

Influence of mental disorders on school dropout in Mexico

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ABSTRACT

Objective. *To study the impact of mental disorders on failure in educational attainment in Mexico.*

Methods. *Diagnoses and age of onset for each of 16 DSM-IV disorders were assessed through retrospective self-reports with the Composite International Diagnostic Instrument (CIDI) during fieldwork in 2001–2002. Survival analysis was used to examine associations between early onset DSM-IV/CIDI disorders and subsequent school dropout or failure to reach educational milestones.*

Results. *More than one of two Mexicans did not complete secondary education. More than one-third of those who finished secondary education did not enter college, and one of four students who entered college did not graduate. Impulse control disorders and substance use disorders were associated with higher risk for school dropout, secondary school dropout and to a lesser degree failure to enter college. Anxiety disorders were associated with lower risk for school dropout, especially secondary school dropout and, to a lesser degree, primary school dropout.*

Conclusions. *The heterogeneity of results found in Mexico may be due to the effect of mental disorders being diminished or masked by the much greater effect of economic hardship and low cultural expectations for educational achievement. Future research should inquire deeper into possible reasons for the better performance of students with anxiety disorders in developing countries.*

Key words Population surveys; psychopathology; educational status; schools; school dropouts; Mexico.

Mental disorders occur early in life and have long-lasting disabling consequences, affecting physical health and performance in daily life (1). A number

of social outcomes such as educational attainment (2, 3) and the likelihood of marrying and maintaining a family (4, 5) have also been linked to mental disorders. Of special relevance is the impact of mental disorders on different stages of educational progression because of the widespread consequences of educational attainment on an individual's life. Research in developed countries (6–10) has suggested that not all mental disorders are equally associated with school dropout and that the relationship between mental disorders and school attainment

also varies with the educational level under consideration. New results from the World Mental Health Surveys (11) suggest that mental disorders in general are more strongly associated with school dropout in developed than in developing countries and that in developing countries substance use disorders and impulse control disorders have a prominent role in secondary education dropout only. These results have not been replicated in any developing country, where dropping out of school is often a large problem.

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In Mexico, the rates of dropping out of school are a matter of great concern. According to a speech from the prior Minister of Education in Mexico, 5% of children 12 years of age do not attend school (12). At 13 years this percentage is 9% and at 14 years it increases 7-fold. School dropout was attributed to “drug addiction, health-related issues, depression and low self-esteem and to violence among the students and their families” (12). In a study of dropouts among medical students in Mexico, the main factors related to student attrition during college are believed to be “family attitude, economic conditions, study habits, inadequate selection of career, motivation, age, marital status and employment” (13). It is difficult to say how mental disorders influence school performance and attainment for Mexican society and where mental disorders fit into these arguments, as no hard data were provided by either report to support either claim. Even though low levels of educational attainment, and low socioeconomic status in general, have been associated with several mental disorders in Latin America and Mexico (14), information is lacking on how much of this association is due to mental disorders affecting school performance and thereby shifting individuals into a lower socioeconomic status. The data in this study are unique in that they disentangle whether a mental disorder preceded the termination or dropping out of school, thereby going beyond simple cross-sectional associations as reported previously.

This study has several aims. It takes advantage of the Mexican National Comorbidity Survey (M-NCS) (15), a large nationally representative survey of urban Mexico, to examine the school dropout rates in Mexico and the associations between a number of DSM-IV psychiatric disorders with child-adolescent onset and subsequent school dropout before completion of four educational milestones: primary school graduation, secondary school graduation, college entry, and college graduation. A methodology was used similar to that employed in the United States of America (3) and in a merged sample of countries participating in the World Mental Health Surveys (11) to allow for further comparisons of dropouts and the impact of mental disorders on school dropout in Mexico. Compared with developed countries, Mexico has higher rates of dropping

out of school but relatively low rates of mental disorders. An analysis of this particular case can shed some insight on this alleged association.

