

Social vulnerability in families living with long-term addictive behavior

Vulnerabilidade social em famílias que convivem com comportamento aditivo por tempo prolongado

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Keywords

Substance-related disorders; Family relations; Family health; Social vulnerability; Public health nursing

Descritores

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Abstract

Objective: To analyze the social vulnerability of families living for a long time with the addictive behavior of one of their members.

Methods: A cross-sectional study conducted with relatives of 29 drug users hospitalized with physical trauma associated with drug intoxication from April to September 2014. The Vulnerability Index of Paraná Families was used. It has the following dimensions: adequacy of residence; profile and composition of family; access to work and income; and schooling conditions. Data were analyzed by tendency measures.

Results: Users had a mean age of 40.1 years and an average addictive behavior of 20.8 years. Only three families were not in social vulnerability. The greatest vulnerability was related to access to work and income (79.3%) and schooling (82.6%), with proportional relation between these dimensions.

Conclusion: There was worsening of vulnerability in long-term indicators, proportional to the years coping with drugs.

Resumo

Objetivo: Analisar a vulnerabilidade social de famílias que convivem por tempo prolongado com o comportamento aditivo de um de seus membros.

Métodos: Estudo transversal, com familiares de 29 usuários de drogas, internados com trauma físico associado à intoxicação por drogas de abuso entre abril a setembro de 2014. Utilizou-se o Índice de Vulnerabilidade das Famílias Paranaenses, composto pelas dimensões: adequação do domicílio; perfil e composição familiar; acesso ao trabalho e renda e escolaridade. Os dados foram analisados por medidas de tendência.

Resultados: Os usuários tinham média de idade de 40,1 anos e comportamento aditivo médio de 20,8 anos. Apenas três famílias não estavam em vulnerabilidade social, e a maior vulnerabilidade foi em relação ao acesso ao trabalho e renda (79,3%) e escolaridade (82,6%), com relação proporcional entre essas dimensões.

Conclusão: Encontrou-se agravamento da vulnerabilidade em indicadores de longo prazo, proporcional aos anos de enfrentamento às drogas.



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Introduction

The notions of exclusion and social vulnerability have been used in Brazil and worldwide by researchers, managers and social policy operators in an effort to broaden the understanding of situations traditionally defined as poverty by seeking a broader and complementary perspective to the issue of insufficient income. The concept of vulnerability is delimited by dynamic and multigenerational social processes involving at least three dimensions, namely: exposure to risk trajectories; internal and external reaction capacities; and adaptation possibilities based on both the intensity of the risk and the resilience of people.⁽¹⁻³⁾

Considering the concern of not limiting the evaluation of vulnerability to the analysis of income, in the decade of 1990, several indicators were statistically constructed with the objective of understanding the social reality through a single measure that combined multiple measurements of its quantifiable analytical dimensions. These instruments are facilitators for policy-making, decision-making in public spheres, and for the negotiation of indicators of national and global public policy agendas.⁽²⁻⁴⁾

Synthetic indicators are synthesized measures used to apprehend a particular social reality or dimensions of the social world. The application of these measures rests on the opportunity to summarize multidimensional and complex issues with the possibility of interpreting results comparatively in different social realities by following the evolution of the situation and the chosen unit of reference, identifying dimensions of the life course of individuals and families, and monitoring social indicators of territories and environmental conditions. Finally, they enable the more appropriate proposition and targeting of actions and programs aimed at populations in vulnerability processes and with reduced response capacities for the promotion, protection and maintenance of health.⁽⁴⁻⁶⁾

An integrative review of literature using controlled descriptors in English and Portuguese. Twenty-three synthetic indexes used in Brazil were identified based on the analysis of primary data verified through field surveys, and of secondary data

from databases of the federal government and municipalities, from the perspective of social determinants of health, socio-environmental situation and climatic conditions, observation of a territory and specific geographic spaces and the family, and the course of life.⁽³⁾

The Vulnerability Index of Paraná Families (Portuguese acronym: IVFPR) is a synthetic indicator of vulnerability from the perspective of the family and the course of life. It is an indirect measure of social vulnerability constructed to determine the vulnerability of families enrolled in social programs in the state of Paraná. IVFPR is a support tool for municipalities used to prioritize families in worse situations and give direction to interventions for each situation.⁽³⁾ The Index was used as a parameter to measure the role of drugs of abuse in its final result.

