

Editorial

Mental Health Study Process into Prevalence of Mental Disorders in Iran

Ahmad Ali Noorbala MD¹, Shahin Akhondzadeh PhD¹

See pages 76 – 84.

Study by esteemed researchers regarding 12-month prevalence of mental disorders in Iran, which is novel in its own kind, prompted us to present an investigational summary of mental disorder epidemiological research in Iran for our readers in this journal issue.¹

There are some limitations in this study including about 18% non-response in the survey. Nevertheless, if you consider this study along with other previous studies in Iran you will obtain a real imagination regarding prevalence of mental disorders in Iran. Iranian mental disorder epidemiological studies can be divided into two rounds based on time of study execution: the first round includes studies executed for a decade from 1962 to 1971 before the Islamic Revolution which reported mental disorder prevalence rates between 11.9 to 18.6 in one hundred individuals. The second round of studies was conducted from 1992 to 1999 in this country. In this second round of studies, prevalence rates of mental disorders fluctuated between 12.5 to 30.2 in one hundred individuals. These studies not only covered a certain study population, but also differed in regards to materials and methods used.²

From 1999 to now, three nationwide comprehensive epidemiologic studies using a variety of trustworthy tools for determination of mental disorder prevalence across the nation has taken place. The first comprehensive nationwide study by Noorbala, et al., was conducted in 1999 within the frame work of a National Health Survey including, "Mental Health Survey in Iran." In this mental health study, 35,014 people, equivalent to one thousandths of country's number of families, were randomly sampled from people 15 years old and above from families residing in agrarian areas and provincial cities of the country and prevalence of mental symptoms was investigated using a twenty-eight item general health questionnaire (GHQ-28).

The results of the above study, conducted with traditional grade assignment technique and with use of grade cut-off of six, indicated that 21% of individuals studied (25.9% women and 14.9% men) demonstrated signs of mental health problems. Prevalence rate of mental health signs in rural areas is 21.3% and in urban areas is 20.9%. The highest prevalence rates of mental health problems in the country are related to Chaharmahal va Bahkhtiari Province with 38.9% and Golestan Province with 37.3% and the lowest prevalence rate is in Yazd province with 11.7%. Furthermore, prevalence rate of mental health problems in Tehran province has been reported to be 21.5%, which is approximately equivalent to the national average. Prevalence of signs of depression and anxiety was more than somatization symptoms and so-

cial dysfunction. Also in the above mentioned study, in the interview conducted by general physicians, 1.4% of individuals living in families studied suffer from mental retardation, 1.2% suffers from epilepsy, and 0.6% suffers from psychotic disorders. In addition, the results from the mentioned study demonstrated that the prevalence rate of mental health disorders in divorced and widowed individuals (20.5%) is more than married and single individuals (18%). Similarly, prevalence of these signs in housewives was more than other professions and in the illiterate was more than the educated.³

The second national study was conducted by Mohammadi, et al., in 2001. The statistical population in this study was individuals 18 years old or older. In this study, 25,180 individuals were chosen among existing families in the country by random systematic and cluster sampling. Research method used was the questionnaire for affective disorders and schizophrenia (SADS) which a collection of questions encompassing epilepsy, mental retardation, neuro-cognitive dysfunctions and post-traumatic stress disorder (PTSD) based on DSM-IV was added to it. The finalized questionnaire contained 904 questions which, collectively, measured the disorders was 17.1% (10.86% in men, 23.4% in women). Prevalence of mood disorders was 4.35%, prevalence of a variety of psychotic disorders was 0.89%, prevalence of various stress disorders was 8.31%, and prevalence of various neuro-cognitive dysfunctions was 2.78% and prevalence of various analytical dysfunctions was observed to be 0.77%. Prevalence rate in urban areas was 12.59% and in rural areas was 9.36%. In regards to marital status in this study, prevalence of psychiatric disorders in divorced or separated individuals was 22.31%, in singles was 8.74%, and in married individuals was 11.31%. In regards to employment, the highest psychiatric disorder prevalence rate was in unemployed men with 12.05% and housewives with 15.48%.⁴

The third national study undertaken by Rahimi and colleagues in 2011 (published in this journal issue) is on 7,886 Iranians residing in Iran ranging between 18 to 64 years old based on three-stage random sampling technique. Techniques used to screen for mental disorders in this study consisted of: Composite International Diagnostic Interview (CIDI), Shihan Disability Scale, Mood Disorder Questionnaire (MDQ), and questionnaires screening Suicide and Violence. General results of this third study reported prevalence of psychiatric disorders at 23.6%.

From another side, until now, three studies have been conducted to investigate prevalence rate of psychiatric markers in Tehran in epidemiologically equivalent communities (15 years old and above) using an equivalent questionnaire (GHQ-28 questionnaire) with an equivalent scoring technique. With attention to the fact that the first national study in the year 1999 in Tehran was conducted by Noorbala, et al., with sample size of 5,560 individuals, prevalence of psychiatric disorders in the city of Tehran

Authors' affiliation: Psychiatric Research Center, Roozbeh Hospital, Tehran University of Medical Sciences, Tehran, Iran.