MATERIALS AND METHODS

The M-NCS (15) is a cross-sectional, observational study, conducted as part of the World Health Organization’s World Mental Health Survey Initiative, a coordinated series of household surveys carried out in 28 countries around the world (16). The M-NCS is based on a stratified, multistage area probability sample of household residents aged 18 to 65 years living in Mexico in communities with a population of at least 2 500 people. Interviews were conducted from September 2001 through May 2002. The response rate was 76.6%, with 5 826 respondents interviewed. To minimize respondent burden, the full risk factor battery was administered only to a subsample of respondents, selected with known probabilities on the basis of initial diagnostic assessments. Poststratification weights were also applied to the total Mexican population according to the year 2000 census in the target age and sex range. The 2 362 respondents who completed this extended interview are included in this study and, after weighting, they are representative of the Mexican urban population.

Assessments

The M-NCS used the World Mental Health version of the Composite International Diagnostic Interview (WMH-CIDI) (17), a fully structured diagnostic interview, to assess educational outcomes, psychiatric disorders, and their correlates.

Psychiatric disorders

The WMH-CIDI assesses a wide range of psychiatric disorders according to DSM-IV criteria. The DSM-IV disorders evaluated in the core WMH-CIDI assessment include anxiety disorders [panic disorder with or without agoraphobia, generalized anxiety disorder, specific phobia, social phobia, agoraphobia without panic disorder, posttraumatic stress disorder (PTSD), separation anxiety disorder], mood disorders (major depressive disorder, bipolar disorders I and II, dysthymic disorder), impulse control

disorders (oppositional-defiant disorder, conduct disorder, attention-deficit/hyperactivity disorder), and substance use disorders (alcohol abuse, drug abuse, alcohol abuse with dependence, and drug abuse with dependence). Organic exclusion rules and diagnostic hierarchy rules were used in making diagnoses. All respondents were asked the age at which they first experienced any of the above disorders.

Educational attainment

Respondents were asked how many years of education they completed. With these responses and assuming an orderly academic progression, the predictors of educational attainment were examined in categories that included completion of primary education (equivalent to 8 years of education), finishing secondary education after 12 years of education (high school or “preparatoria” in Mexico), entry to tertiary education after 13 years of education, and graduation from tertiary education (such as university or other higher levels of education after secondary education) after a total of 16 years of education. These educational stages were standardized for all participating countries in the World Mental Health Initiative, both developing and developed countries, and the standardization was kept for this paper in order to maintain comparability.

Childhood adversity

Because of the finding in previous studies that childhood adversities explain some of the associations between early-onset mental disorders and subsequent educational attainment, controls were included in the analysis for five childhood adversities: childhood traumatic events, childhood neglect, parental mental illness, family disruption, and low parental educational attainment. Childhood traumatic events were assessed with questions about whether the respondent was physically abused by a caregiver, was raped or sexually assaulted, or experienced a life-threatening illness or injury. Childhood neglect was assessed with a five-item scale composed of questions about neglect and maltreatment by adult caregivers during childhood (18). Parental mental illness was assessed with Family History Research Diagnostic Criteria (19, 20). Family dis-

ruption was defined as parental death or divorce or as being raised by someone other than biological parents. Parental educational attainment was assessed as the highest level of education attained by either parent.

Statistical analysis

The analysis to study the relationship between psychiatric disorders and educational attainment is described elsewhere (3). Discrete-time survival analysis with person-years as the unit of analysis was used to estimate the relationship between mental disorders and subsequent educational attainment (21). Disorders were entered as time-varying predictors using data on age at onset. Separate models were estimated for each of the 4 disorder categories and 16 disorders described above. In addition, models were estimated for composite disorders (having exactly one disorder, exactly two disorders, or three or more disorders versus having no disorder). The relationships between psychiatric disorders and subsequent failure to complete each educational milestone are presented as odds ratios (ORs). Confidence intervals and statistical tests were calculated using the Taylor-series linearization method as implemented in the Software for Survey Data Analysis (SUDAAN) software package to account for the complex sample design (22). Significance was assessed using two-sided tests at the 0.05 level. Because of the multiple comparisons included in this report for each dependent variable, findings with $P < 0.01$ are emphasized in the discussion. To estimate the decrease in educational attainment attributable to mental disorders in the population, logistic regression equations were estimated for

each of the educational milestones, including as predictors the control variables listed above and binary indicators for the mental disorders found to predict termination before that milestone. On the basis of these equations, the population attributable risk proportion was calculated by using the difference between predicted probability of completing the milestone with and without psychiatric disorders.

