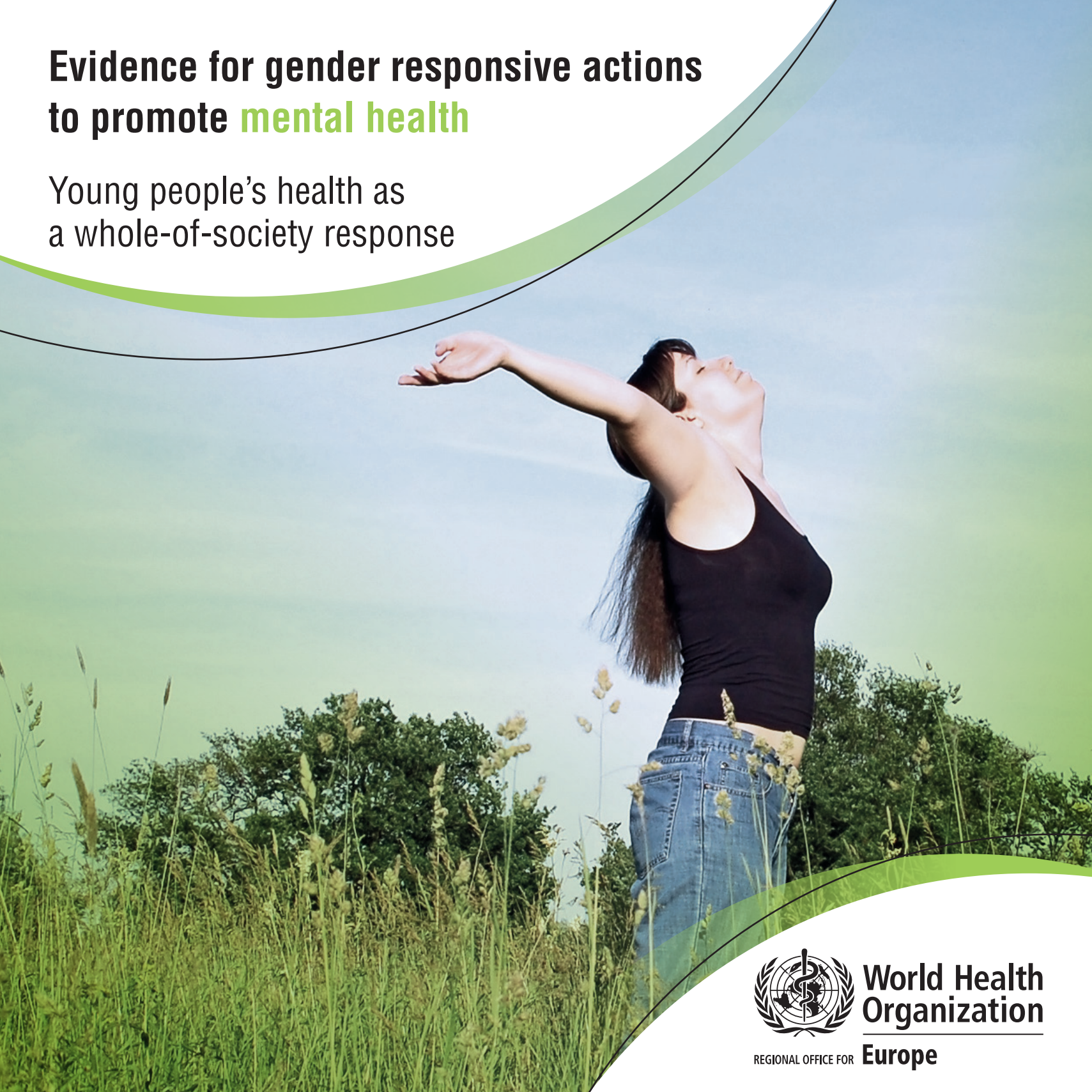
Evidence for gender responsive actions to promote mental health

Young people's health as a whole-of-society response



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Abstract

The WHO Regional Office for Europe supports Member States in improving adolescent health by recommending comprehensive, multisectoral and evidence-informed adolescent health approaches; by delineating the critical contribution of the health sector; by fostering actions towards reducing inequalities; and by addressing gender as a key determinant of adolescent health. This publication aims to support this work in the framework of the *European strategy for child and adolescent health and development*, and is part of the WHO Regional Office for Europe contribution to the development of a new policy framework for Europe, *Health 2020*, for which the WHO Regional Office for Europe has been mandated by the 53 Member States.

The publication summarizes current knowledge on what works in preventing and managing mental health problems. It is part of a series that includes social and emotional well-being, chronic conditions and disabilities, adolescent pregnancy, HIV/STIs, overweight and obesity, violence, injuries and substance abuse.
The publication assumes the position that young people's health is the responsibility of the whole society, and that interventions need to be gender responsive in order to be successful. It therefore looks at actions at various levels, such as cross-sector policies, families and communities actions, and interventions by health systems and health services. The publication does not prescribe nor recommend any particular course of action, which needs to be informed by the country specific context. It rather provides a basis to stimulate countries to further refine national policies so that they contribute effectively to the health and well-being of young people.

Acknowledgment

This publication was developed under the guidance of Valentina Baltag (Adolescents' health) and Isabel Yordi Aguirre (Gender and health) from the WHO Regional Office for Europe.

Many international experts and WHO staff members have contributed to the series **Young people's health as a whole-of-society responce**, and we are very grateful for their valuable inputs, support and guidance. The conceptual foundation for this publication was based on the Action Tool of the European strategy for child and adolescent health and development http://www.euro.who.int/__data/assets/pdf_file/0011/81848/Action_Tool.pdf.

For the Mental health part of the series, we are particularly grateful to prof. Pierre-Andre Michaud and EUTEACH group http://www.euteach.com/euteach_home/euteach_network.htm who developed the first draft of the summary table of interventions and good practices, Lourdes Cantarero who conducted literature reviews on gender, adolescents and mental health and Meena Cabral de Mello, Ledia Lazeri and Petra Kolip for their valuable comments during the peer review process.

Foreword

In May 2011, the World Health Assembly adopted a resolution urging Member States to accelerate the development of policies and plans to address the main determinants of young people's health.

This series of publications, advocating a whole-of-society response to young people's health, and looking at the evidence for gender responsive actions, will be a timely resource for Member States as they implement both the resolution and the European strategy for child and adolescent health and development. The publications clearly show that not only are the health, education, social protection and employment sectors jointly responsible for the health of adolescents, but that effective interventions do exist. Ensuring that adolescents who are pregnant or have children can stay in or return to school, or enacting regulations to limit unhealthy snacks and soft drinks in school cafeterias are examples of policies that are beyond the mandate of health systems and yet generate health. By bringing evidence to the attention of policy-makers, these publications take a practical step toward achieving one of the core aims of the new European policy for health, Health 2020: to promote and strengthen innovative ways of working across sector and agency boundaries for health and well-being.

