

Wives of pathological gamblers: personality traits, depressive symptoms and social adjustment

Esposas de jogadores patológicos: traços de personalidade, sintomas depressivos e ajustamento social

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Abstract

Objective: Wives of pathological gamblers tend to endure long marriages despite financial and emotional burden. Difficulties in social adjustment, personality disorders, and comorbidity with psychiatric disorders are pointed as reasons for remaining on such overwhelming relationships. The goal was to examine the social adjustment, personality and negative emotions of wives of pathological gamblers. **Method:** The sample consisted of 25 wives of pathological gamblers, mean age 40.6, SD = 9.1 from a Gambling Outpatient Unit and at GAM-ANON, and 25 wives of non-gamblers, mean age 40.8, SD = 9.1, who answered advertisements placed at the Universidade de São Paulo hospital and medical school complex. They were selected in order to approximately match demographic characteristics of the wives of pathological gamblers. Subjects were assessed by the Social Adjustment Scale, Temperament and Character Inventory, Beck Depression Inventory and State-Trait Anxiety Inventory. **Results:** Three variables remained in the final Multiple Logistic Regression model. Wives of pathological gamblers presented greater dissatisfaction with their marital bond, and higher scores on Reward Dependence and Persistence temperament factors. Both wives of pathological gamblers and wives of non-gamblers presented well-structured character factors excluding personality disorders. **Conclusion:** This personality profile may explain wives of pathological gamblers emotional resilience and their marriage longevity. Co-dependence and other labels previously used to describe them may work as a double edged sword, legitimating wives of pathological gamblers problems, while stigmatizing them as inapt and needy.

Descriptors: Pathological gambling; Spouses; Social adjustment; Personality; Depression

Resumo

Objetivo: Esposas de jogadores patológicos tendem a permanecer casadas por muitos anos, apesar das dificuldades financeiras e emocionais. Dificuldades de ajustamento social, transtornos de personalidade, e comorbidades com transtornos psiquiátricos são apontados como razões para permanecerem nesses relacionamentos tão opressivos. O objetivo foi examinar o ajustamento social, a personalidade e as emoções negativas das esposas de jogadores patológicos. **Método:** A amostra foi constituída por 25 esposas de jogadores patológicos, média de idade 40,6 anos (DP = 9,1), do Ambulatório de Jogadores Patológicos e do Jog-Anon, e 25 esposas de não jogadores, média de idade 40,8 anos (DP = 9,1), que responderam a anúncios colocados no complexo do hospital da faculdade de medicina da Universidade de São Paulo. Foram selecionadas aquelas que apresentavam características demográficas próximas às das esposas de jogadores patológicos. Os sujeitos foram avaliados por meio da Escala de Ajustamento Social, do Inventário de Temperamento e Caráter, do Inventário de Depressão de Beck, e do Inventário de Ansiedade Traço-Estado. **Resultados:** Três variáveis permaneceram no modelo final da Análise de Regressão Logística Múltipla. Esposas de jogadores patológicos apresentaram maior insatisfação no relacionamento marital e escores mais altos nos fatores de temperamento Dependência de Gratificação e Persistência. Ambas as esposas de jogadores patológicos e de não jogadores apresentaram fatores de caráter bem estruturados, excluindo transtornos de personalidade. **Conclusão:** Este perfil de personalidade pode explicar a resiliência emocional das esposas de jogadores patológicos e a longa duração de seus casamentos. Codependência e outros rótulos utilizados anteriormente para descrevê-las podem, de um lado, legitimar seus problemas e, de outro, estigmatizá-las como inaptas e carentes.

Descritores: Jogo patológico; Cônjuge; Ajustamento social; Personalidade; Depressão

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Introduction

Pathological gambling (PG) severely affects both gamblers and their families. Bland et al. on a household survey described an association of PG with suicide (13.3%), convictions (26.7%), spouse (23.3%) and child (16.7%) abuse.¹ In gambling families, reports of financial hardship, parental unemployment, embezzlement, stealing, strained family ties, and lack of leisure are common.¹⁻³ A Swedish study found that 33 out of 40 pathological gamblers had at least one family member affected by gambling problems, main marital problems and children's rearing neglect.⁴