Studies point to a large part of the world population affected, directly or indirectly, by trafficking, commercialization and violence related to drug use, and intense repercussions on the health of individuals, family life and the coexisting community.^(7,8) At individual level, the effects of drug abuse are severe, and the increased risk behavior and social exclusion have direct repercussions that prevent the person from living a dignified and prosperous life.^(9,10)

In this perspective, drug abuse should be discussed in the field of nursing professionals' training, especially on the prevalence of drug use in different social groups, the use of assistance methodologies for health promotion, prevention, care and social reinsertion, as well as about professional qualification to cope with drug abuse in society. The difficulty of formally disseminating knowledge on the drug issue is proportional to the necessary magnitude of this knowledge for acting effectively in this field. This study sought to become an ally of this transversal and interdisciplinary discussion line that includes drug abuse.

Based on the assumption that long-term coexistence with drugs in the family environment determines the increase of vulnerability of families, the present study proposes the analysis of the interface of the drug abuse phenomenon and social vulnerability of families, and intends to answer the following question: Has drug abuse in the lives of these

families made them more vulnerable? Considering this, the objective of the present study was to analyze the social vulnerability of families coexisting with the addictive behavior of one of their members for a long time.

Methods

This is a cross-sectional, quantitative study with a series of 29 cases considered academically as a sentinel event for the use of drugs of abuse.⁽¹¹⁾ The studied population consisted of individuals who met the specific set of criteria for the sentinel disease under investigation: physical trauma and use of drugs of abuse, i.e., a compatible clinical picture/suggestive signs and symptoms, or confirmatory laboratory tests of intoxication by drug of abuse; attendance at the Hospital Universitário Regional de Maringá from April to September 2014; and family bond and residence in the city of Maringá (state of Paraná-PR).

In the present study, was used a sentinel event developed and evaluated academically to adapt this methodology to the epidemiological surveillance of repercussions of drug abuse on the health of users and their families, and for the construction of more qualitative indicators to monitor the drug abuse phenomenon in society.^(11,12)

Data collection was performed in the residences with use of two instruments, namely: the script for semi-structured interview with questions related to the sociodemographic and economic characterization of the study participants, and the script of the Vulnerability Index of Paraná Families (IVFPR).

The IVFPR was developed by the Institute for Economic and Social Development of the state of Paraná (Portuguese acronym: IPARDES) to evaluate the vulnerability of families in Paraná enrolled in the federal government register of social programs (Portuguese acronym: CadÚnico). The index has 19 indicators divided into four dimensions: Adequacy of residence (IV1) - private or collective domicile, dormitory density, construction material, piped water and sanitary sew-

age; Profile and composition of the family (IV2) - responsibility for the family, ratio between children and adults, presence of child labor in the family, presence of hospitalized children, adolescents, adults and elderly people, presence of disabled and elderly, and illiteracy of the head of the family; Access to work and income (IV3) - adult work and per capita income; and Schooling conditions (IV4) - out-of-school children and adolescents, age/grade gap, and youth and adults without primary school.⁽³⁾

The index of each dimension has different scores: the maximum score of IV1 is 12; the maximum score of IV2 is 20; IV3 has a maximum score of 3; and IV4 has a maximum score of 8. The index of each dimension was calculated based on the sum of the score obtained and divided by the respective maximum score, resulting in values between zero and one. The IVFPR was calculated based on the arithmetic mean of the indices of the four dimensions, considering all dimensions with the same weight.⁽³⁾ The Index value is in decimal form and ranges from zero to one. The closer to one the more vulnerable is considered the family.

Data were compiled in Microsoft Office Excel 10.0 spreadsheets and analyzed using simple descriptive statistics (absolute and relative frequencies, and calculation of means and standard deviation) and central location and dispersion measurements, with calculation of Pearson's variation coefficients. The study was approved by the Research Ethics Committee of the Universidade Estadual de Maringá under number 458.185/2013.

Results

There was an average of 4.1 residents per household, and an average of 1.8 children and 1.4 elderly. The location of households was not distributed uniformly in the municipality of Maringá. Three families lived in the central region, and the others were distributed in surrounding or peripheral neighborhoods, with concentration in the northern region of the municipality (19 or 65.5%).

The age of drug users ranged from 20 to 65 years old, with a mean of 40.1 years. The majority were male (28 or 96.6%), single (22 or 75.9%), and unemployed (15 or 51.7%). Ten (34.5%) reported less than four years of schooling, and two never attended school.