A common shortcoming of adolescent health programmes across the WHO European Region is that they often look at adolescents as a homogeneous cohort. Far too often programmes are blind to the fact that boys and girls differ in their exposure and vulnerability to health risks and conditions, such as depressive disorders, injuries, substance abuse, eating disorders, sexually transmitted infections, violence and self-inflicted injuries, including suicide. They are affected differently not only by the socioeconomic circumstances of their community and their ethnicity but also by gender norms and values. Research shows this, yet there is insufficient progress in transforming knowledge into policy action. I hope this publication will be a useful tool to facilitate this transformation.

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Introduction

The WHO Regional Office for Europe supports Member States in improving adolescent health in four main ways: by recommending comprehensive, multisectoral and evidence-informed adolescent health approaches; by delineating and supporting the critical contribution of the health sector, including the leadership role of ministries of health to influence other sectors, such as education, employment and social protection policies; by fostering actions towards reducing inequities in health both within and between countries; and by addressing gender as a key determinant of adolescent health..

By bringing together and coherently interconnecting knowledge and evidence on effective interventions and good practices for the better health, equity and well-being of young people, this publication aims to support this work using the framework of the *European strategy for child and adolescent health and development*. It is also part of the WHO Regional Office for Europe's contribution to the development of a new policy framework for Europe, Health 2020, for which the WHO Regional Office for Europe has been mandated by the 53 Member States (resolution EUR/RC60/R5).

The publication summarizes current knowledge on what works in promoting mental health and managing mental health problems. It is part of a series that includes social and emotional well-being, chronic conditions and disabilities, adolescent pregnancy, HIV/STIs, mental health, overweight and obesity, violence, and injuries and substance abuse.

The publication includes two parts. The first part is a summary table of effective interventions and good practices in promoting mental health and managing mental health problems. The table emphasizes intersectoral governance and accountability for young people's health and development, and takes a *whole-of society* approach to young people's health. It therefore looks at actions at various levels, such as cross-sector policies, families and communities actions, and interventions by health systems and health services. It demonstrates that health systems in general, and health ministries in particular, can work proactively with other sectors to identify practical policy options that maximize the positive health effects of other policies on young people's well-being, and minimize any negative effects. Interventions need to be gender responsive in order to be successful; the publication therefore looks at presented practices through a distinct gender perspective.

The second part explains the impact of gender norms, values and discrimination on the health of adolescents relevant to mental health. Through a review of the existing evidence, it looks at why is it important to look at gender as a determinant of adolescent's health, what are the main differences between girls and boys in exposure to risk, norms and values and access to services, and what are the different responses from the health sector and the community. It complements the Gender Tool of the European strategy for child and adolescent health and development http://www.euro.who.int/__data/assets/pdf_file/0020/76511/EuroStrat_Gender_tool.pdf. It gives readers a deeper understanding of the gender dimension of actions listed in Part I.

The evidence base of this publication includes a review of existing literature, such as scientific and research articles and books, policy reviews, evaluations, and 'grey' literature. It needs to be emphasized that this is not a comprehensive and systematic review of the evidence in the area of mental health, nor of approaches to support policies and their implementation. The publication does not rank presented interventions and good practices in any priority order, and does not assess them against the strengths of the evidence behind them. The publication does not prescribe nor recommend any particular course of action, which needs to be informed by country specific context. It rather provides a basis to stimulate countries to further refine national policies and strategies so that they contribute effectively to the health and well-being of young people.

Mental health

PRIORITY	CROSS SECTOR ACTIONS		FAMILY & COMMUNITY ACTIONS	HEALTH SYSTEM ACTIONS	HEALTH SERVICES ACTIONS
	HEALTH IN ALL POLICIES	SCHOOL SETTING			
Promote mental health, and prevent self-harm and suicide	Ensure that data/information on prevalence, determinants, interventions and programmes on adolescent mental health problems is collected, analysed and used in policy development [33] Implement systematic assessment of mental health, considering differential needs and stressors for young boys and girls [1, 18, 19] Design educational systems that address the needs of adolescents with developmental and mental disorders, in order to ensure universal completion of primary schooling by boys and girls alike [21] Limit access to means to commit suicide, taking into consideration differential gender patterns [5, 23] Develop gender sensitive awareness campaigns on mental health problems, including of women and children in post-conflict or disaster contexts [1, 20] Develop gender sensitive social marketing interventions to promote early detection of mental health problems and care seeking behaviour [2-4, 22] Enhance gender sensitive national suicide prevention campaigns [3, 5, 23] and use the media and technology as conduits of information about risk factors and prevention strategies for mental and behavioural health problems, especially for substance abuse and suicidal behaviours in adolescents [33] Prevent glamorized and over publicized reporting of suicides in the media to reduce adolescent suicide ideation and attempts [33]	Ensure emotional well-being as part of health promoting schools initiatives[4, 6, 7, 9] Promote interventions to improve the school climate and promote emotional literacy in young people and school staff [4, 6-8] Provide school based mental health and counselling services [33] Identify high risk adolescents[1] and provide support to both the adolescent and family [33] Implement school-based HIV prevention programs to teach safe sex negotiating skills and reduce anxiety [33] Implement school based substance abuse programmes for prevention and care [33] Implement gender specific strategies to reduce bullying [10, 11], and prevent (predominantly) internalizing disorders (depression) among girls and (predominantly) externalizing disorders (aggression) among boys [24] Investigate adolescents perceptions on the prevention of suicide and deliberate self-harm, and design school-based interventions in line with their preferences [25, 26,27] Address stigma and discrimination through education and inclusion [33]	Encourage self help organizations [7] Implement multi targeted interventions in the community [2, 3, 7, 8], including for reducing stigma and discrimination against adolescents with mental disorders, with focus on ethnic minorities [28, 29] Promote parents' mental health literacy[2][33] Supply young/older parents with support and advice[3] [4, 7] Implement family and parenting interventions for juvenile delinquents and their families [12] Implement interventions to tackle risk factors for maternal depression, such as gender-based violence, in order to prevent mental health problems across generations [13] Encourage collaboration between school health services, the pupil with recurrent mental health complaints and the family [30]	Gather, analyse and report up to date epidemiological and social science data on the incidence, prevalence, antecedents and consequences of mental health problems in adolescents [33] Address mental health of adolescents in the context of health system reform [33] Develop & implement specific services targeting the mental health of young people [3, 7] Improve access to multidisciplinary mental health services for young people [4, 7, 13] Develop training programs in the field of mental health promotion and treatment of adolescents, including the issue of suicide [4, 14, 15] Address the challenges of cross-cultural psychiatry and investigate reasons for inter-ethnic differences [19, 31,32]	Put in place referral mechanism to community services and other sectors [16] Develop specific services for adolescent self-harm within hospitals and ambulatory services [17] Integrate mental health prevention and care interventions in primary care and within sexual and reproductive health services attended by adolescents [33]

