



Updates in Health Care of Adolescents: A Simple Review Article

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

The purpose of this study was to identify what topics adolescents would like to have discussed or addressed when visiting family physicians and to assess the extent to which such discussion is taking place. The main health issues in adolescents are; injuries as intentional injuries are the leading cause of death and disability among adolescents. Violence, mental health, alcohol and drug use, tobacco use, HIV/AIDS, other infectious diseases and early pregnancy and childbirth. There seems to be a need for more comprehensive health education in schools and for health professionals, particularly general practitioners, to opportunistically address these problems in their adolescent patients. Also parents should take their teens to their GP for treatment for these problems, hoped their doctor would be comfortable with such treatment, and wanted their doctor to discuss these problems with their teens.

Keywords: Adolescents; health care; general practitioners; teenagers; primary health care centers.

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1. INTRODUCTION

More than a quarter of the world's population is between 10 and 24 years old, 86% of whom live in less developed countries. These young people are the parents of tomorrow. Adolescence is specifically the period of life between childhood and adulthood, between the ages of 10 and 19. This is a unique stage of human development and an important time to lay the foundations for good health [1-7]. Adolescents experience rapid physical, cognitive, and psychosocial development. It affects the way they feel, think, make decisions, and interact with the world around them. Although it is considered a healthy period in life, there is a significant number of deaths, illnesses and injuries during adolescence. Much of this is preventable or treatable. During this period, adolescents establish behavioral patterns that, for example, regarding diet, physical activity, substance use and sexual activity - can protect their health themselves and those around them, or put their health in danger now and in the future [8].

To grow and develop in good health, young people need information, including comprehensive and age-appropriate sex education; opportunities to develop life skills; health services are acceptable, fair, appropriate and effective; and a safe and supportive environment. They also need the opportunity to participate meaningfully in the design and implementation of interventions to improve and maintain their health. Expanding these opportunities is necessary to meet the specific needs and rights of young people [9]

If teens don't trust their doctors, they won't feel comfortable discussing sensitive health issues. To earn this trust, the doctor must be seen as an advocate for youth. It is best to discuss issues of consent, confidentiality, and its limitations early in the visit. A good start is the first introductory meeting with the teen and parents. In this first meeting, we determine what parent concerns are, take a family history, and ask about past medical problems. It begins the parent-to-adolescent transition as a medical historian. We then asked the parent to wait in the waiting room so we could talk to the teen privately. We interviewed the teen alone, performed a physical exam with a chaperone, and then invited the parents back to the room at the end of the visit to discuss our findings [8,9].

It is important for adolescents to establish a separate relationship with their doctor. Parents

can be objectionable at times and we stress how important it is for a teenager to have a doctor with whom they can confide and discuss difficult issues that may arise in the future. . We assure the parents that at the end of the meeting we will invite them back to the room to discuss the remaining issues.

If a parent is not present and does not explicitly authorize us to treat their child, consent may be implied based on the nature of the medical condition or the condition of the minor (box). Consent laws vary from state to state and practitioners should be familiar with the laws of the states in which they provide care. When we were alone with the teenager, we explained to him that our conversations were confidential, to the extent permitted by law [10].

The law provides that only when we discover that a young person is at risk of injury to themselves or others should such disclosure be reported to the appropriate authorities. In our discussions with minors, we listen carefully to both what is said and what is not said. The conversation begins with a non-threatening discussion of topics the teen may be interested in, such as questions about extracurricular activities or favorite music. The aim is to help adolescents identify potentially hazardous behaviors that may jeopardize their health and assess their motivations for changing these behaviors. We use motivational interviewing techniques, provide teenagers with feedback on risks and promote a sense of responsibility for their health [11].

Adolescents want factual information rather than authoritative guidance on what to do. Avoid using slang, as most teenagers know it's not your usual language. Plus, by the time most doctors have heard of the so-called teen expression, it's probably out of date [12].