Alcohol was the drug referred by the majority at hospital admission (28 or 93.3%). Thirteen reported chronic use of alcohol associated with other drugs, and fifteen reported daily use of drugs and the performance of illicit maneuvers to purchase it. The time of use of drugs of abuse ranged from one to fifty-six years, with an average of 20.8 years. In 16 families (55.2%), there was presence of family addictive behavior, of which in 13 it was in parents of sentinel events.

In 17 cases (58.6%), the relatives reported abstinence from drug use, the majority (11 or 64.7%) in a period of less than six months. The main causes for the return to drug use or relapse were maintaining the group of friends, not changing the lifestyle, love deception, the lack of follow-up, and abandonment of social rehabilitation treatment.

From the family's perspective of sentinel events and their life course, the IVFPR calculation ranged between zero and 0.4673 (greater vulnerability in the sample studied) and only 10.3% of families were not in social vulnerability (Table 1).

The "adequacy of residence" dimension obtained a higher number of families with no indication of vulnerability (58.6%). The "profile and composition of the family" dimension showed the lowest variability of the index, with a maximum score of 0.3500, while the "access to work and income" dimension had the highest score (0.7692). Most families (72.4%) had an index of 0.25 in the "schooling conditions" dimension.

The IV3 and IV4 of the IVFPR showed practically symmetrical distribution, with maximum difference of 3.5% between the mean and the median for the IV3. IV1 and IV2 presented positive asymmetry (mean > median), indicating a set of families with high vulnerability index, and overestimating the mean (Table 2).

Table 1. Distribution of drug users' families according to IVFPR* and dimensions

Dimension	n(%)
IVFPR*	
0.4000 to 0.4673	3(10.3)
0.3000 to 0.3999	5(17.2)
0.2000 to 0.2999	8(27.6)
0.1000 to 0.1999	5(17.2)
0.0001 to 0.0999	5(17.2)
0.0000	3(10.3)
IV1†	
0.4167	5(17.2)
0.3333	1(3.4)
0.2500	1(3.4)
0.1667	5(17.2)
0.0000	17(58.6)
IV2‡	
0.3500	1(3.4)
0.3000	6(20.7)
0.2000	6(20.7)
0.1000	11(37.9)
0.0000	5(17.2)
IV3§	
0.7692	3(10.3)
0.6154	1(3.4)
0.5385	4(13.8)
0.3846	3(10.3)
0.3077	4(13.8)
0.2308	2(6.9)
0.1538	6(20.7)
0.0000	6(20.7)
IV4¶	
0.7500	1(3.4)
0.5000	2(6.9)
0.2500	21(72.4)
0.0000	5(17.2)
Total families	29(100)

*Vulnerability Index of Paraná Families; †Adequacy of residence; ‡Profile and composition of the family; §Access to work and income; ¶Schooling conditions

The Pearson's coefficient of variation (CV(%)) given by the quotient of the standard deviation and the mean, shows that all dimensions and the IVFPR have great heterogeneity with CV (%) > 30.0%, and distinction for IV3, in which CV (%) > 80.0%, and IV1, in which CV (%) > 136.0%. This result of IV1 is explained by the fact that 17 families (58.6%) had IV1=0.00, and five families (17.2%) had an index of 0.4167, increasing the standard deviation value.

Half of the analyzed families had IVFPR less than or equal to 0.2087, and about 25.0% of families had IVFPR greater than 0.2926. IV3 and IV4 are the dimensions that most contributed to the average IVFPR, with 37.1% and 29.4%, respectively, showing the great importance of access to work, income and schooling conditions. Dimension IV1

Table 2. Distribution of IVFPR* results of drug users' families according to statistical analysis

Statistics	Indices				
	IV1 [†]	IV2 [‡]	IV3 [§]	IV4	IVFPR*
Mean	0.1207	0.1534	0.3050	0.2414	0.2051
Median	0.0000	0.1000	0.3077	0.2500	0.2087
Maximum	0.4167	0.3500	0.7692	0.7500	0.4673
Minimum	0.0000	0.0000	0.0000	0.0000	0.0000
25th percentile	0.0000	0.1000	0.1538	0.2500	0.0885
75th percentile	0.1667	0.2000	0.5385	0.2500	0.2926
95th percentile	0.4167	0.3000	0.7692	0.5000	0.4015
Standard deviation	0.1645	0.1085	0.2454	0.1564	0.1283
Pearson's coefficient of variation (CV)	136.2900	70.7300	80.4600	64.7900	62.5500

*Vulnerability Index of Paraná Families; [†]Adequacy of residence; [‡]Profile and composition of the family; [§]Access to work and income; ^{||}Schooling conditions

(adequacy of residence) contributes in 14.7%, and dimension IV2 (profile and composition of the family) contributes with 18.7% for the IVFPR.