The socio-demographic profiles of pathological gamblers from several studies show high divorce rates.⁵ The National Gambling Impact Study conducted by the University of Chicago estimated a 53.5% of divorce lifetime rate for pathological gamblers; the same rate for non-gamblers was 18.2%.⁶ However, women who remain married to pathological gamblers tend to endure a long marital life. Tepperman describes an overall mean of 17.4 years of marriage.⁷ Such persistence on a relationship that is obviously disadvantageous is attributed to a psychological dependence on the partner, the so-called co-dependence.^{8,9} Co-dependence is generally conceptualized as an enduring dysfunctional relationship pattern established by acquaintanceship with an addicted spouse or parent.^{10,11} The problem with this concept is that it does not separate spouses from offspring and as they hold different relationships to the addicted family member, the outcome for each is probably different. The offspring of pathological gamblers often reports feelings of anger, depression, sadness, and "pervasive loss".^{12,13} The most frequent complaints of spouses are emotional distance from the partner, verbal aggressions, defensiveness, family distress, and financial concerns.^{14,15}

Cermak was the first author to conceptualize co-dependence as a personality disorder proposing a set of diagnostic criteria compatible with the DSM-III-R Axis I definitions.^{16,17} According to him, co-dependence is a personality disorder complementary to the narcissistic personality, defined by an inability to focus on one's own needs, denial and unrealistic relationship to willpower, partly overlapping with the diagnosis of Dependent Personality disorder. However, the relationship to narcissism seems complex. According to Farmer, although co-dependent subjects regard themselves as needy and overly deferent to others, their belief in willpower and unrealistic expectations about their relationship reveal a need to control, and failure to regard the other as a separate being, which he called a subtle form of narcissistic entitlement.¹⁸

In order to demonstrate the relationship between personality and co-dependence, Savron et al. used Cloninger's Tridimensional Personality Questionnaire (TPQ) to compare 28 wives of pathological gamblers to 28 control women.¹⁹ Wives of gamblers scored higher than controls on Harm Avoidance and Reward Dependence, scoring higher than their husbands on Reward Dependence and lower on Novelty Seeking. Likewise, the relationship between personality, negative affectivity, and co-dependence has been investigated for substance dependence. Zetterlind and Berglund failed to find an association between Cermak's concept of co-dependence and TPQ factors.²⁰ Conversely, Gotham and Sher found that co-dependence was associated to the neuroticism dimension of personality, and anxiety and depression psychopathology, underscoring the role of negative affectivity.²¹

Despite some empirical evidences of its validity, the concept of co-dependence needs refinement. On a cautionary statement, Irwin proposes to investigate the general profile of relatives of pathological gamblers, rather than prematurely endorsing generalizing theories.²²

Indeed, current models of co-dependence focus too much on individual vulnerabilities disregarding the probable dysfunctional consequences of living with a dependent relative. For instance, Hudson compared wives of substance abusers to women from the community using the Social Adjustment Scale self-report form and found that the overall adjustment score was compromised, as well as all sub-scales ranging from the more proximal domains of family to the more distal domains of work, and leisure.²³ Likewise, living with a pathological gambler must incur on the same pervasive compromise. Nonetheless, as far as we know no structured testing of social adjustment for wives of pathological gamblers (WPG) has been reported so far. Moreover, one study reported that after a period of gambling abstinence of two years or more, pathological gambling husbands improved their view of family life, whereas their wives were still discontented about it. Such finding shows the need for developing specific interventions for WPG tailored after their own characteristics.²⁴

The goal of this study was to investigate if WPG would differ from wives of non-gambling husbands (WNG) regarding social adjustment, personality structure, depression and anxiety.

Method

1. Sample

It was a convenience sample consecutively enrolling wives of gamblers in treatment at the Gambling Outpatient Unit of the Institute of Psychiatry of the Universidade de São Paulo or wives of participants of Gamblers Anonymous (GA) meetings who sought help to deal with their husbands' gambling problems. Help seeking was spontaneous and no recruitment technique or exclusion criteria were applied. Twenty-five wives were invited, none refused to participate; twelve had their husbands enrolled in the outpatient program, and thirteen came from Family and Friends of GA (GAM-ANON – a self-help group set to support family members of pathological gamblers). Married control subjects were recruited through advertisements placed at the hospital where the study was conducted, and at a college located in the same neighborhood. Women matching WPG for age and years of education (in order to avoid bias from different demographic background) were assessed. A clinical interview excluded those married to regular gamblers, alcohol and other substance abusers, except tobacco smoking. Twenty-five wives of non-gamblers (WNG) were selected. Participation was on a voluntary basis and no incentive was used to facilitate recruitment.