In offices or clinics with many patients of different ages, it can be helpful to schedule a time when only adolescents are seen. Teens feel more comfortable when there are other teenagers in the area visiting. It also provides an opportunity to play educational videotapes, display different equipment or materials, or provide promotional materials that may not be appropriate for younger age groups. Placing sensitive information in individual exam rooms rather than in waiting rooms makes it possible for teens to pick up or read it without being observed by other teens [13].

We took advantage of a teenager's visit to our clinic by giving him a psychosocial screening. A psychosocial assessment tool has been developed to assess problems with family, education, activity, drugs, sexuality, suicide or depression, and safety (HEADSSS). This assessment tool provides an entry point to discuss key psychosocial issues in adolescents. Although these questions are personal, teens want to discuss them with a doctor [14].

Ensuring privacy increases the number of teenagers who discuss sensitive information about sex, substance abuse, and mental health, and who are willing to seek future health care. For this reason, we avoid administering written questionnaires in the waiting room [15].

1.1 Objectives

The study aim to summarize the updated evidence regards Health Care of Adolescents.

2. MATERIALS AND METHODS

Study Design: Review article.

Study Duration: Data was collected during the period from 1– 29 September, 2021.

Data Collection: PubMed and EBSCO Information Services will be chosen as the search databases for the publications used within the study, as they are high-quality sources. PubMed being one of the largest digital libraries on the internet developed by the National Center for Biotechnology Information (NCBI) which is a part of the United States National Library of Medicine. Topics concerning the updated evidence regarding Health Care of Adolescents, published in English around the world. The keyword search headings included "updates, evidence, Health Care, Adolescents", and a combination of these was used. References list of each included study will be searched for further supportive data. Double revision of each member's outcomes will be applied to ensure the validity.

Statistical Analysis: No software was utilized to analyze the data. The data will be extracted based on the study objective. These data will be reviewed by the group members to determine the initial findings. Double revision of each member's outcomes was applied to ensure the validity and minimize the mistakes.

3. MAIN HEALTH ISSUES OF ADOLESCENTS

3.1 Injuries

Accidental injuries are the leading cause of death and disability in adolescents. In 2019, more than 115,000 young people died as a result of traffic accidents (WHO, 2021). Many of the dead were "vulnerable road users", including pedestrians, cyclists or users of motorized two-wheelers. In many countries, road safety laws need to be expanded and enforced. In addition, young drivers need advice on how to drive safely, while the laws prohibiting driving with alcohol and drugs must be strictly enforced in all age groups. The blood alcohol level should be kept lower in young drivers than in adults. Graduated driver's licenses are recommended for novice drivers with zero tolerance for driving under the influence of alcohol. Drowning is also one of the leading causes of death among young people: it is estimated that more than 30,000 young people, more than three-quarters of them children, drowned in 2019. Teaching children and adolescents to swim is a fundamental part of prevent these deaths.

3.2 Violence

Interpersonal violence is the fourth leading cause of death among adolescents and young people worldwide. Its importance varies considerably according to the region of the world. It causes nearly a third of all male adolescent deaths in low- and middle-income countries in the WHO Americas. According to the World School Student Health Survey, 42% of adolescent boys and 37% of adolescent girls have been victims of bullying. Sexual violence also affects a significant proportion of young people: 1 in 8 young people report sexual abuse.

Teen violence also increases the risk of injury, HIV and other sexually transmitted infections, mental health problems, poor school performance and school dropouts, early pregnancy, reproductive health problems, and communicable and non-communicable diseases.

Effective prevention and response strategies include promoting parenting and early childhood development; Bullying prevention, life and social skills programs, and community approaches to reduce access to alcohol and firearms. Effective and empathetic care for young survivors of violence, including ongoing support, can help

with the physical and psychological consequences.