Data in table 3 correspond to the Pearson's correlation matrix between indices of the four dimensions and the IVFPR.

The "access to work and income" dimension shows the highest correlation with IVFPR (0.831), demonstrating that the higher the family vulnerability in the 'access to work and income' dimension the higher the family's IVFPR, confirming this is the dimension of greatest influence on the IVFPR, followed by the dimension of schooling conditions, with a correlation of 0.704. The "profile and composition of the family" dimension shows the lowest correlation, therefore, this is the dimension of less influence on the IVFPR of families.

The correlation between IV3 and IV2 is the highest, showing that families with worse working and income conditions had a worse family composition (0.537). Likewise, the correlation between IV3 and IV4 was the second highest. Although the correlation was in the regular range (0.465), it was statistically different from zero ($p < 0.05$).

Table 3. Pearson's correlation matrix between indices of the four dimensions and the IVFPR*

Indices	IV1 [†]	IV2 [‡]	IV3 [§]	IV4	IVFPR*
IV1 [†]	1	0.131	0.292	0.372	0.695¥
IV2 [‡]	0.131	1	0.537¥	0.186	0.562¥
IV3 [§]	0.292	0.537¥	1	0.465**	0.831¥
IV4	0.372	0.186	0.465¥	1	0.704¥
IVFPR*	0.695¥	0.562¥	0.831¥	0.704¥	1

*Vulnerability Index of Paraná Families; [†]Adequacy of residence; [‡]Profile and composition of the family; [§]Access to work and income; ^{||}Schooling conditions; ¥Statistically significant p-value < 0.01 in two-tailed test; **Statistically significant p-value < 0.05 in two-tailed test

Discussion

Like any other proposal for measuring complex situations, the analysis in this text is subject to the limitations of choices of components and weights given to each condition of the synthetic index used. Its use requires an analysis of its limitations and potentialities, but its application allows the interpretation of results comparatively with the trend analysis of a social reality, such as the follow-up of dimensions of individuals' life course, the living conditions at home, and residence arrangements.⁽²⁻⁴⁾

Considering the specificity of the group studied, a priori, sentinel events presented characteristics of individual vulnerability: unemployment; low educational level; daily use of drugs and illegal maneuvers for their acquisition. However, three situations demonstrate the influence from the individual (users) to the collective (families): addictive behavior for more than 20 years, above the national average of 13 years;⁽⁷⁾ cycle of abstinence and relapses, and victims of various episodes of physical aggression and traffic accidents.

By articulating hospitalization, physical trauma and intoxication by drugs of abuse and understanding hospitalization for physical trauma as an avoidable event in the cycle of abstinence and relapse of individuals whose families could have already been assisted by public policies, the study investigated sentinel events and found a long period of drug use in the family context. There was also discussion on the investigation and evaluation of these sentinel events, which could collaborate in developing campaigns of drug use prevention, with the aim to break the chain of risk and reduce consumption in regional spaces.⁽¹²⁻¹⁴⁾

In the family, the situation is complicated with the increase of dependence, because the social rupture leads the consumer to use illicit maneuvers such as recurrent lies; theft; violence; prostitution and unwanted pregnancy. These situations are common among reports of drug addicts who, after breaking family ties, start to live on the street exposed to risks of prostitution, marginality and social exclusion, and significant harm to education (schooling), and access to work and income.^(15,16)

In Brazil, the Psychosocial Care Network (Portuguese acronym: RAPS) establishes attention points for the care of people with mental problems, including the harmful effects of alcohol and other drugs. However, most families were unaware of these services and used only services of health emergencies, psychiatric emergencies and psychiatric hospitals. The access of the families to health services could represent the opportunity for health professionals programming actions of drug use prevention, and for the reduction of repercussions of harmful use within the family.⁽¹⁷⁾

In addition, the investigated households were concentrated in neighborhoods configured as communities with high indicators of violence related to the consumption of drugs of abuse.⁽¹⁸⁾ The literature addresses drug use as a socially non-uniform occurrence, since the severity of use occurs mainly in communities and families with high social vulnerability.^(16,19,20)

