Eur. J. Psychiat. Vol. 28, N.° 1, (66-70)
2014

Letter to the Editor

Primary Prevention Takes a Leading Role in World Mental Health Action

Itzhak Levav*
Benedetto Saraceno**

* Department of Community Mental Health, Faculty of Social Welfare and Health Sciences, University of Haifa, Haifa

** Calouste Gulbenkian Chair of Global Health, School of Medical Sciences, Nova University, Lisbon

ISRAEL
PORTUGAL

The World Health Organization (WHO) Comprehensive Mental Health Action Plan 2013-2020 establishes the "implementation of strategies for … prevention in mental health" among its four objectives[1]. This policy decision recognizes the expanding knowledge-base[2,3], and acknowledges the need to cover the still pending social debt of the mental health systems. WHO concurred with international experts who ranked the "grand challenges" in mental health care ("*specific barriers that, if removed, would … solve an important health problem*"). Primary prevention was ranked ahead of the identification of biomarkers (ranked 18th) and the redesign of the health systems (ranked 20th)[4].

Several domains support the bases for primary prevention action.

The absence of programs of primary prevention in the mental health system constitutes a human rights (HHRR) transgression. The Convention on the Rights of Persons with Disabilities[5], highlights the interconnectedness between HHRR and primary prevention, e.g., articles 16 (*prevention of abuse*); 23 (*respect for home and the family)*; 24 (*education)*; 25 (*health)*; and 28 (*adequate standard of living and social protection*). Importantly, the Convention on the Rights of the Child[6] turns primary prevention into a chief HHRR issue. Almost all items of

Received: 18 April 2013
Revised: 10 November 2013
Accepted: 12 November 2013

its preamble are relevant, such as: "*Recognizing that the child, for the full and harmonious development of his or her personality should grow up in a family environment, in an atmosphere of happiness, love and understanding*". It thus emerges that mental health, in partnership with other health and social sectors should advocate and assist families that fail to provide a nurturing and safe environment for their young. Furthermore, article 19 establishes: "*State Parties shall take all appropriate …social and educational measures to protect the child from all forms of physical or mental violence, injury or abuse, neglect or negligent treatment, maltreatment or exploitation, including sexual abuse, while in the care of parent(s), legal guardian (s) or any other person who has the care of the child*". Also, article 24/2f establishes: State Parties should "*develop preventive care, guidance for parents and family planning education and services"*. Clearly, this Convention tells the signatory nations to develop public policies to assure the satisfaction of children's needs.

Obstacles remain on the way to answer the mental health needs of the populations. Recent epidemiological studies, e.g., the World Mental Health Survey (WMHS)[7], have highlighted anew that no country is immune to mental and behavioral disorders. In addition, the WMHS found that the treatment gap (the difference between true and treated prevalence) was high, including in countries with well-developed services[8]. Therefore, mental health services should acknowledge that for many disorders more persons are not treated than treated included for schizophrenia[9] and among vulnerable population groups, such as individuals with cancer[10]. With regard to the young, the gap is even higher than among adults (e.g., 11).

To compound this picture, stigma and discrimination constitute barriers that delay help-seeking or generate social exclusion[12], while the problem of premature mortality among persons with severe mental disorders constitutes a "public health challenge"[13]. Furthermore, despite progress in psychopharmacology, the newer drugs have yet to meet early expectations. As for psychosocial interventions, they are infrequently used[14]. WHO, that had identified deficits in the mental health systems in most countries[15-17] said: "*Given the current limitations in effectiveness of treatment modalities for decreasing disability due to mental and behavioral disorders, the only sustainable method for reducing the burden caused by these disorders is prevention"*[2].

Important research findings, from e.g., epidemiology, child development, neurosciences, genetics, converge indicating that modifiable conditions, such as child maltreatment -selected here as an example of a specific target problem for primary prevention- are responsible for many mental disorders. The number of abused children is staggering. In the US (2010), child protective services received an estimated 3.3 million reports (43.8 per 1,000) of abused or neglected children[18]. Likely, the figures are a sub-estimation.

Epidemiologic studies have shown that child or adolescent abuse have significant impact on children[19,20] (e.g., externalizing behaviors, disruptive behavior, conduct and academic problems in school, depressive symptoms), and on adolescents (e.g., delinquent behavior, drug use, academic maladjustment, depression). In addition, there are late effects among adults, among others: affective and anxiety disorders, suicide behavior, substance abuse disorders[21-23], and even psychosis[24]. Also, general health effects have been identified. A recent study[25] found that adjusting for confounders, significant positive relationships emerged between reports of childhood abuse and multisystem health risks [B (SE) = 0.68 (0.16); $P < 0.001$]. In conclusion, the effect of abuse contributes to the prevalence rates of mental and behavioral disorders.