Models of the association between mental disorders and subsequent school dropout included statistical controls for birth cohort (age at the time of interview), sex, and sociodemographic variables related to both educational attainment and mental disorders. These controls included measures of family of origin, socioeconomic status (parents' standardized year of education, parents' mental disorder if any, divorce or death if any), respondents' childhood family adversity (having been beaten, raped, sexually assaulted, neglected by family members), and nativity (born in own country, whether parents and grandparents were born in own country).

RESULTS

Table 1 shows the number and percentages of those who failed to complete (terminated) four educational milestones in Mexico. A total of 17.0% terminated primary education and 62.1% of those who finished primary education were not able to finish secondary education. Overall, more than one of every two Mexicans did not complete secondary education. More than one-third of those who finished secondary education did not enter college, and one of four students who entered college did not graduate.

Table 2 presents estimates of the impact of mental disorders on termination

of these four milestones. No consistent associations between having "any mental disorder" across the four milestones were found. For individual disorders, a total of 56 regressions were fitted, with 27 ORs above the null (5 reaching statistically significant associations), 23 below the null (4 statistically significant), and 6 in the null value. For the 10 individual disorders for which it was possible to obtain estimates for primary school dropout, 6 were associated with elevated risks and 3 were associated with decreased probabilities of termination, but only 1 disorder had a lower and significant OR for decreased termination (separation anxiety disorder). Mixed effects of psychiatric disorders were found for secondary school dropout, with anxiety disorders showing several reduced ORs (significant for generalized anxiety disorder and PTSD) and any mood and any substance use disorders showing increased ORs of termination (significant for drug abuse and dependence only). For failure to enter college among high school graduates, slightly more than half of the disorders had decreased ORs of termination (8 of 15), especially mood and anxiety disorders, but only 3 disorders were associated with statistically significant increases in OR of termination (PTSD, conduct disorder, and oppositional-defiant disorder). Most disorders were associated with increased ORs of college dropout (8 of 15), but no disorder showed statistically significant associations.

Comparing the expected educational attainment in the absence of any mental disorder with that expected in the presence of mental disorders shows that the proportion of people dropping out of secondary education would decrease by 0.53% in the absence of mental disorders

TABLE 1. Prevalence of school dropout before completion of four educational milestones in Mexico, 2001–2002

Education group	Number at risk	Number terminated	Number censored ^a	Share terminated among those at risk		Share terminated among total part II sample	
				%	SE	%	SE
Terminate primary school	2 362	468	0	17.0	1.0	17.0	1.0
Terminate secondary school	1 894	1 192	0	62.1	1.6	51.5	1.5
Did not enter college	702	286	38	37.8	2.4	11.9	0.9
Did not finish college	378	116	42	27.2	2.8	5.0	0.6

Note: SE: standard error.

^a Censored observations are respondents who were 18 years old at the time of the interview or between 19 and 21 years old and in college.

TABLE 3. Estimated proportion of school dropout attributable to mental disorders, Mexico, 2001–2002^a

Educational level	Average probability of termination		Sum of termination probabilities		Percent change
	With disorders	Without disorders	With disorders	Without disorders	
Finish primary	0.18	0.17	414.27	413.09	0.29
Finish secondary	0.70	0.70	1 652.37	1 643.63	0.53
Enter college	0.82	0.81	1 926.58	1 921.62	0.26
Finish college	0.87	0.87	2 052.94	2 045.62	0.36

^a Probabilities estimated using logistic regression models described in the text.

(Table 3). The estimated decrements in school dropout at other milestones are smaller. The proportion failing to complete primary school would decrease by 0.29%, the proportion failing to enter college would decrease by 0.26%, and the proportion failing to graduate from college would decrease by 0.36%.

DISCUSSION

This study found evidence that mental disorders are associated with educational attainment in Mexico in two ways. First, consistent with prior international results (11) and the authors' initial hypothesis, impulse control disorders and substance use disorders are associated with a higher risk for school dropout, mainly secondary school dropout and, to a lesser degree, failure to enter college. Second, unlike some prior studies, anxiety disorders are associated with lower risk for school dropout, especially secondary school and, to a lower degree, primary school. In cross-cultural analyses, Lee and colleagues (11) also found that for social phobia, general anxiety disorder, and seasonal affective disorder, there were significant negative associations with termination in developing countries, indicating that in these countries people with these anxiety disorders were less likely to terminate their education. The results for PTSD in this study are an exception, being associated with lower risk for secondary school dropout and higher risk for failure to enter college. There are two possible interpretations of this inconsistent finding; the first is methodological and may be due to a low prevalence of PTSD in the population (1.5%), thus contributing to imprecise or spurious estimates for this less frequent disorder; the other is that perhaps something about the events that trigger PTSD, rather than the disorder it-