The IVFPR demonstrated the high social vulnerability index of these families with a maximum score of 0.4673 on a scale of 0 to 1. The greater the vulnerability of these families in relation to schooling conditions the greater the vulnerability with respect to access to work and income. In other words, the lack of access to work and income, and low levels of schooling contribute substantially to family vulnerability, which is similar to data found in other municipalities in the same state.⁽³⁾ These families have weaknesses in long-term indicators, such as low educational level and internal professional qualification. The addition of these aspects to the precariousness of access to psychosocial care services to cope with drug abuse seems to indicate a relationship between the years of confrontation

and suffering resulting from the use of drugs in the family context, and the social vulnerability.

The families investigated in this study reside in a state of the federation with Human Development Index (HDI) of 0.749, and in a municipality with a 'very high' Municipal Human Development Index (MHDI) of 0.808, ranking 23rd nationally, and in 2nd place of the state rank. In the state of Paraná, there are 580,742 families with a total monthly income of up to three minimum wages, corresponding to 19.4% of all families in the state.⁽³⁾ However, a much higher percentage was found in the families under study.

When evaluating the families of Paraná, were identified 56.5% of families with difficulties of access to work and income, and 32.6% of families had adults with low educational skills.⁽³⁾ In this study, these percentages correspond to 79.3% and 82.8%, respectively, showing the greater social vulnerability of families studied.

The correlation between dimensions indicated that the greater the family vulnerability to schooling conditions the greater the vulnerability with respect to access to work and income. These data indicate families in greater vulnerability when compared to the population analyzed in Paraná.⁽³⁾ The low educational level of the head of the family is listed as one of the factors for the initiation of drug use in the family. The incompatibility between level of schooling and age may imply a lower insertion in the formal labor market, as measured in the study by the lower financial availability and consequently, greater contribution to the social vulnerability and drug use in the family.⁽²¹⁾

The consequence of drug use hardly allows users to remain at work, leads them to steal within their homes, cause damages to society patrimony, and the promotion of street situation or total dependence to the family structure. This situation also interferes in conjugality and in several intrafamilial conflicts arising from the addictive behavior.^(8,22) The most vulnerable families may experience higher levels of harm resulting from drug use. Impoverishment poses an additional risk, as the loss of consumer capacity can lead to juvenile crime, with trafficking and drug trade

becoming a source of income and subsistence for individuals and their families.⁽²⁰⁾

The existence of any of the precariousness related to any of the dimensions already indicates the need for actions or reassessment of programs related to the reduction of these families' vulnerability.⁽²³⁾ Actions directed at drug users and their families require interaction between different public policies. Interventions must be linked to universal policies to be able to transform social exclusion processes that produce inequities and vulnerability into processes of inclusion and health.

The analysis of vulnerability in these families invites reflection on the need to implement public policies to address drug use in communities, and promote access to work, income and education as the focus of actions to reduce social vulnerability in families.

In this context, Nursing stands out for developing and producing activities related to the care, promotion, prevention and recovery of health. Nurses are inserted professionally at all levels of health care and have the important role of identifying situations of vulnerability related to drug use. As members of the multidisciplinary health team and responsible in large part for both primary health care actions and specific mental health actions, nurses should act comprehensively in the care of families of drug users, in the prevention of worsening of the case, and by facilitating access to health care and social assistance to combat drug abuse in society.

Conclusion

The Vulnerability Index of Paraná Families is used in large populations, which constitutes a limitation of this study. However, the use of the epidemiological investigation methodology of sentinel event enabled the acquisition of important information from a reduced number of cases that reflect the gravity and magnitude of drug abuse. It also includes issues initially not covered by traditional analysis, widening the scope of Epidemiological Surveillance. The results pointed to vulnerable families, when evaluated by the

Vulnerability Index of Paraná Families, mainly in long-term indicators, such as schooling conditions and access to work and income. Long-term use of drugs within the family seemed to aggravate the vulnerability of families. It is also noteworthy that understanding the family vulnerability in face of drug abuse allows nursing professionals' realization that families also need care, guidance and strategies to alleviate stress and suffering. Thus, they can propose strategies for the empowerment of individuals to cope with drug abuse in the family.

Collaborations

Reis LM and Oliveira MLF declare they have contributed to project design, analysis and interpretation of data, article writing, critical review of intellectual content and final approval of the version to be published.

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