[1] e.g. adolescents with family dysfunction, school difficulties, problems in peer relationships, or living in abusive circumstances

[2] includes increased awareness of the emotional needs of adolescents, the circumstances in which mental and behavioural problems are more likely to occur, and the need for empathic responses to distress

[3] e.g. group discussion, home interventions

References

1. *Policies and practices for mental health in Europe – meeting the challenges.* Copenhagen, WHO Regional Office for Europe, 2008 (http://www.euro.who.int/__data/assets/pdf_file/0006/96450/E91732.pdf, accessed 19 December 2011).

2. Hawkins JD et al. Promoting positive adult functioning through social development intervention in childhood: long-term effects from the Seattle Social Development Project. *Arch Pediatr Adolesc Med*, 2005, 159:25-31.

3. *Mental health: facing the challenges, building solutions.* Report from the WHO European Ministerial Conference. Copenhagen, WHO Regional Office for Europe, 2005 (http://www.euro.who.int/__data/assets/pdf_file/0008/96452/E87301.pdf, accessed 19 December 2011).

4. *Health promoting schools: a healthy setting for living, learning and working.* Geneva, World Health Organization, 1998 (http://www.who.int/school_youth_health/media/en/92.pdf, accessed 19 December 2011).

5. Beautrais AL. National strategies for the reduction and prevention of suicide. *Crisis*, 2005, 26:1-3.

6. Bond L et al. The Gatehouse Project: can a multilevel school intervention affect emotional wellbeing and health risk behaviours? *J Epidemiol Community Health,* 2004, 58:997-1003.

7. Patel V et al. Mental health of young people: a global public-health challenge. *Lancet,* 2007, 369:1302-13.

8. Bernat D, Resnick M. Healthy Youth Development: Science and Strategies. *J Publ Health Management Practice,* 2006, Suppl: S10-S16.

9. Gregory A, Henry DB, Schoeny ME. School climate and implementation of a preventive intervention. *Am J Community Psychol,* 2007, 40:250-60.

10. Vreeman RC, Carroll AE. A systematic review of school-based interventions to prevent bullying. *Arch Pediatr Adolesc Med*, 2007, 161:78-88.

11. Olweus D. Bullying at school: basic facts and effects of a school based intervention program. *J Child Psychol Psychiatry,* 1994, 35:1171-90.

12. Woolfenden SR, Williams K, Peat J. Family and parenting interventions in children and adolescents with conduct disorder and delinquency aged 10-17. *Cochrane Database Syst Rev,* 2001:CD003015.

13. Patel V et al. Promoting child and adolescent mental health in low and middle income countries. *J Child Psychol Psychiatry,* 2008, 49:313-34.

14. Chambers M, Connor SL, Davren M. An evaluation of a combined education and multiproject practice development programme in mental health. *J Psychiatr Ment Health Nurs,* 2006, 13:364-71.

15. *Investing in mental health.* Geneva, World Health Organization, 2003 (http://www.who.int/mental_health/en/investing_in_mnh_final.pdf, accessed 19 December 2011).

16. Jané-Llopis E, Anderson P. *Mental Health Promotion and Mental Disorder Prevention: A Policy for Europe.* Nijmegen: Radboud University Nijmegen, 2005 (http://ec.europa.eu/health/archive/ph_projects/2002/promotion/fp_promotion_2002_a01_16_en.pdf, accessed 19 December 2011).

17. Gould MS, Kramer RA. Youth suicide prevention. *Suicide Life Threat Behav,* 2001, 31:6-31.

18. *Global health Risks. Mortality and burden of disease attributable to selected major risks.* Geneva, World Health Organization, 2009 (http://www.who.int/healthinfo/global_burden_disease/GlobalHealthRisks_report_full.pdf, accessed 19 December 2011).

19. Seedat S, Scott KM, Angermeyer MC et al. Cross-national associations between gender and mental disorders in the World Health Organization World Mental Health Surveys. *Arch Gen Psychiatry,* 2009, 66:785-95.

20. Somasundaram DJ, van de Put WA. Management of trauma in special populations after a disaster. *J Clin Psychiatry*, 2006, 67 Suppl 2:64-73.

21. Patel V, Flisher AJ, Nikapota A, Malhotra S. Promoting child and adolescent mental health in low and middle income countries. *J Child Psychol Psychiatry,* 2008, 49:313-34.

22. Novik TS, Hervas A, Ralston SJ et al. Influence of gender on attention-deficit/hyperactivity disorder in Europe–ADORE. Eur *Child Adolesc Psychiatry*, 2006:I15-I24.

23. Varnik A, Kolves K, Allik J et al. Gender issues in suicide rates, trends and methods among youths aged 15-24 in 15 European countries. *J Affect Disord,* 2009, 113:216-26.

24. Ivarsson T, Broberg AG, Arvidsson T, Gillberg C. Bullying in adolescence: psychiatric problems in victims and bullies as measured by the Youth Self Report (YSR) and the Depression Self-Rating Scale (DSRS). *Nord J Psychiatry,* 2005, 59:365-73.

25. Strandheim A, Holmen TL, Coombes L, Bentzen N. Alcohol intoxication and mental health among adolescents – a population review of 8983 young people, 13-19 years in North-Trondelag, Norway: the Young-HUNT Study. *Child Adolesc Psychiatry Ment Health,* 2009, 3:18.

26. Fortune S, Sinclair J, Hawton K. Adolescents' views on preventing self-harm. A large community study. *Soc Psychiatry Psychiatr Epidemiol,* 2008, 43:96-104.

27. Fortune S, Sinclair J, Hawton K. Help-seeking before and after episodes of self-harm: a descriptive study in school pupils in England. *BMC Public Health,* 2008,:369.

28. Lundberg B, Hansson L, Wentz E, Bjorkman T. Stigma, discrimination, empowerment and social networks: a preliminary investigation of their influence on subjective quality of life in a Swedish sample. *Int J Soc Psychiatry,* 2008, 54:47-55.