Recall here that abuse leaves biological traces in the brain-hormonal systems, and in changes in the function and neuro-anatomy of brain locations, such as the amygdale, the hippocampus, the corpus callosum, and the prefrontal cortex[26]. Importantly, the case for action in primary prevention has been gaining solid scientific foundations thanks to the genetic by environment (G by E) studies, with contributions to both risks[27,28] and resilience[29]. Furthermore, the epigenetic changes caused by abuse may be carried over from one generation to the next, perpetuating a cycle of violence[30].

In sum, while the research findings on the effect of abuse build a case of "toxic stress", also programs to reduce/eliminate abuse and its short- and long-term adverse effects have shown robust effects[31,32]. The Triple Parenting Program (PPT), purported to provide universal, indicative and selective prevention, has been found helpful[33]. Earlier, a program trial of indicative prevention among young mothers has shown positive outcome at age 15 of the offspring[34]. As a result of cutting-edge research, the American Academia of Pediatrics proposed a new route to bring about a change in the practice of pediatricians[35,36], which may be mimicked by psychiatrists.

Lastly, the new era of mental health service delivery is auspicious for the inclusion of primary prevention programs. Psychiatric reform charts a new course for care by bringing it into the community. But to do more of the same, restricting the focus to curative care and rehabilitation, will be self-defeating, the social debt will remain outstanding and the human rights violations will continue. In contrast, the link between primary health care and mental health provides a unique opportunity to plan evidence-based programs of primary prevention that will contribute to answer the mounting mental health needs of the population. To conclude, WHO Plan of Action[1] could make a difference.

References

1. World Health Organization. Comprehensive Mental Health Action Plan 2013-2020. Geneva: Sixty-sixth World Health Assembly; May 2013.

2. Institute of Medicine. Reducing risks for mental disorders. Frontiers for preventive intervention research. Washington DC: National Academy of Sciences; 1994.

3. World Health Organization. Prevention of mental disorders: effective interventions and policy options. World Health Organization, Department. of Mental Health and Substance Abuse in collaboration with the Prevention Research Centre of the Universities of Nijmegen and Maastricht. Geneva; 2004.

4. Collins PY, Patel V, Joestl SS, March D, Insel TR, Daar AS. Grand challenges in global mental health. Nature 2011; 475: 27-30.

5. United Nations: Convention on the Rights of Persons with Disabilities. http://www.un.org/disabilities/convention/conventionfull.shtml. Accessed on November l 10, 2013.

6. United Nations: Convention on the Rights of the Child. www.coe.int/t/dg3/children/participation/CRC-C-GC-12.pdf. Accessed on November 10, 2013.

7. Kessler RC, Ustun TB. The WHO world mental health surveys. Global perspectives on the epidemiology of mental disorders. Cambridge: Cambridge University Press; 2008.

8. Kohn R, Saxena S, Levav I, Saraceno B: The treatment gap in mental health care. Bull World Health Org 2004; 82: 858-866.

9. Lora A, Kohn R, Levav I, McBain R, Morris J Saxena S. Accessibility, patterns of care and the treatment gap in schizophrenic disorders: A WHO-AIMS survey in 50 low- and middle-income countries Bull World Health Org 2012; 90:47-54.

10. Nakash O, Levav I, Aguilar-Gaxiola S, Alonso J, Andrade LH, Angermeyer MC, *et al*. Comorbidity of common mental disorders with cancer and their treatment gap: findings from the World Mental Health Surveys. Psychooncology 2014; 23: 40-51.

11. Farbstein I, Mansbach-Kleinfeld I, Levinson D, Goodman R, Levav I, Vograft I, *et al*. Prevalence and correlates of mental disorders in Israeli adolescents: results from a national mental health survey. J Child Psychol Psychiatry 2010; 51: 630-639.

12. World Health Organization. World Health Report 2001. New understanding, new hopes. Geneva: World Health Organization; 2001.

13. Insel TR, Landis SC Twenty-five years of progress: The view from NIMH and NINDS. Neuron 2013; 80: 561-567.

14. Goisman RM, Warshaw MG, Keller MB. Psychosocial treatment prescriptions for generalized anxiety disorder, panic disorder, and social phobia, 1991-1996. Am J Psychiatry 1999; 156: 1819-1821.

15. World Health Organization. Mental health systems in selected low- and middle-income countries: a WHO-AIMS cross-national analysis. Geneva: World Health Organization; 2009.

16. World Health Organization. Mental health atlas 2011. Geneva: World Health Organization; 2011

17. Sharan P, Levav I, Olifson S, de Francisco A, Saxena S, eds. Research capacity for mental health in low- and middle-income countries. Results of a mapping exercise. Geneva: Global Forum for Health Research and World Health Organization; 2007.