self, contributes to a higher risk of failure to enter college (such as natural disaster or death of a family member). Mood disorders were not significantly associated with school dropout at any of the four milestones. The lower risk or null risk of school dropout for internalizing disorders compared with impulse control and substance use disorders may also be related to the school system, structure, or personnel being more tolerant and accommodating of internalizing symptoms while less tolerant or accommodating of externalizing symptoms, which are likely to be disruptive in the classroom. Whether some of these associations, or the lack of associations, are due to differential reports of more educated people being more likely to report early symptoms of psychiatric disorders is beyond the scope of this inquiry but remains a matter for further research.

As some mental disorders are associated with a higher likelihood and others are associated with a lower likelihood of school dropout, taken together mental disorders appear to have only a small net effect on educational attainment in the population as a whole. The proportion of people dropping out of the school system in Mexico would decrease at most by 0.53% (at the secondary level) in the absence of mental disorders. These results for the secondary level are lower than those reported for Colombia, Lebanon, and Ukraine (developing countries included in the World Mental Health Surveys) but are higher than estimates for Germany, Italy, and Japan (developed countries in the World Mental Health Surveys) (11). The heterogeneity of results and the small population attributable risk found in Mexico may be a result of the effect being diminished or masked by the much greater effect of economic hardship and low cultural expectations for educational achieve-

ment. For example, in a national survey of youth aged 12 to 29, when school dropouts were asked their motives for leaving school, the number one reason (endorsed by 43%) was because they had to work. Another motive that may also be related to economic necessity, endorsed by 10%, was that they had to take care of their family. Several of the other most commonly endorsed reasons for leaving school may reflect cultural expectations for educational achievement: 29% responded that they no longer liked school, 17% that they had finished their studies, and 12% that their parents no longer wanted them to study. The positive pull of economic and familial pressures to enter the labor market before completion of educational milestones may be much greater in Mexico than the negative push away from education by mental disorders. It is possible that this pull is stronger for individuals whose relatively good mental health indicates a higher potential for future earnings. These forces could account for the unexpected association of anxiety disorders with lower risk of school dropout. Furthermore, they could also explain why these associations are in opposite directions in Mexico and the United States: in the US context, the pull into the labor market is much weaker than in Mexico because of the limitations of future earnings imposed by early termination of schooling.

Data from a merged sample of developed and developing countries participating in the WHM surveys (11) suggest that the Mexican results of less strong and less consistent associations between mental disorders and subsequent school dropout are not an outlier but are part of a more general pattern in developing countries. For most of these countries with very high rates of school dropout as in Mexico, especially at lower milestones such as primary and secondary education attainment, dropouts occur along with a low prevalence of psychiatric disorders compared with more developed nations (16). Apart from a possible underestimate of the prevalence of mental disorders, this finding suggests that other social factors, such as dropping out of school because of early pregnancy among females (23), poverty, and educational expectations may have more relevance for school dropout in Mexico (24). This is not to say that it is not useful to advocate for treatment of

mental disorders in schools in Mexico as this pattern of results also suggests that as educational credentials become more important for success in the labor market in Mexico and other developing countries, the negative impact of mental disorders is likely to increase.

The finding that impulse control and substance use disorders are associated with higher risk for school dropout is consistent with findings from developed (3) and developing countries (11). Individuals with these disorders may have to enter the labor market before they complete their education in all of these settings, but they are also likely to experience difficulties in the labor market. Studies of worker performance, for instance, have found that a worker's ability to consistently follow rules and complete assigned tasks—abilities that are impaired in patients with impulse control and substance use disorders—are associated with better performance after control for educational qualifications and cognitive ability (25). This pattern may depend on the nature of the work environment—for example, the service sector versus the manufacturing sector—and consequently on the types of jobs available in a particular locality.

Unfortunately, sample size limitations precluded further examination of possible demographic variations in the association between mental disorders and termination of schooling.