29. Fazel M, Doll H, Stein A. A school-based mental health intervention for refugee children: an exploratory study. *Clin Child Psychol Psychiatry,* 2009, 14:297-309.

30. Clausson EK, Kohler L, Berg A. Schoolchildren's health as judged by Swedish school nurses – a national survey. *Scand J Public Health,* 2008, 36:690-7.

31. Goodman A, Patel V, Leon DA. Child mental health differences amongst ethnic groups in Britain: a systematic review. *BMC Public Health*, 2008, 8:258.

32. Goldin S, Hagglof B, Levin L, Persson LA. Mental health of Bosnian refugee children: a comparison of clinician appraisal with parent, child and teacher reports. *Nord J Psychiatry*, 2008, 62:204-16.

33. Fisher JRW, Cabral de Mello M, Izutsu T et al. Adolescent Mental Health in Resource-Constrained Settings: A Review of the Evidence of the nature, prevalence and determinants of common mental health problems and their management in primary health care. 2010. In press (*International Journal of Social Psychiatry*).

Gender impacts on adolescent health with focus on mental health

"In order to ensure that women and men of all ages have equal access to opportunities for achieving their full health potential and health equity, the health sector needs to recognize that they differ in terms of both sex and gender. Because of social (gender) and biological (sex) differences, women and men face different health risks, experience different responses from health systems, and their health-seeking behaviour, and health outcomes differ."

Source: Strategy for integrating gender analysis and actions into the work of WHO. Geneva, World Health Organization, 2009.

Why should mental health policies and interventions pay attention to gender?

There is overwhelming evidence from all fields of health research that adolescent girls and boys are different with regards to their biology (sex differences), as well as to socially and culturally constructed gender norms, roles and relationships (gender differences). Together gender and sex, often in interaction with ethnicity and the socioeconomic circumstances of their community and family, influence adolescents' exposure and vulnerability to health risks, such as depressive disorders, and self-inflicted injures included suicide. Recognizing the root causes of differences between adolescent girls and boys in regards to exposure and vulnerability to health risks, as well as identifying potential mental health protective factors is therefore crucial when designing responses from the health and other sectors in order for these responses to be effective.

Mental health among adolescent girls and boys – what do we know?

Existing research shows a distinct gender pattern in mental health after the age of 13 years; different problems afflict boys and girls, and girls generally report more mental health problems than boys (Myrin and Lagerstrom, 2008). Relative to girls, the situation for boys during adolescence is more stable, (Sweeting and West, 2003; Torsheim et al., 2006; West and Sweeting, 2003). Depressive symptoms and anxiety are twice as common among girls as boys (Ge et al., 1994; Hankin et al., 1998) and teenage boys score higher on self-esteem scales than girls (Tomori, Zalar and Plesnicar, 2000).

Externalizing and substance use disorders however present higher rates among boys than girls (Seedat et al., 2009). In terms of suicide, mortality by suicide is higher among boys, while self-harm and suicide attempts are more common in girls (Landstedt, Asplund and Gillander, 2009; Wannan and Fombonne, 1998).

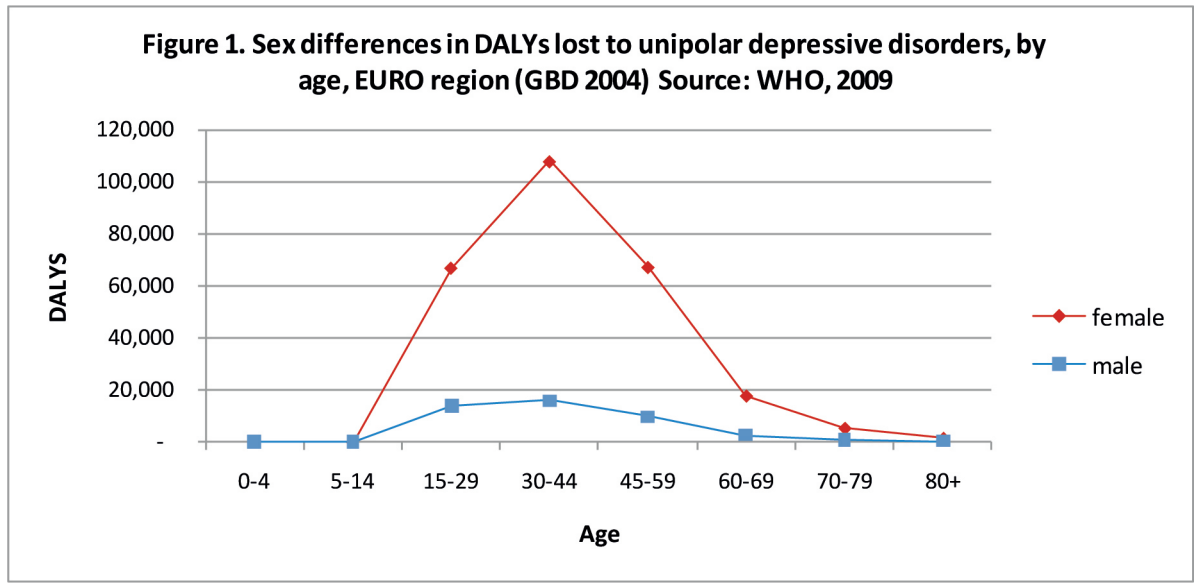
Table 1 shows the percentage of girls and boys with signs of mental health problems (Strengths and Difficulties Questionnaire) in a group of 12 European countries. Girls report more problems than boys in 10 out of 12 countries. This is in line with a comparison of positive mental health in girls and boys for each country, which show that in all countries male adolescents reported statistically significantly better mental health than adolescent girls (Ravens-Sieberer et al., 2008).