Corresponding author and reprints: Ahmad Ali Noorbala MD, Psychiatric Research Center, Roozbeh Hospital, Tehran University of Medical Sciences, South Kargar Ave., Tehran 13337, Iran. Tel: +98-21-5541222, E-mail: noorbala@tums.ac.ir

(21.5%) was very close to the total national average (21% [27.6% women, 14.9% men]).⁵ Prevalence of these disorders in the city of Tehran could, to some extent, explain their prevalence in the entire country. In the second study in 2008, Noorbala, et al., as part of a measurement of Equity in Health project in city of Tehran, with a sample size of 19,370 individuals, reported these disorders at a prevalence of 34.2% (37.9% women, 28.6% men).⁶ Finally, the third study by Noorbala and colleagues was conducted in 2011 within the frame work of the second round of the measurement of Equity in Health in city of Tehran.² Project with a sample size of 20,589 individuals. Prevalence of these disorders was demonstrated to be 39.6% (42.4% women, 36.4% men).⁷

Presence of differences in obtained results in the three national studies can be contributed to techniques and tools used for screening and diagnosis of psychiatric disorders and also to differences in community epidemiology. For example, since GHQ-28 is a screening tool, it could report a higher number relative to diagnostic tools such as CIDI or SADS. On the other hand, with attention to the fact that GHQ-28 measures prevalence in the past month, it could show a lower prevalence number relative to tools like CIDI which measures prevalence in the past 12 months and SADS which measures prevalence in total life.

With attention to equivalent community epidemiology and tools used, in the three consecutive studies in Tehran, which to some extent, have had a close national average and comparable results of these studies with other countries, it is possible to conclude that national prevalence of psychiatric signs and disorders in recent years, unfortunately, shows an increasing trend.⁸ From one side, increasing prevalence of psychiatric signs and disorders in rural residents relative to the urban population in two studies (Noorbala, 1999 and present study by Rahimi, et al., in this issue), contrary to expectations, demonstrates ever growing stress in rural areas while experiencing deprivation from welfare facilities existing in cities in recent years. Considerably high psychiatric signs and symptoms in married individuals relative to singles in all three aforementioned studies, contrary to other international studies, tells the tale of pathology and impaired relationship between family members and economic problems in the Iranian society. High prevalence rates in the elderly, unemployed, and women,

especially housewives, are common findings in all three studies calling special attention of involved individuals in the country to economic reform and mental health provisions for women. Finally, low prevalence rate of psychotic disorders in the three aforementioned studies (0.6, 0.98, and 0.5), though could be due to possible methodological problems, points out the crucial need to re-evaluate psychiatric teaching in Iran which for the most part happens in hospitals with hospitalized psychotic patients.

With attention to the growing trend of psychiatric disorders in Iran, and the necessity to diligently observe these disorders with a uniform technique, it is recommended that firstly, once every 2 to 3 years, with use of reliable screening tools like GHQ-28 examine prevalence rate of psychological signs, and once every 5 years, examine prevalence rate of psychiatric disorders with use of tools like CIDI. Simultaneously, taking advantage from these results, trustees of the healthcare system can pay attention to amelioration of mental health affairs.

References

1. Sharifi V, Amin-Esmaili M, Hajebi A, Motevalian A, Radgoodarzi R, Hefazi M, Rahimi-Movaghar A. Twelve-month prevalence and correlates of psychiatric disorders in Iran: The Iran mental health survey, 2011. *Arch Iran Med.* 2015; **18**(2): 76 – 84.
2. Noorbala AA, Mohammad K, Bagheri Yazdi SA, Yasamy MT. A View of Mental Health in Iran, 2001, Tehran, Iran
3. Noorbala AA, Bagheri Yazdi SA, Yasamy MT, Mohammad K. Mental health survey of the adult population in Iran. *Br J Psychiatry.* 2004; **184**: 70-3.
4. Mohammadi MR, Davidian H, Noorbala AA, Malekafzali H, Naghavi HR, Pouretamad HR, Yazdi SA, et al. An epidemiological survey of psychiatric disorders in Iran. *Clin Pract Epidemiol Ment Health.* 2005; **1**: 16.
5. Noorbala AA, Mohammad K, Bagheri Yazdi SA. Prevalence of psychiatric disorders in Tehran city. *Hakim.* 2000; **2**(4): 212 – 223.
6. Noorbala AA, Bagheri Yazdi S, Asadi Lari M, Vaez Mahdavi M. Mental Health Status of Individuals Fifteen Years and Older in Tehran-Iran (2009). *IJPCP.* 2011; **16**(4): 479 – 483.
7. Noorbala AA, Bagheri-Yazdi SA, Vaez-Mahdavi MR, Asadi-Lari M, Faghihzadeh S, Mohammad K, et al. Mental health changes in Tehran during a 12-year period: Comparing national health and disease survey in 1999 and equality project in 2011. *Sci Res J Shahed Univ.* 2014; **112**: 37 – 45.
8. Noorbala AA, Damari B, Riazi-Isfahani S. Evaluation of mental disorders incidence trend in Iran. *Sci Res J Shahed Univ.* 2014; **112**: 1 – 11.