The study protocol was approved by the ethics committee of the Clinical Hospital of Medical School of the Universidade de São Paulo. Work with human subjects reported here complies with the guiding policies and principles for experimental procedures of the World Medical Association Declaration of Helsinki.²⁵

2. Measures

Demographic variables included age, years of marriage, ethnic group, religious affiliation, number of children, mean years of formal education, work status, and estimated economic status (based on the sum of the number of rooms, bathrooms, and a list of household appliances divided by the number of house inhabitants²⁶).

Social Adjustment Scale (SAS)²⁷ is a self-report 42-item scale, measuring either affective or instrumental performance over the past two weeks in seven major areas of functioning: work (as a worker, housewife, or student); social and leisure activities; relationship with extended family; marital role as a spouse; parental role; membership in the family unit and economic adequacy. The overall score is

obtained by summing up the scores of all the items actually assessed and dividing that sum by the total number of items. Each item is scored in a five-point scale, from which the role area means are obtained, the higher score being indicative of greater impairment (1 = normal; 5 = severe maladjustment).

The Temperament and Character Inventory (TCI)²⁸ consists of 240 self-report, true-false items, assessing four temperament dimensions: Novelty Seeking (NS), Harm Avoidance (HA), Reward Dependence (RD) and Persistence (P); and three character dimensions: Self-Directedness (SD), Cooperativeness (C), and Self-Transcendence (ST). NS evaluates sensitivity to new experiences, curiosity, impulsiveness, and disorderliness. HA evaluates pessimism, carefulness, and fear of physical and moral injuries. RD evaluates need for social contact, attachment, dependence, and sentimentality. P evaluates the stability of behavior even in the absence of positive or negative cueing. SD evaluates the ability to set personal goals and keep oneself directed to them; self-acceptance and the perception of oneself as resourceful, and disciplined. Self-directedness has been more directly related to maladjusted personality, scores below 20 predict a 90% likelihood of personality disorder.²⁹ C evaluates the ability to be tolerant towards people, compassionate, and empathic. ST evaluates a sense of being part of a broader reality, in touch with other beings on a spiritual level. It is also a measure of idealism as opposed to conventionalism.

Negative Affectivity was assessed by the Beck Depression Inventory (BDI),³⁰ a self-report 21-item scale with responses ranging from 0 (= least) to 3 (= most), that assesses depressive symptoms in the past seven days. Likewise, anxiety was assessed by the state scale from the State-Trait Anxiety Inventory (STAI),³¹ a self-report 20-item questionnaire, with responses ranging from 0 (= Not at all) to 4 (= Very Much), that assess anxiety symptoms at the present moment.

3. Statistical analysis

A univariate comparison between WPG and WNG was performed. The samples were compared for social adequacy, personality profile

and emotional distress. Additional comparisons were run to check the homogeneity of the WPG sample, regarding the recruitment origin (whether WPG coming from the Gambling Outpatient Unit had a different demographic background from those coming from GAM-ANOM, or not). Chi-square tests with continuity correction for 2x2 tables and Mann-Whitney's U tests were used respectively for categorical and continuous data. All variables approaching significance at $p < 0.10$ were selected for a Multiple Logistic Regression. The selected variables entered the model all together, having the diagnosis group (1 = WPG; 0 = WNG) as the dependent variable. Then a backward procedure was performed, by which the least significant variables were withdrawn from the model step by step, until all remaining variables in the model were significant at 0.05 or less.

Results

Twenty-five WPG and 25 WNG were interviewed. Eighty-four percent of the WPG ($n = 21$) were Caucasian, 68% ($n = 17$) catholic, mean age was 40.6 (SD = 9.1), mean years in current marriage 15.0 (SD = 9.1), with 1 or 2 children on average (Mean = 1.6, SD = 1.0), mean years of formal education 11.7 (SD = 4.6, equivalent to high-school in Brazil) with 14 (56%) having some higher education, economic status index of 4.7 (SD = 2.2). This general profile is compatible with the middle class social strata.²⁶ Sixty-four percent ($n = 16$) were employed and working full-time.

There were no differences regarding the demographic profiles between WPG coming from the Gambling Outpatient unit and from GAM-ANOM. The variables selected at the univariate analysis were SAS-Work, SAS-Marital life, SAS-Family membership, TCI-Harm Avoidance, TCI-Reward Dependence, and TCI-Self-Transcendence (see Table 1).