Table 1: Mental health problems in different European countries by sex

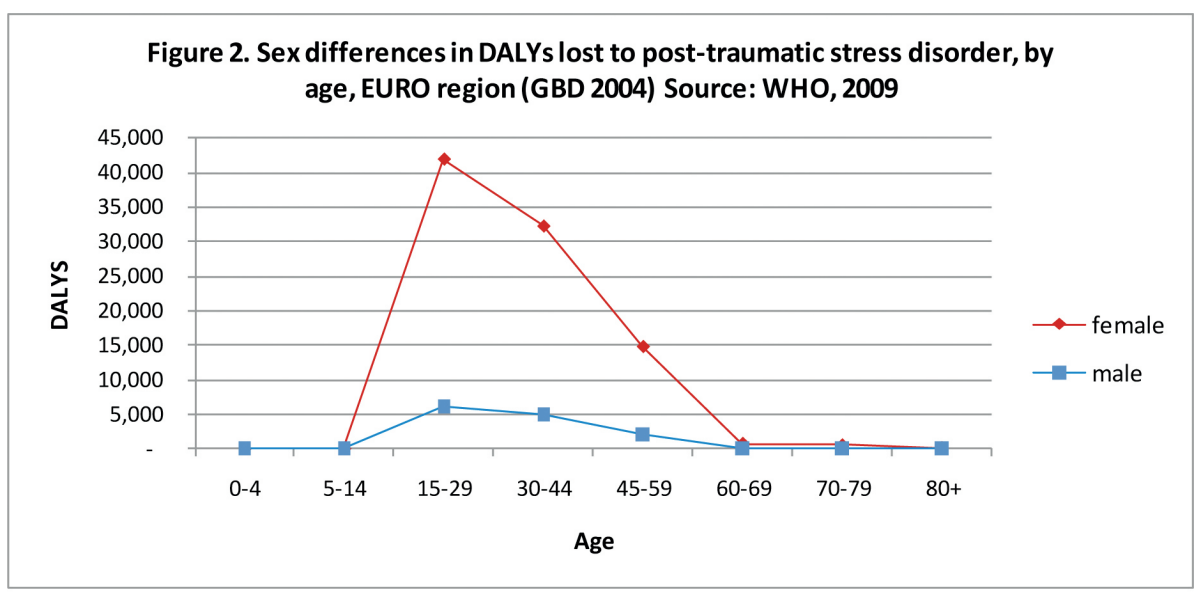
Country	Girls	Boys
Austria(n=942)	13.9%	12.5%
Czech Republic (n=1 026)	22.9%	18.7%
France (n=320)	22.7%	13.2%
Germany (n=1 077)	11.7%	8.2%
Greece (n=1 147)	21.9%	20.1%
Hungary (n=1 841)	19.6%	15.1%
Netherlands (n=1 216)	11.7%	9.1%
Poland (n=1 034)	14.3%	15.2%
Spain (n=542)	14.4%	15.8%
Sweden (n=3 264)	13.9%	12.1%
Switzerland (n=543)	11.0%	8.7%
United Kingdom (n=626)	24.9%	22.4%

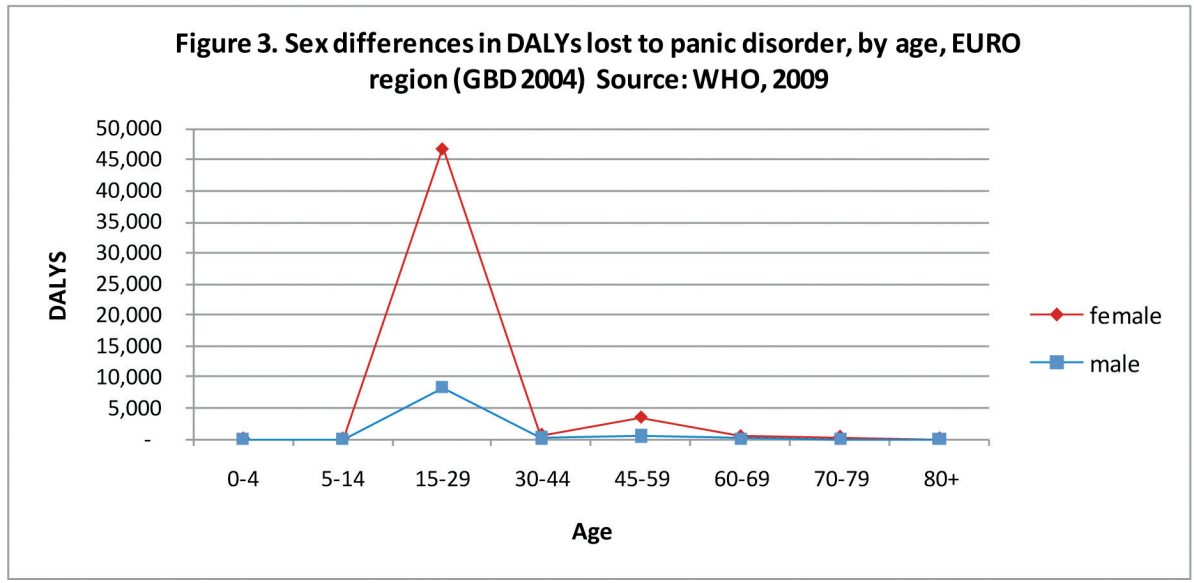
Source: Ravens-Sieberer et al., 2008

According to the 2004 data for WHO Regional Office for Europe region on disability adjusted life years (DALYs), the greatest sex differences for post-traumatic stress disorder and panic disorder (caused by child sex abuse) can be found among adolescents and young adults (Figures 2 and 3) followed by DALYs lost to unipolar depressive disorders (Fig. 1)(WHO, 2009).



Since adolescents' depression shows an increasing tendency around the world (Friedman, 2006), we need to have a better understanding of what psychosocial influences contribute to this development.





The gap between the two sexes changes when it comes to self-inflected injuries. The DALYs lost to self-inflected injuries (caused by child sexual abuse) is higher among adolescent boys, and this gap increases considerably when the causes are alcohol or illicit drug abuse (Fig. 4-6).