3.3 Mental Health

Evidence is growing on the overall impact that happiness experienced in childhood and adolescence can have throughout an individual's life on physical and mental health. Indeed, most of the burden on individuals' adult lives arises during childhood and adolescence; in fact, more than 50% of cases of psychosis occur before adulthood [16,17]. Psychiatric disorders, including depression, bipolar disorder, anxiety disorders, schizophrenia, intellectual disability, and developmental disorders with onset in childhood and adolescence, are very common. variable in the general population. According to current estimates, up to 30% of the European population suffers from a mental disorder during their lifetime [18,19]. Even more important are the subthreshold mental disorder estimates, which do not meet the criteria for an adequate diagnosis but still have an impact on the quality of life and well-being of those affected.

Mental disorders are increasingly recognized as a determinant of poor health and quality of life. Current estimates recognize mental disorders as the most important and growing cause of the disease burden [19]. The burden of mental health disorders and self-injury is currently estimated to be greater than the burden of cardiovascular disease and cancer [20].

Mental disorders negatively affect an individual's entire life, causing significant psychological, cognitive, social and occupational impairments and disabilities. Active and untreated mental disorders cause poorer school performance, lead to higher rates of self-harm and suicide, and lead to increased unhealthy risk behaviors such as smoking, drugs, drug abuse, alcohol or drugs, poor diet, inactivity, thereby leading to an increased risk of disease and premature death [21]. The economic impact of mental disorders is enormous on individuals, their families and society, due to the increased use of health care services, loss of productivity, unemployment and costs due to the increase in mental health. increase in anti-social behavior and crime [21].

Interventions to improve the mental health and well-being of children and young people can have a broad impact on their developmental trajectories, leading to significant reductions in impairment and disability due to physical illness

and mental disorders in adulthood, reduced suicide rates, and reduced use of mental health care [21]. Additional benefits from improving the mental health of children and adolescents include better school performance, healthier lifestyles, for example. reduce participation in unhealthy risk behaviors such as smoking and alcohol or drug use, reduce antisocial behavior and crime, and increase work productivity and better social relationships . Because many adult mental health disorders occur during childhood or adolescence, early intervention and prevention of mental health disorders in childhood and adolescence is imperative.

The European Treaty on Mental Health and Wellness [22] calls for immediate action and investment to promote the mental health of children and young people. The European Commission Joint Action on Mental Health and Wellness [23] includes a work module on mental health and schools, as schools have been identified as the primary framework for interventions. interventions to promote the mental health and well-being of children and young people in Europe [24]. School in general and education level in particular is recognized as a fundamental determinant of the mental health of children and adolescents [25].

Schools can be the perfect place to promote health and provide health interventions, as schools are where young people typically spend most of their day and socialize, schools can easily reach families, schools can provide non-discriminatory health actions, and schools can provide appropriate and timely links to the community. As stated by the World Health Organization, "There is ample evidence that curricula in elementary, middle and high schools can have a positive impact on mental health. and reduce risk factors as well as emotional and behavioral problems through socio-emotional learning and ecological interventions" [26].

School-targeted interventions can be strategic in reaching people in need of treatment. Indeed, there is evidence that most people who could benefit from potentially effective treatments do not visit treatment facilities due to obstacles and barriers, including mental health awareness. low morale and concerns related to stigma. This gives rise to a range of impacts and associated economic costs [1]. The European Commission Joint Action on Mental Health and Wellness has recommended strengthening the documentation of existing studies, effective interventions as well

as key studies and studies to fill in the gaps. gaps in the mental health and wellbeing of children and young people, with particular attention to the school environment. (Work 7) [24]. Depression is the leading cause of illness and disability in adolescents, and suicide is the third leading cause of death among 15- to 19-year-olds. Mental health problems account for 16% of the global burden of disease and injury among people aged 10-19 years. Half of all mental health problems in adulthood begin by age 14, but most cases go undetected and untreated.