Regarding the personality variables, differences concentrated on personality temperament factors. On the character side, the high scores on Self-Directedness for both WPG (Mean = 30.8, SE = 0.11) and WNG (Mean = 30.6, SE = 0.13) excluded personality maladjustment. Indeed, only two subjects scored lower

Table 1 - Social Adjustment and Personality significant variables of Wives of Pathological Gamblers (WPG) and Wives of Non-Gambling husbands (WNG)

| Ratings | WPG (Mean ± SE) | WNG (Mean ± SE) | U | p |
|--|-----------------|-----------------|-------|-------|
| Social Adjustment Scale (SAS)* | | | | |
| Work | 1.54 ± 0.09 | 1.34 ± 0.07 | 211.5 | 0.075 |
| Leisure | 2.07 ± 0.12 | 2.29 ± 0.16 | 270.0 | 0.409 |
| Extended family | 1.62 ± 0.07 | 1.49 ± 0.08 | 243.0 | 0.175 |
| Marital life | 2.25 ± 0.14 | 1.92 ± 0.11 | 221.5 | 0.077 |
| Parental role | 1.32 ± 0.07 | 1.56 ± 0.17 | 142.0 | 0.524 |
| Family membership | 2.51 ± 0.12 | 1.80 ± 0.14 | 51.5 | 0.001 |
| Economic adequacy | 2.28 ± 0.30 | 1.56 ± 0.16 | 232.5 | 0.145 |
| Temperament and Character Inventory | | | | |
| Novelty seeking | 16.0 ± 1.05 | 18.4 ± 1.27 | 230.5 | 0.110 |
| Harm avoidance | 19.0 ± 1.15 | 15.5 ± 1.13 | 210.5 | 0.047 |
| Reward dependence | 17.9 ± 0.69 | 14.3 ± 0.78 | 147.5 | 0.001 |
| Persistence | 5.52 ± 0.36 | 4.72 ± 0.30 | 226.5 | 0.090 |
| Self-directedness | 30.8 ± 1.12 | 30.6 ± 1.33 | 308.0 | 0.930 |
| Cooperativeness | 34.7 ± 0.82 | 32.2 ± 1.19 | 241.0 | 0.164 |
| Self-transcendence | 19.2 ± 1.18 | 16.1 ± 1.27 | 221.0 | 0.075 |
| Negative Affectivity | | | | |
| Beck Depression Inventory | 9.24 ± 1.18 | 7.92 ± 1.45 | 259.0 | 0.297 |
| State-Trait Anxiety Inventory | 42.0 ± 1.79 | 41.4 ± 1.75 | 303.5 | 0.861 |

* Higher scores indicating less social adjustment

Table 2 - Multivariate logistic regression model for wives of Pathological Gamblers (WPG) and wives of Non-Gambling husbands (n = 50)

| Variables | Wald χ | df* | p | Odds Ratio (OR) | 95% OR interval | |
|--------------------|-------------|-----|-------|------------------------|-----------------|-------|
| | | | | | Lower | Upper |
| SAS - Marital life | 4.17 | 1 | 0.041 | 0.219 | 0.051 | 0.941 |
| Reward dependence | 8.36 | 1 | 0.004 | 0.707 | 0.559 | 0.894 |
| Persistence | 3.88 | 1 | 0.049 | 0.630 | 0.398 | 0.998 |
| Constant | 11.16 | 1 | 0.002 | 7.04 x 10 ² | - | - |

* Degrees of freedom

Model summary: $\chi^2 = 19.4$, $df = 3$, $p < 0.0001$, Nagelkerke's $R^2 = 0.430$

than 20 on Self-Directedness (one WPG and one WNG) indicating probable personality disorder.

The variables reported above entered the backward logistic regression model. Non-significant independent variables were excluded step-by-step in the following order: SAS-Work ($p = 0.977$), SAS-Family Membership ($p = 0.769$), TCI-Self-Transcendence ($p = 0.381$), and TCI-Harm Avoidance ($p = 0.275$). SAS-Marital life, TCI-Reward Dependence and TCI-Persistence remained in the final model (see Table 2). Finally, each excluded variable were separately added to the remaining block to see whether they could fit in, but none reached significance.