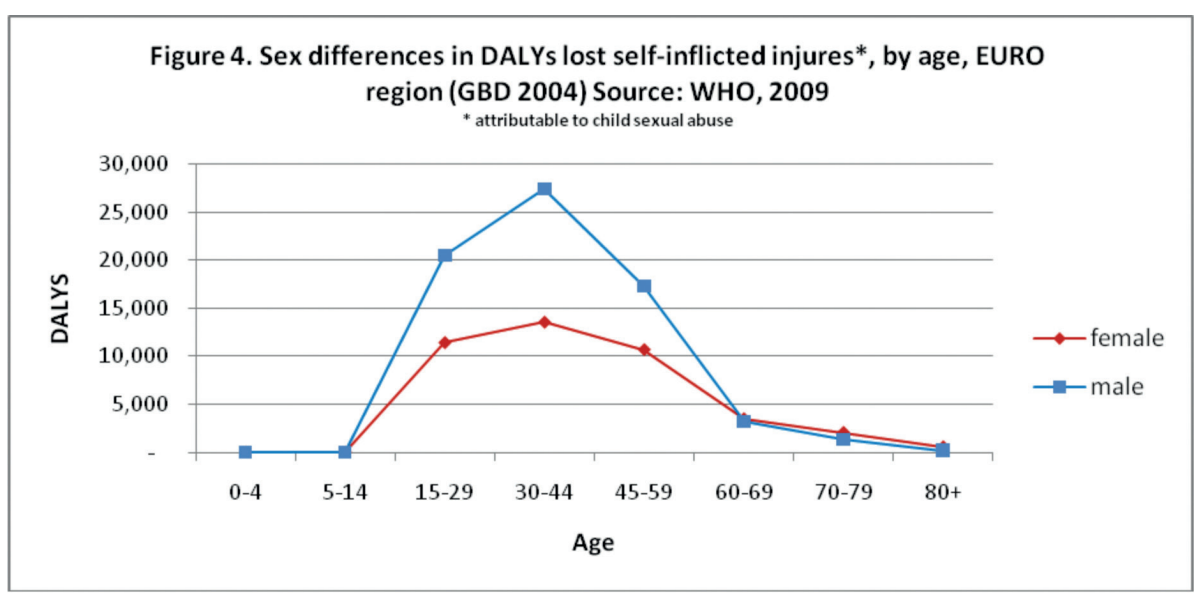


Figure 5. Sex differences in DALYs lost self-inflicted injures*, by age, EURO region (GBD 2004) Source: WHO, 2009

* attributable to alcohol abuse

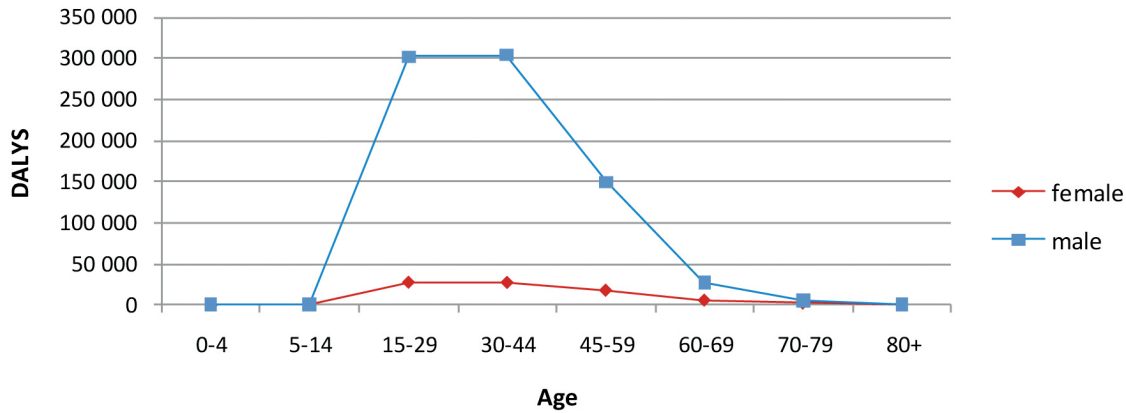
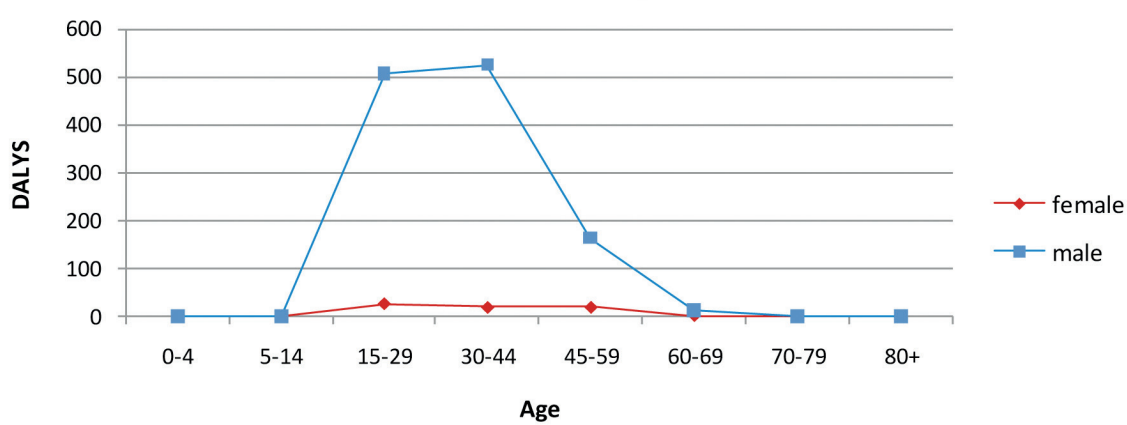


Figure 6. Sex differences in DALYs lost self-inflicted injures*, by age, EURO region (GBD 2004) Source: WHO, 2009

* attributable to Illicit drug use



Among the illicit drugs, cannabis (hashish and marijuana) is the most widely used among adolescents in developed countries and several studies have shown that adolescent cannabis users have a higher prevalence of deliberate self-harm than other adolescents (Rossow, Hawton and Ystgaard, 2009).

A study conducted in 15 European countries among adolescents and young adults showed that suicide rates ranged from 5.5–35.1 for males and from 1.3–8.5 for females. Hanging was most frequently used for both, followed by jumping and the use of a moving object for males and jumping and poisoning by drugs for females. Male suicides had a higher risk than females of using firearms and hanging and a lower risk of jumping and poisoning by drugs. There were large differences between single countries. The study also showed that since 2000, suicide rates among young males have decreased in several European countries. Analysis of suicide methods confirms that there is a very high proportion of hanging in youths, which is extremely difficult to restrict. However, besides hanging there are also high rates of preventable suicide methods and reducing the availability of means should be one of the goals of suicide prevention (Varnik et al., 2009).

A study conducted in Hungary which focused on protective factors for adolescent depression revealed that individual level variables (i.e., life satisfaction and optimism) were important predictors of adolescent depressive symptomatology. Among parental variables, social support from same-sex parents lowered depressive symptoms. In addition, having dinner together with one's family was a significant protective factor for boys, whereas talking about problems with parents was significant for girls. In the study, school-related factors played only a limited role in reducing depressive symptoms. Being happy at school was a protective factor only for boys. As a consequence, the findings draw attention to important gender differences in the structuring of protective factors and their role in reducing depressive symptoms, which will likely continue to be an important part of the prevention conversation (Piko, Kovacs and Fitzpatrick, 2009).