Many factors influence the well-being and mental health of adolescents. Violence, poverty, discrimination, exclusion, and living in a humane and fragile environment can increase the risk of developing mental health problems. Consequences of not addressing adolescent mental health issues extend into adulthood, impairing both physical and mental health and limiting opportunities for fulfilling lives. in adulthood.

Developing the social-emotional skills of children and young people and supporting them psychosocially in schools and other community settings can help promote good mental health. Programs that strengthen the relationship between youth and their families and improve the quality of the home environment are also important. If problems arise, they should be detected and handled promptly by competent and conscientious medical staff.

3.4 Reproductive Health

Adolescence is a critical transition period [2,24] that includes the biological changes of puberty and sexual development.

The sexual and reproductive health decisions you make today will affect the health and well-being of your communities and countries for decades to come.

Two issues in particular have profound implications for the sexual health and reproductive lives of young people: family planning and HIV / AIDS. Teenagers are more likely to die from pregnancy-related health complications than women over the age of 20. Statistics show that half of all new HIV infections worldwide are among young people between the ages of 15 and 24.

3.5 Other Infectious Diseases

Thanks to the improvement of childhood vaccines, the deaths of young people and disabilities from measles have decreased significantly; For example, youth mortality from measles in the Africa region fell by 90% between 2000 and 2012.

Diarrhea and lower respiratory infections (pneumonia) are among the top ten causes of death in adolescents in between 10 and 14 years. These two diseases, along with meningitis, are among the top five causes of death among adolescents in low- and middle-income African countries.

Infectious diseases such as human papillomavirus, which normally occur after sexual activity has begun, can lead to short-term illnesses (genital warts) in adolescence and, more importantly, cervical cancer and other cancers a few decades later. Early adolescence (9-14 years) is the optimal time to be vaccinated against HPV infection, and it is estimated that if 90% of girls worldwide receive the HPV vaccine, more than 40 million could be saved. lives in the next century. However, it is estimated that only 15% of girls worldwide received the vaccine in 2019.

4. NUTRITIONAL AND MICRONUTRIENT DEFICIENCIES

Iron deficiency anemia was the second leading cause of loss of years due to death and disability in teens in 2016. Iron and folic acid supplements are a solution that also helps promote health before teens become parents. Regular deworming is recommended in areas where intestinal worms such as hookworms are common to prevent micronutrient deficiencies (including iron).

Developing healthy eating habits in adolescence is the foundation of good health in adulthood. For everyone, but especially for children and adolescents, it is important to reduce the marketing of foods that are high in saturated fat, trans fat, free sugar or salt and allow access to healthy foods.

4.1 Under Nutrition and Obesity

Many boys and girls in developing countries enter adolescence undernourished, making them more vulnerable to disease and early death. At

the other end of the spectrum, the number of adolescents who are overweight or obese is increasing in low-, middle- and high-income countries.

Globally, in 2016, over one in six adolescents aged 10–19 years was overweight. Prevalence varied across WHO regions, from lower than 10% in the WHO South-East Asia region to over 30% in the WHO Region of the Americas.

4.2 Physical Activity

Physical activity offers basic health benefits for adolescents, including improved cardiorespiratory and muscular fitness, bone health, maintaining a healthy weight, and psychosocial benefits. The WHO recommends that adolescents get at least 60 minutes of moderate to vigorous physical activity a day, which may include games, sports, but also commuting activities (such as biking and walking) or physical education. It is estimated that only one in five young people worldwide meets these guidelines. The prevalence of inactivity is high in all WHO regions and higher in adolescent females than in adolescent males.

To increase activity levels, countries, societies and communities must create safe and supportive environments and opportunities for physical activity for all young people.

4.3 Rights of Adolescents

Knowing the rights of children and adolescents is the first step to be able to treat them properly and find a safe and healthy environment in which to grow up. The rights of children (under 18 years of age) to survive, grow and develop are enshrined in international legal documents. In 2013, the Committee on the Rights of the Child (CRC), which oversees the Convention on the Rights of the Child, published guidelines on the right of children and adolescents to the highest possible health and a General Comment on the realization of children's rights. Adolescent Children was published in 2016. This emphasizes the obligation of States to recognize the special health and development needs and rights of adolescents and young people [4].