Discussion

WPG presented greater dissatisfaction with their marital status than the control sample. In contrast, WPG did not express signs of greater personality psychopathology, or more signs of negative affectivity. The high scores on the character factors for WPG suggest an overall fairly structured personality, which is in disagreement with previous descriptions. The fact that the sample of WPG was drawn from women who spontaneously sought help may partially explain this unexpected finding. However, it is noteworthy that marriage duration, and temperament profiles were similar to those described on studies conducted on diverse cultural environments.^{7,19} The absence of personality psychopathology does not mean that these women do not need support. Indeed, they are under great distress, and as previously pointed by Cermak and Farmer their object relation is compromised oscillating between dependence and control.^{16,18} Previous studies suggest that patients with such profile of interpersonal difficulties may profit from dynamic psychotherapy based on transference interpretation.^{32,33}

These long marriages have been attributed to the WPG faulty personality traits. Our data do not support this hypothesis, but they do suggest that personality may play a role in WPG enduring marriage, despite the overburden and disappointments. The high Reward Dependence suggests need for attachment and strong bonds. Reward Dependence is reported as one of the traits related to dependent personality disorder. The high persistence score suggests resistance to extinction, i.e. recurrence of previously rewarded behaviors even in the absence of current reinforcement. Subjects with such temperament profile are easily conditioned and likely to engage in social behaviors previously reinforced.²⁸ In other words, the first moments of the partnership must have been gratifying, and the WPG's temperament profile contributed to their marriage resilience even after the gambling problems started taking a heavy token on the marital bond.

More than half of the WPG were employed full time and had a high education. This highly professionalized profile is higher than that expected even for Brazilian middle class, and could be partly due to the need of such women to take charge of the family. According to the current data, the major impact from gambling on WPG lives is on economic adequacy.

The current study presents important limitations: 1) the small sample size may have hindered the finding of other meaningful associations; 2) we have limited the study to wives, while previous data suggest that the relationship of female pathological gamblers to their husbands is probably different; 3) Despite the sensitivity of the TCI to detect probable personality disorders,²⁹ a broader coverage including the investigation of narcissistic traits of personality, need to control interpersonal relationships and quality of object relation could have uncovered more features of WPG.

Conclusion

This study offers a description of WPG which is rather different from previous reports. In comparing WPG to other married women, we found individuals that despite strained family ties do not present major psychiatric or personality impairment. The well structured personality character may be related to the resilience of these women.

Despite enduring long and difficult marriages, the data from WPG described in this study do not support the notion of dependent individuals with a personality disorder, neither overwhelmed by depression. The cross-sectional nature of the study precludes conclusions whether the social maladjustment is the cause of WPG remaining on an ailing marriage, or the consequence of the burden of living with the gambler. Nonetheless, social adjustment and particularly marital role surfaced as the main issue of WPG. The co-dependence concept applied to WPG and spouses married to addicted individuals may work as double edged swords: they legitimate their problems; conversely they may stigmatize them as inapt and needy. Maybe, the concept itself would be more accurate and comprehensive if instead of adopting a disease model, it encompassed adaptive and maladaptive features of spouses married to addicted patients.

Further studies are needed to explore the contingencies of the marital and family bonds of pathological gamblers and their spouses, so that more effective and comprehensive treatments can be offered.

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Disclosures

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* Modest

** Significant

*** Significant. Amounts given to the author's institution or to a colleague for research in which the author has participation, not directly to the author.

Note: USP = Universidade de São Paulo; ANJOTI = Associação Nacional do Jogo Patológico e Outros Transtornos do Impulso.

For more information, see Instructions for authors.