Attention-deficit/hyperactivity disorder (ADHD) is a commonly diagnosed psychiatric condition in childhood. It has an estimated prevalence among school-aged children and adolescents in the United States (US), Canada, Australia and Europe of 2–18%, depending on the diagnostic criteria used. ADHD is less common in girls than boys. Using the DSM-IV criteria, the British Child and Adolescent Mental Health Survey 1999 found a population prevalence of 2.2% of any ADHD, and a 1:4 ratio in girls compared to boys. However, the gender ratio varied for the different subtypes of ADHD: 1:5 for the combined type, 1:3 for the inattentive type and 1:7 for the hyperactive-impulsive type. A systematic review of ADHD in the US school aged population found a gender ratio of 1:3. In the clinical setting, subjects with ADHD are predominantly male, with reported gender ratios of up to 1:9. As a result, there is little information about the manifestations of ADHD in girls and any differences between the genders. A 1997 meta-analysis of gender differences in ADHD suggested that phenotypic expression of the disorder resulted in referral of more boys than girls. The under referral of girls with ADHD has potentially serious public health consequences since long-term problems related to the disorder include social, academic and emotional difficulties (Novik et al., 2006).

What are the explanations behind the differences in mental health among adolescent girls and boys?

Despite a well-documented negative trend and consistent gender pattern describing adolescent mental health, the knowledge base regarding possible explanations for these observations is limited.

Explanatory models regarding gender differences in adolescent mental health have predominantly focused on individual factors, such as hormones or genetics (Angold, Costello and Worthman, 1998) or psychological characteristics (Nolen-Hoeksema, Larson and Grayson, 1999; Piccinelli and Wilkinson, 2000). In contrast, sociological and public health research explore the relations between the social circumstances that people live in and the risk of mental health problems. Public health and socio-cultural health research has found that girls' and boys' different experiences and exposures in terms of stress, violence, cultural norms, workload, and high strain may contribute to the elevated levels of mental health problems observed among girls (Landstedt, Asplund and Gillander, 2009).

Studies on adults have suggested that gender inequality contributes to depressive symptoms in women and that it is relevant to highlight the links between gendered power relations and mental health (Stoppard et al., 2008). According to Gillander, Gadin and Hammarstrom (2002) only a few studies have explored the interaction of power relations, gendered living conditions and mental health in adolescents.

Although a number of biological, psychosocial, and bio psychosocial hypotheses have been proposed to account for these patterns, evidence that gender differences in depression and substance use has narrowed in some countries has led to a special interest in the "gender roles" hypothesis. The latter asserts that gender differences in the prevalence of mental disorders are due to differences in the typical stressors, coping resources, and opportunity structures for expressing psychological distress made available differentially to women and men in different countries at different points in history. Consistent with this hypothesis, evidence of decreasing gender differences in depression and substance use has been found largely in countries where the roles of women have improved in terms of opportunities for employment, access to birth control, and other indicators of increasing gender role equality, while trend studies in countries where gender roles have been more static, or over periods of historical time when gender role changes have been small, have failed to document a reduction in gender differences in depression or substance use (Seedat et al., 2009).

In Sweden, a study conducted among 16- to 19-year-old students with the aim to explore students' perceptions of what is significant for mental health, and to apply a gender analysis to the findings in order to advance understanding of the gender pattern in adolescent mental health, found the following results: significant factors were identified in three social processes categories, including both positive and negative aspects: (1) social interactions, (2) performance and (3) responsibility. Girls more often experienced negative aspects of these processes, placing them at greater risk for mental health problems. Boys' more positive mental health appeared to be associated with their low degree of responsibility-taking and beneficial positions relative to girls. Negotiating cultural norms of femininity and masculinity seemed to be more strenuous for girls, which could place them at a disadvantage with regard to mental health. Social factors and processes (particularly responsibility), gendered power relations and constructions of masculinities and femininities should be acknowledged as

important for adolescent mental health (Landstedt, Asplund and Gillander, 2009).

The association between bullying behaviour, later suicide attempts and completed suicides also varies by sex. Among boys, frequent bullying and victimization are associated with later suicide attempts and completed suicides but not after controlling for conduct and depression symptoms; frequent victimization among girls is associated with later suicide attempts and completed suicides, even after controlling for conduct and depression symptoms. Therefore, when examining childhood bullying behaviour as a risk factor for later suicide attempts and completed suicides, each sex has a different risk profile (Sourander et al., 2009).

The observed variability of gender differences has stimulated a renewed interest in factors that moderate such differences. Rather than viewing gender differences as fixed, the question becomes: under what conditions are gender differences strong, and under what conditions are gender differences weak? Attempts to explain gender differences have included factors at various levels of explanation, including genetic factors (Silberg et al., 1999), perceptual factors (van Wijk and Kolk, 1997), as well as structural factors related to the distribution of work and political power (Kawachi et al., 1999), and gender role socialization. These factors offer scope for influences at several levels, including the societal level. The gender difference in health complaints was stronger in countries with a low gender development index score. The findings underscore the need to incorporate socio-contextual factors in the study of gender health inequalities during adolescence (Torsheim et al., 2006).

Are policies and programmes that address risk for mental health gender sensitive?

Mental and behavioural disorders are estimated to account for 12% of disability-adjusted life-years lost globally and 31% of all years lived with disability at all ages and in both sexes, according to year 2000 estimates. Yet, more than 40% of countries have no mental health policy, over 90% have no mental health policy that includes adolescents and children, and over 30% have no mental health programmes (WHO, 2001a).

For a long time, general practitioners have learnt from clinical experience that women receive more services for mental disorder in primary care settings than men. On the other hand, psychiatrists and clinical psychologists are aware that the difference is less marked for specialist mental health services, and particularly hospital-based services. Service utilization data may have important implications for health policy and services organization. However, they simply indicate the extent of treatment, not the need for treatment. The clinician should therefore go beyond their clinical practice and acknowledge that they need help from epidemiologists and from epidemiologically-based research to be able to understand which sex, or which demographical group within each sex, has the greater risk of experiencing psychological distress and mental illness (Piccinelli and Simon, 1997).

Gender analysis improves understanding of the epidemiology of mental health problems, decisions and treatment of these problems in underreported groups, and also increases potential for greater public participation in health (Vlassoff and Garcia, 2002). Overlooking gender-based differences or gender bias could have drastic consequences. Doctors are more likely to diagnose depression in women compared to men, even when they have similar scores on standardised measures of depression or present with identical symptoms. Gender stereotypes regarding proneness to emotional problems in women and alcohol problems in men appear to reinforce social stigma and constrain help-seeking along stereotypical lines. They are a barrier to the accurate identification and treatment of psychological disorders (WHO, 2010).