The Convention on the Elimination of Discrimination against Women (CEDAW) also establishes the rights of women and girls to health and adequate medical care.

5. ROLE OF HEALTH WORKERS IN PROVIDING PRIMARY HEALTH CARE TO ADOLESCENTS

Health workers could play an important role in providing health services in the community, and were in a good position to address issues related to reproductive health of adolescents. Hence a feasibility study was done to check if female health workers (FHWs) also known as Auxiliary Nurse Midwife could be involved to provide adolescent friendly services for addressing common adolescent girls' reproductive health problems electively. In this study WHO Adolescent Job Aid algorithms were suitably tailored for the local requirements. FHWs were trained to use those algorithms when they encountered an adolescent girl with any common reproductive health problem. Training was successful in increasing the knowledge of the FHWs about adolescent girls' reproductive health issues [10].

Children and adolescents increasingly show health-related problems which may not be considered as diseases to be treated but nevertheless severely affect academic performance and social behavior. Regarding the consequences, e.g. from the PISA study, the significance of health problems and their negative impact on academic success are still not sufficiently taken into account. The tasks of pediatric public health services include: (1) health promotion in schools and kindergartens, (2) preventive and other medical checkups in kindergartens and schools to detect the individual needs of children and adolescents for support, (3) reducing the risk of long-term damage in handicapped or retarded children and adolescents by seeking out these children where necessary, and (4) advising the political decision makers by reporting on the population's health and social situation. The main aim is to provide children with special needs with what they need in order to prevent them, especially those whose parents cannot ensure this support themselves, developing a deeper disturbance, or to make sure that these young people are able to participate in social life and to integrate into society in spite of health problems or handicaps. To achieve these goals and to improve the health of children and adolescents, a community-based pediatric public health service has to cooperate with other institutions such as youth authorities, social welfare, education authorities, schools and other local institutions with an input into the health of children and adolescents.

Health workers could play an important role in providing health services in the community, and were in a good position to address issues related to general health of adolescents. Hence a feasibility studies should be done to check if health workers could be involved to provide adolescent friendly services for addressing common adolescents general health problems effectively.

Health care workers were trained to use an friendly, simple and effective ways when they encountered an adolescent individual with any common health problem. Training was successful in increasing the knowledge of the health care workers about adolescents' health issues. The health care workers were able to satisfactorily classify the common adolescents' problems using the modified WHO techniques. It has been shown in the study that health care workers when trained well could be agents of change especially when it comes to managing common adolescents' health morbidities [5].

6. GOOD APPROACH TO ADOLESCENTS

Questions about friends, recreational use, and going to parties can indirectly provide information about sexual activity, substance abuse, and mental health. We asked about self-image, including bodybuilding and related steroid use, and self-perception of weight. Reports suggest that anabolic steroid use is increasing among middle and high school students [6].

Care should be taken with questions on specific topics such as sex life and problems, as the questions can be embarrassing and the answer, if not done correctly, can be defensive [7].

Don't be judgmental when talking about alcohol, tobacco, or other substance abuse. Caregivers of adolescents should be familiar with illegal drugs used in the community. Alcohol remains the most common substance of abuse in this age group.

A physical exam in an otherwise healthy adolescent is unlikely to provide much useful information. Some indications for a pelvic exam are a direct request from the patient, the patient is sexually active, or the patient has abdominal or pelvic pain. It doesn't have to be done routinely for all growing women. Juvenile literature discusses whether urinalysis in an asymptomatic adolescent can replace a routine annual pelvic exam and Pap smear [27,28,29]. Most evidence-based guidelines recommend annual Pap swabs in sexually active adolescents.