References

- Bland RC, Newman SC, Orn H, Stebelsky G. Epidemiology of pathological gambling in Edmonton. *Can J Psychiatry*. 1993;38(2):108-12.
- Lorenz VC, Yaffee RA. Pathological gambling: psychosomatic, emotional and marital difficulties as reported by the spouse. *J Gambl Stud*. 1988;4(1):13-26.
- Ciarrocchi J, Hohmann AA. The family environment of married male pathological gamblers, alcoholics, and dually addicted gamblers. *J Gambl Stud*. 1989;5(4):283-91.
- Bergh C, Kuhlhorn E. Social, psychological and physical consequences of pathological gambling in Sweden. *J Gambl Stud*. 1994;10(3):275-285.
- Shaw MC, Forbush KT, Schlinder J, Rosenman E, Black DW. The effect of pathological gambling on families, marriages, and children. *CNS Spectr*. 2007;12(8):615-22.
- National Opinion Research Center at the University of Chicago - NORC. *Gambling Impact and Behavior Study: Report to the National Gambling Impact Study Commission*. Chicago, Ill; 1999.
- Tepperman JH. The effectiveness of short-term group therapy upon the pathological gambler and wife. *J Gambl Stud*. 1985;1(2):119-30.
- Harkness D, Cotrell G. The social construction of co-dependency in the treatment of substance abuse. *J Subst Abuse Treat*. 1997;14(5):473-9.
- Whitfield CL. Co-dependence: our most common addiction – some physical, mental, emotional and spiritual perspectives. *Alcohol Treat Q*. 1989;6(1):19-36.
- Gordon JR, Barrett K. The codependence movement: issues of context and differentiation. In: Baer JS, Marlatt GA, McMahon RJ, editors. *Addictive Behaviors Across the Life Span: Prevention, Treatment, and Policy Issues*. California: Sage Publications; 1993. p.307-39.
- Prest LA, Benson MJ, Protinsky HO. Family of origin and current relationship influences on codependency. *Fam Process*. 1998;37(4):513-28.
- Lesieur HR, Rothschild J. Children of gamblers anonymous members. *J Gambl Stud*. 1989;5(4):269-81.
- Darbyshire P, Oster C, Carrig H. The experience of pervasive loss: children and young people living in a family where parental gambling is a problem. *J Gambl Stud*. 2001;17(1):23-45.
- Abbott D, Cramer SL, Sherrets SD. Pathological gambling and the family: practice implications. *Fam Soc*. 1995;76(4):213-9.
- Miller MM. Medical approaches to gambling issues – II: the medical response. *Wis Med J*. 1996;95(9):635-42.
- Cermak TL. Al-anon and recovery. In: Galanter M, editor. *Recent developments in alcoholism*. New York: Plenum Press; 1989. v.7, p.91-104.
- American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 3rd ed., rev. Washington, DC: American Psychiatric Association Press; 1987.
- Farmer SA. Entitlement in codependency: developmental and therapeutic considerations. *J Addict Dis*. 1999;18(3):55-68.
- Savron G, Pitti P, De-Luca R. Mood states and personality traits in pathological gamblers sample and their family members. *Rev Psiquiatria*. 2003;38(5):247-58.
- Zetterlind U, Berglund M. The rate of co-dependence in spouses and relatives of alcoholics on the basis of the Cermak co-dependence scale. *Nord J Psychiatry*. 1999;53(2):147-51.
- Gotham HJ, Sher KJ. Do codependent traits involve more than basic dimensions of personality and psychopathology? *J Stud Alcohol Drugs*. 1996;57(1):34-9.
- Irwin HJ. Codependence, narcissism, and childhood trauma. *J Clin Psychol*. 1995;51(5):658-65.
- Hudson CR. Social adjustment of female spouses and significant others of substance abusers. *Dissertation Abstracts International: Section B: The sciences and engineering*. 2004;65:1549.
- Ciarrocchi JW, Reinert DF. Family environment and length of recovery for married male members of Gamblers Anonymous and female members of GamAnon. *J Gambl Stud*. 1993;9(4):341-52.
- World Medical Association. World Medical Association Declaration of Helsinki: ethical principles for medical research involving human subjects. *J Postgrad Med*. 2002;48(3):206-8.
- Instituto Brasileiro de Geografia e Estatística - IBGE. *Pesquisa nacional por amostra de domicílios* Rio de Janeiro: IBGE; 1998.v.10.
- Weissman MM, Bothwell S. Assessment of social adjustment by patient self report. *Arch Gen Psychiatry*. 1976;33(9):1111-5.
- Cloninger CR, Svrakic DM, Przybeck TR. A psychobiological model of temperament and character. *Arch Gen Psychiatry*. 1993;50(12):975-90.
- Svrakic DM, Whitehead C, Przybeck TR, Cloninger CR. Differential diagnosis of personality disorders by the seven-factor model of temperament and character. *Arch Gen Psychiatry*. 1993;50(12):991-9.

30. Beck AT, Steer RA, Garbin MG. Psychometric properties of the Beck depression inventory: twenty-five years of evaluation. *Clin Psychol Rev.* 1988;8(1):77-100.
31. Spielberger CD, Gorsuch RL, Lushene RE. *Manual for the State-Trait Anxiety Inventory.* Palo Alto, CA: Consulting Psychologists Press; 1970.
32. Høglend P, Amlø S, Marble A, Bogwald KP, Sørbye O, Sjaastad MC, Heyerdahl O. Analysis of the patient-therapist relationship in dynamic psychotherapy: an experimental study of transference interpretations. *Am J Psychiatry.* 2006;163(10):1739-46.
33. Høglend P, Bogwald KP, Amlø S, Marble A, Ulberg R, Sjaastad MC, Sørbye O, Heyerdahl O, Johansson P. Transference interpretations in dynamic psychotherapy: do they really yield sustained effects? *Am J Psychiatry.* 2008;165(6):763-71.