These results should be viewed in light of several limitations. First, an orderly academic progression was assumed and termination of this progression was analyzed. Other possible outcomes that may be related to psychiatric disorders, such as repetition of an academic year, below average grades, and possible interruption and delays in academic progression, were not assessed in this survey and may have resulted in an underestimate of the association between mental disorders and academic performance in Mexico. Second, these household surveys excluded homeless and institutionalized people, populations known to have a high prevalence of psychiatric disorders and low education. Third, this survey was cross-sectional and used data on retrospectively reported ages of onset that are subject to recall errors with regard to onset of disorders, which likely leads to more conservative results. A related issue is that, although a long instrument was used to assess many common

psychiatric disorders, some important and severe conditions, such as schizophrenia, which is characterized by a large prevalence of school dropouts, were not included (26). Fourth, even while the M-NCS is a large epidemiological survey, some of the estimated coefficients are imprecisely estimated, with large confidence intervals that do not allow one to be conclusive in these instances. Finally, educational termination or school failure could have led to episodes of psychiatric disorder, a matter not pursued in this study but one that is clearly important.

RECOMMENDATIONS

Despite the limitations, this study highlights school dropout as a prevalent problem in the region. For the first time in Mexico, comprehensive data on educational attainment and the role of mental disorders are provided that can be used to tailor educational policies based on research results rather than simple opinion. Impulse control disorders and substance use disorders in particular should be targeted by schools as a possible means to reduce the dropout rate.

REFERENCES

- Gurejo O, Von Korff M, Kola L, Demyttenaere K, He Y, Posada-Villa J, et al. The relation between multiple pains and mental disorders: results from the World Mental Health Surveys. *Pain*. 2008;135(1-2):82-91.
- Kessler RC, Foster CL, Saunders WB, Stang PE. Social consequences of psychiatric disorders, I: educational attainment. *Am J Psychiatry*. 1995;152(7):1026-32.
- Breslau J, Lane M, Sampson N, Kessler RC. Mental disorders and subsequent educational attainment in a US national sample. *J Psychiatr Res*. 2008;42(9):708-16.
- Forthofer MS, Kessler RC, Story AL, Gotlib IH. The effects of psychiatric disorders on the probability and timing of first marriage. *J Health Soc Behav*. 1996;37(2):121-32.
- Kessler RC, Walters EE, Forthofer MS. The social consequences of psychiatric disorders, III: probability of marital stability. *Am J Psychiatry*. 1998;155(8):1092-6.
- Fergusson DM, Woodward LJ. Mental health, educational, and social role outcomes of adolescents with depression. *Arch Gen Psychiatry*. 2002;59(3):225-31.
- Johnson JG, Cohen P, Dohrenwend BP, Link BG, Brook JS. A longitudinal investigation of social causation and social selection processes involved in the association between socioeconomic status and psychiatric disorders. *J Abnorm Psychol*. 1999;108(3):490-9.
- McLeod JD, Kaiser K. Childhood emotional and behavioral problems and educational attainment. *Am Sociol Rev*. 2004;69(5):636-58.
- Miech RA, Caspi A, Moffitt TE, Wright BRE, Silva PA. Low socioeconomic status and mental disorders: a longitudinal study of selection and causation during young adulthood. *Am J Sociol*. 1999;104(4):1096-131.
- Woodward LJ, Fergusson DM. Life course outcomes of young people with anxiety disorders in adolescence. *J Am Acad Child Adolesc Psychiatry*. 2001;40(9):1086-93.
- Lee S, Tsang A, Breslau J. An epidemiological study of mental disorders and failure of educational attainment in developed and developing countries. *Br J Psychiatry*. 2009;194(5):411-7.
- Martínez N. En aumento la deserción escolar, admite el SEP. *El Universal* 2007. October 16. Available from: www.el-universal.com.mx/nacion/155087.html Accessed 28 August 2008.
- Nigenda G, Ruiz JA, Bejarano R. Educational and labour wastage of doctors in Mexico. Towards the construction of a common methodology. *Hum Resour Health*. 2005;3:7-12.
- Ortiz-Hernandez L, Lopez-Moreno S, Borges G. Socioeconomic inequality and mental health: a Latin American literature review. *Cad Saude Publica*. 2007;23:1255-72.
- Medina-Mora ME, Borges G, Lara C, Benjet C, Blanco J, Fleiz C, et al. Prevalence, service use, and demographic correlates of 12-month DSM-IV psychiatric disorders in Mexico: results from the Mexican National Comorbidity Survey. *Psychol Med*. 2005;35(12):1773-83.
- Demyttenaere K, Bruffaerts R, Posada-Villa J, Gasquet I, Kovess V, Lepine JP, et al. Prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organization World Mental Health Surveys. *JAMA*. 2004;291(21):2581-90.
- Kessler RC, Ustun TB. The World Mental Health (WMH) Survey Initiative version of the World Health Organization (WHO) Composite International Diagnostic Interview (CIDI). *Int J Methods Psychiatr Res*. 2004;13(2):93-121.
- Courtney ME, Piliavin I, Grogan-Kaylor A, Nesmith A. Foster youth transitions to adulthood: outcomes 12 to 18 months after leaving out-of-home care. Madison, WI: School of Social Work, University of Wisconsin-Madison; 1998.

