRIBUTIONS

Débora Mascella Krieger and **Sabrina Vilanova Cardoso** – Participated in patients' recruitment and assessments.

Débora Mascella Krieger, Sabrina Vilanova Cardoso, Wolnei Caumo, Guilherme Valença, Daniel Weintraub and **Carlos Roberto de Mello Rieder** – Drafted the manuscript.

Débora Mascella Krieger, Wolnei Caumo, Daniel Weintraub, Carlos Roberto de Mello Rieder – Participated in the design of the study.

Débora Mascella Krieger and **Sabrina Vilanova Cardoso** – Performed the statistical analysis.

Débora Mascella Krieger, Sabrina Vilanova Cardoso, Wolnei Caumo, Guilherme Valença, Daniel Weintraub and **Carlos Roberto de Mello Riede** – Conceived of the study, and participated in its design and coordination and helped to draft the manuscript.

All authors read and approved the final manuscript.

CONFLICTS OF INTEREST

The authors report no conflicts of interest.

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