To reduce gender disparities in health, the provision of medical services alone is clearly inadequate. Viewing health through a gender lens necessitates steps to improve women's access, affordability and appropriateness to the health services. Health services for women tend to focus on their reproductive functions, neglecting the needs of women outside reproduction and the reproductive ages. A lack of female medical personnel is sometimes a barrier for women to utilize health care services (Paolisso and Leslie, 1995). Poor women find themselves without access to health care more often than men from the same social group, even in rich countries like the United States (Krieger et al., 2003).

Effective strategies for mental disorders prevention and its risk factors' reduction cannot be gender neutral, while the risks themselves are gender specific, and women's status and life opportunities remain low worldwide. Low status is a potent mental health risk. For too many women, experiences of self worth, competence, autonomy, adequate income and a sense of physical, sexual and psychological safety and security, so essential to good mental health, are systematically denied. Therefore, an inter-disciplinary action to set policies which protect and promote women's autonomy and women mental health is crucial. Ministries of health should take steps to develop and integrate gender-relevant indicators in the existing national health information systems, and to find mechanisms to monitor gender sensitivity in the health system.

References

Angold A, Costello EJ and Worthman CM (1998). Puberty and depression: the roles of age, pubertal status and pubertal timing. *Psychol Med,* 28:51-61.

Friedman RA (2006). Uncovering an epidemic–screening for mental illness in teens. *N Engl J.Med*, 355:2717-2719.

Ge X, Conger RD, Lorenz FO and Simons RL (1994). Parents stressful life events and adolescent depressed mood. *J Health Soc Behav,* 35:28-44.

Gillander GK. and Hammarstrom A (2002). Can school-related factors predict future health behaviour among young adolescents? *Public Health,* 116:22-29.

Hankin BL et al. (1998). Development of depression from preadolescence to young adulthood: emerging gender differences in a 10-year longitudinal study. *J Abnorm Psychol,* 107:128-140.

Kawachi I, Kennedy BP, Gupta V and Prothrow-Stith D (1999). Womens status and the health of women and men: a view from the States. *Soc Sci Med,* 48:21-32.

Krieger N et al (2003). Race/ethnicity, gender, and monitoring socioeconomic gradients in health: a comparison of area-based socioeconomic measures–the public health disparities geocoding project. *Am J Public Health,* 93:1655-1671.

Landstedt E, Asplund K and Gillander GK (2009). Understanding adolescent mental health: the influence of social processes, doing gender and gendered power relations. *Sociol Health Illn,* 31:962-978.

Myrin B and Lagerstrom M (2008). Sense of coherence and psychosocial factors among adolescents. *Acta Paediatr,* 97:805-811.

Nolen-Hoeksema S, Larson J and Grayson C (1999). Explaining the gender difference in depressive symptoms. *J Pers Soc Psychol,* 77:1061-1072.

Novik TS et al. (2006). Influence of gender on attention-deficit/hyperactivity disorder in Europe–ADORE. *Eur Child Adolesc Psychiatry,* 15:I15-I24.

Paolisso M and Leslie J (1995). Meeting the changing health needs of women in developing countries. *Soc Sci Med,* 40:55-65.

Piccinelli M and Simon G (1997). Gender and cross-cultural differences in somatic symptoms associated with emotional distress. An international study in primary care. *Psychol Med,* 27:433-444.

Piccinelli M and Wilkinson G (2000). Gender differences in depression. Critical review. *Br J Psychiatry,* 177:486-492.

Piko BF, Kovacs E and Fitzpatrick KM (2009). What makes a difference? Understanding the role of protective factors in Hungarian adolescents depressive symptomatology. *Eur Child Adolesc Psychiatry,* 18:617-624.

Ravens-Sieberer U, Erhart M, Gosch A and Wille N (2008). Mental health of children and adolescents in 12 European countries-results from the European KIDSCREEN study. *Clin Psychol Psychother,* 15:154-163.

Rossow I, Hawton K and Ystgaard M (2009). Cannabis use and deliberate self-harm in adolescence: a comparative analysis of associations in England and Norway. *Arch Suicide Res,* 13:340-348.

Seedat S et al. (2009). Cross-national associations between gender and mental disorders in the World Health Organization World Mental Health Surveys. *Arch Gen Psychiatry,* 66:785-795.

Silberg J et al. (1999). The influence of genetic factors and life stress on depression among adolescent girls. *Arch Gen Psychiatry,* 56: 225-232.

Sourander A et al. (2009). Childhood bullying behavior and later psychiatric hospital and psychopharmacologic treatment: findings from the Finnish 1981 birth cohort study. *Arch Gen Psychiatry,* 66:1005-1012.

Stoppard JM, Thomas-MacLean R, Miedema B and Tatemichi S (2008). The needs of depressed women: perspectives of family physicians. *J Prev Interv Community,* 35: 63-76.

Sweeting H and West P (2003). Sex differences in health at ages 11, 13 and 15. *Soc Sci Med,* 56:31-39.

Tomori M, Zalar B and Plesnicar BK (2000). Gender differences in psychosocial risk factors among Slovenian adolescents. *Adolescence,* 35:431-443.

Torsheim T et al. (2006). Cross-national variation of gender differences in adolescent subjective health in Europe and North America. *Soc Sci Med,* 62:815-827.

van Wijk CM and Kolk AM (1997). Sex differences in physical symptoms: the contribution of symptom perception theory. *Soc Sci Med,* 45:231-246.

Varnik A et al. (2009). Gender issues in suicide rates, trends and methods among youths aged 15-24 in 15 European countries. *J Affect Disord,* 113:216-226.

Vlassoff C and Garcia MC (2002). Placing gender at the centre of health programming: challenges and limitations. *Soc Sci Med,* 54:1713-1723.

Wannan G and Fombonne E (1998). Gender differences in rates and correlates of suicidal behaviour amongst child psychiatric outpatients. *J Adolesc,* 21:371-381.

West P and Sweeting H (2003). Fifteen, female and stressed: changing patterns of psychological distress over time. J *Child Psychol Psychiatry*, 44:399-411.

World Health Organization (2001). *The World Health Report 2001. Mental health: new understanding, new hope.* Geneva, World Health Organization (http://www.who.int/whr/2001/en/whr01_en.pdf, accessed 19 December 2011).

World Health Organization (2009). *Global health Risks. Mortality and burden of disease attributable to selected major risks.* Geneva, World Health Organization (http://www.who.int/healthinfo/global_burden_disease/GlobalHealthRisks_report_full.pdf, accessed 19 December 2011).

World Health Organization (2010). *Gender and women's mental health.* Geneva, World Health Organization.

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