19. Andreasen NC, Endicott J, Spitzer RL, Winokur G. The family history method using diagnostic criteria: reliability and validity. *Arch Gen Psychiatry*. 1977;34(10):1229–35.
20. Kessler RC, Davis CG, Kendler KS. Childhood adversity and adult psychiatric disorder in the US National Comorbidity Survey. *Psychol Med*. 1997;27(05):1101–19.
21. Willett JB, Singer JD. Investigating onset, cessation, relapse, and recovery: why you should, and how you can, use discrete-time survival analysis to examine event occurrence. *J Consult Clin Psychol*. 1993;61(6): 952–64.
22. Research Triangle Institute. Software for Survey Data Analysis (SUDAAN), Version 8.1. Research Triangle Park, NC: RTI; 2002.
23. Molina S, Ferrada N, Perez V, Cid S, Casanueva E, Garcia C. The relationship between teenage pregnancy and school desertion. *Rev Med Chil*. 2004;132:65–70.
24. Buchmann C, Hannum E. Education and stratification in developing countries: a review of theories and research. *Annu Rev Sociol*. 2001;27:77–102.
25. Farkas G. Cognitive skills and noncognitive traits and behaviors in stratification processes. *Annu Rev Sociol*. 2003;29:541–63.
26. Goulding SM, Chien VH, Compton MT. Prevalence and correlates of school dropout prior to initial treatment of nonaffective psychosis: further evidence suggesting a need for supported education. *Schizophr Res*. 2010;116(2–3):228–33.

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RESUMEN

Influencia de los trastornos mentales en el abandono escolar en México

Objetivo. Estudiar la repercusión de los trastornos mentales en el fracaso escolar en México.

Métodos. De septiembre del 2001 a mayo del 2002, se evaluaron los diagnósticos y la edad de aparición para cada uno de los 16 trastornos del DSM-IV mediante autoinformes retrospectivos recogidos por medio de la Entrevista Diagnóstica Internacional Compuesta (CIDI). Se empleó el análisis de supervivencia para analizar las asociaciones entre los trastornos del DSM-IV/CIDI de aparición temprana y el subsiguiente abandono escolar o fracaso en el logro de los hitos educativos.

Resultados. Más de uno de cada dos mexicanos no completó la educación secundaria. Más de una tercera parte de los que terminaron la educación secundaria no entraron en la universidad y uno de cada cuatro estudiantes que entraron en la universidad no llegó a graduarse. Los trastornos de control de los impulsos y los trastornos relacionados con el consumo de sustancias se asociaron con un mayor riesgo de abandono escolar, principalmente de abandono de la escuela secundaria y, en menor grado, de fracaso en entrar en la universidad. Los trastornos de ansiedad se asociaron con un menor riesgo de abandono escolar, especialmente de abandono de la escuela secundaria y, en menor grado, de la escuela primaria.

Conclusiones. La heterogeneidad de los resultados observados en México puede deberse a que el efecto de los trastornos mentales queda disminuido u oculto ante el efecto mucho mayor de las dificultades económicas y las reducidas expectativas culturales en cuanto al rendimiento escolar. En el futuro, la investigación debe inquirir más a fondo las posibles razones con objeto de mejorar el desempeño de los estudiantes aquejados de trastornos de ansiedad en los países en desarrollo.

Palabras clave

Encuestas demográficas; psicopatología; escolaridad; abandono escolar; México.