An adolescent girl's first pelvic exam should be performed by a physician familiar with and experienced in performing pelvic exams. The test is best explained to the adolescent in street clothes and is carried out in the presence of a companion, not a parent. We asked the teens if they would like their parents or someone else in the room to support them. The exam should be scheduled in good time for the questions. We provide the adolescent with a mirror so that she can see what we are doing whenever she wants.

For an adolescent girl's first pelvic exam, it is often more convenient to perform the bimanual exam prior to the speculum exam. To minimize the patient's fear of the exam, first touch a neutral area before examining the genitals and avoid sudden movements. If a plastic speculum is used, the adolescent should be warned that she may click or click when opened [30].

7. CONCLUSION

There is an increase in the incidence of sexually transmitted diseases, teenage pregnancies, and alcohol and cocaine use. Smoking has decreased slightly in adolescent boys, but has increased in adolescent girls. This study shows that teens are interested in discussing all of these topics. If physicians were aware of this concern, they could feel more confident to address these issues more frequently and in greater depth. The effect that this preventative approach could have in helping teens cope with a troubled world is both medically and socially encouraging.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Olesen J, Gustavsson A, Svensson M, Wittchen HU, Jönsson B. CDBE2010 study group. European Brain Council. The economic cost of brain disorders in Europe.

- Eur J Neurol. 2012;19:155–62. [PubMed] [Google Scholar]
2. Johnson MK, Crosnoe R, Elder GH. Insights on adolescence from a life course perspective. *J Res Adolescence*. 2011; 21(1):273-80. DOI: 10.1111/j.1532-7795.2010.00728.x
 3. Patton GC, Sawyer SM, Santelli JS, Ross DA, Afifi R, Allen NB, et al. Our future: A Lancet commission on adolescent health and wellbeing. *Lancet*. 2016;387:2423-2478. DOI: 10.1016/S0140-6736(16)00579-1
 4. McNeely C, Blanchard J. The teen years explained: A guide to healthy adolescent development. Baltimore, MD: Johns Hopkins Bloomberg School of Public Health, Center for Adolescent Health; 2009.
 5. Siddaiah A, Nongkrynh B, Anand K, Pandav CS. Feasibility and validity of using WHO adolescent job aid algorithms by health workers for reproductive morbidities among adolescent girls in rural North India. *BMC Health Services Research* 15: 400. *Journal of Community Medicine & Health Education* Siddaiah and Nongkrynh; 2015.
 6. National Institute on Drug Abuse. Drug use among teenagers leveling off. NIDA news release; 1999. Available: <http://www.nida.nih.gov/MedAdv/99/NR-1217a.html>
 7. Sells CW, Blum RW. Morbidity and mortality among US adolescents: An overview of data and trends. *Am J Public Health*. 1996;86:513-519. [PMC free article] [PubMed] [Google Scholar]
 8. McCleery E, Christensen V, Peterson K, Humphrey L, Helfand M. Evidence Brief: The Quality of Care Provided by Advanced Practice Nurses. 2014 Sep. In: VA Evidence Synthesis Program Evidence Briefs [Internet]. Washington (DC): Department of Veterans Affairs (US); 2011. PMID: 27606392.
 9. Jeremic Stojkovic V, Matejic B, Turza K. Serbian primary care physicians' perspectives on adolescents' right to confidentiality in sexual and reproductive healthcare-a qualitative interview study. *Fam Pract*. 2019;36(3):317-324.
 10. Riley M, Patterson V, Lane JC, Won KM, Ranalli L. The Adolescent Champion Model: Primary Care Becomes Adolescent-Centered via Targeted Quality Improvement. *J Pediatr*. 2018;193:229-236.e1.
 11. Pace BT, Dembe A, Soma CS, Baldwin SA, Atkins DC, Imel ZE. A multivariate meta-analysis of motivational interviewing process and outcome. *Psychol Addict Behav*. 2017;31(5):524-533.
 12. Toomey SL, Elliott MN, Schwebel DC, Tortolero SR, Cuccaro PM, Davies SL, Kampalath V, Schuster MA. Relationship Between Adolescent Report of Patient-Centered Care and of Quality of Primary Care. *Acad Pediatr*. 2016; 16(8):770-776.
 13. Sedlander E, Brindis CD, Bausch SH, Tebb KP. Options for assuring access to confidential care for adolescents and young adults in an explanation of benefits environment. *J Adolesc Health*. 2015; 56(1):7-9.
 14. WHO Global status report on road safety; 2018. Available: <https://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries>
 15. Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the national comorbidity survey replication. *Arch Gen Psychiatry*. 2005;62:593–602. [PubMed] [Google Scholar]
 16. Kessler RC, Amminger GP, Aguilar-Gaxiola S, Alonso J, Lee S, Ustün TB. Age of onset of mental disorders A review of recent literature. *Curr Opin Psychiatry*. 2007;20:359–64. [PMC free article] [PubMed] [Google Scholar]
 17. Wittchen HU, Jacobi F, Rehm J, et al. The size and burden of mental disorders and other disorders of the brain in Europe 2010. *Eur Neuropsychopharmacol*. 2011;21:655–79. [PubMed] [Google Scholar]
 18. Carta MG, Kovess V, Hardoy MC, et al. Psychosocial wellbeing and psychiatric care in the European communities Analysis of macro indicators. *Soc Psychiatr Psychiatric Epidemiol*. 2004;39(11):883–92. [PubMed] [Google Scholar]
 19. WHO - World Health Organization. The World Health Report 2008: Primary Healthcare, Now More Than Ever. Geneva: WHO; 2008. [Google Scholar]
 20. OECD - Organisation for Economic Co-operation and Development Health Reform Meeting the Challenge of Ageing and