18. U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. Child Maltreatment 2010. Washington, DC: Department of Health and Human Services; 2011. Available from www.acf.hhs.gov/programs/cb/pubs/cm10/index.htm.

19. Cicchetti D, Lynch M. Failures in the expectable environment and their impact on individual development: The case of child maltreatment. In: Cicchetti D, Cohen DJ, eds. Developmental Psychopathology, Volume 2: Risk, Disorder, and Adaptation. New York: Wiley; 1995. p. 32-71.

20. Thornberry TP, Ireland TO, Smith CA. The importance of timing: The varying impact of childhood and adolescent maltreatment on multiple problem outcomes. Dev Psychopathology 2001; 13: 957-979.

21. Dube SR; Anda RF, Felitti VJ, Chapman DP, Williamson DF, Giles WH. Childhood abuse, household dysfunction, and the risk of attempted suicide throughout the life span. Findings from the adverse childhood experiences study. JAMA 2001; 286: 3089-3096.

22. Edwards VJ, Holden GW, Felitti VJ, Anda RF. Relationship between multiple forms of childhood maltreatment and adult mental health in community respondents: results from the adverse childhood experience study. Am J Psychiatry 2003; 160: 1453-1460.

23. Molnar BE, Buka SL, Kessler RC. Child sexual abuse and subsequent psychopathology: Results from the national comorbidity survey. Am H Pub Health 2001; 91: 753-760.

24. Varese F, Smeets F, Drukker M, Lieverse R, Lataster T, Viechtbauer W, *et al*. Childhood Adversities Increase the Risk of Psychosis: A Meta-analysis of Patient-Control, Prospective- and Cross-sectional Cohort Studies. Schiz Bull 2012; 38(4): 661-671.

25. Carroll JE, Gruenewald TL, Taylor SE, Janicki-Deverts D, Matthews KA, Seeman TE. Childhood abuse, parental warmth, and adult multisystem biological risk in the Coronary Artery Risk Development in Young Adults study. Proc Natl Acad Sci U S A 2013; 110(42): 17149-17153.

26. McCrory E, De Brito SA, Viding E. The impact of childhood maltreatment: A review of neurobiological and genetic factors. Frontiers in Psychiatry 2011; 2: 48-56.

27. Caspi A, McClay J, Moffitt TE, Mill J, Martin J, Craig IW, *et al*. Role of genotype of violence in maltreated children. Science 2002; 297: 851-854.

28. Caspi A, Sugden K, Moffitt TE, Taylor A, Craig IW, McClay J, *et al*. Influence of life stress on depression: Moderation by a polymorphism in the 5-HTT gene. Science 2003; 301: 386-389.

29. Kaufman J, Yang BZ, Douglas-Palumberi H, Grasso D, Lipshitz D, Houshyar S. Brain-derived neurotrophic factor-5HTTLPR gene interactions and environmental modifiers of depression in children. Biol Psychiatry 2006; 673-680.

30. Spatz-Widom C, Maxfield MG. Un update on the "Cycle of violence", 2001 in http://www.ojp.usdoj.gov/nij. Accessed on April 10, 2013.

31. Shonkoff JP, Gerner AS, Siegel BS, Dobbins MI, Earls MF, McGuinn L, *et al*. The lifelong effects of early childhood adversity and toxic stress. Pediatrics 2012; 129; e 232.

32. Geeraert L, Van den Noortgate W, Grietens H, Onghena P. The effects of early prevention programs for families with young children at risk for physical child abuse and neglect: A meta-analysis. Child Maltreat 2004; 9: 277-291.

33. Prinz RJ, Sanders MR, Shapiro CJ, Whitaker DJ, Lutzker JR. Population-based prevention of child maltreatment: The U.S. Triple P System Population Trial. Prevention Science 2009; 10: 1-12.

34. Olds DL, Henderson CR, Cole R, Eckenrode J, Kitzman H, Luckey D, *et al*. Long-term effects of nurse home visitation on children's criminal and antisocial behavior: 15-year follow-up of a randomized controlled trial. JAMA 1998; 280(14): 1238-1244.

35. Shonkoff JP, Boyce WT, McEwen BS. Neuroscience, molecular biology, and the childhood roots of health disparities. Building a new framework for health promotion and disease prevention. JAMA 2009; 301: 2252-2259.

36. Selph SS, Bougatsos Ch, Blazina I, Nelson HD. Behavioral interventions and counseling to prevent child abuse and neglect: A systematic review to update the U.S. preventive services task force recommendation. Ann Intern Med 2013; 158: 179-190.

Author for correspondence:
Itzhak Levav, M.D.
Department of Community Mental Health
Faculty of Social Welfare and Health Science
University of Haifa
Haifa, Israel
E-mail: tuncho_levav@yahoo.com