- Multiple Morbidities. OECD Publishing; 2011.
Available:<http://dx.doi.org/10.1787/9789264122314-en>
21. Champion J, Bhui K, Bhugra D. European Psychiatric Association. European Psychiatric Association (EPA) guidance on prevention of mental disorders. *Eur Psychiatry*. 2012;27:68–80. [PubMed] [Google Scholar]
 22. European Pact for Mental Health and Well-being. Brussels European Commission; 2008.
Available:http://ec.europa.eu/health/ph_determinants/life_style/mental/docs/pact_en.pdf. 2014
[Accessed 22 August].
 23. EU Joint Action on Mental Health and Well-being. European Commission.
Available:<http://www.mentalhealthandwellbeing.eu/> 2013
 24. Joint Action on Mental Health and Well-being WP7 on Mental Health and Schools. Regione Veneto.
<http://www.regione.veneto.it/web/sanita/joint-action>; 2014.
 25. Currie C, Zanotti C, Morgan A, et al., editors. Social determinants of health and well-being among young people. *Health Behaviour in School-aged Children (HBSC) study*. International report from the 2009/2010 survey; WHO Regional Office for Europe 2012. (Health Policy for Children and Adolescents, No. 6).; Copenhagen; 2012. [Google Scholar]
 26. WHO - World Health Organization Summary report Prevention of mental disorders - effective interventions and policy options. Geneva WHO; 2004. [Google Scholar]
 27. Shafer MA, Pantell RH, Schachter J. Is the routine pelvic examination needed with the advent of urine-based screening for sexually transmitted diseases? *Arch Pediatr Adolesc Med*. 1999;153:119-125. [PubMed] [Google Scholar]
 28. Kahn JA, Emans SJ. Pap smears in adolescents: to screen or not to screen? *Pediatrics*. 1999;103:673-674. [PubMed] [Google Scholar]
 29. American Academy of Pediatrics. Recommendation for preventive pediatric health care. *Pediatrics*. 1995;96:712. [Google Scholar]
 30. Michael S Wilkes¹ and Martin Anderson. Et al. A primary care approach to adolescent health care. *West J Med*. 2000;172(3):177–182.

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