A Framework for the Integration of Adolescent Health and Development Concepts Into Pre-service Health Professional Educational Curricula WHO Western Pacific Region

World Health Organization
Western Pacific Region
2001

WHO Library Cataloguing in Publication Data

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1. Adolescent health services. 2. Curriculum. 3. Education, Professional.

ISBN 92 9061 010 7

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Table of Contents

Introduction

A project that will integrate adolescent health and development (ADH) issues into the curricula of medical and nursing education institutions has been undertaken by the Adolescent Health and Development Programme, WHO Regional Office for the Western Pacific, in collaboration with the Open University and College of Nursing, University of the Philippines, Manila and WHO Headquarters. The project itself constitutes part of an ongoing process to find ways to introduce adolescent health and development into pre-service training and continuing education of health professionals throughout the Region. It is part of the ADH strategic plan and is considered high priority.

In this document, the process and findings of a preliminary qualitative research project are presented and discussed as the basis for a framework for integration. More detailed information is attached as appendices.

Background

In the WHO Western Pacific Region, young people face significant challenges to their health and well-being. These include: high-risk behaviours, such as alcohol, tobacco and other drug use; sexual behaviours that can lead to adolescent pregnancy and sexually transmitted infections (STIs), including HIV/AIDS; mental health concerns, including depression and suicide; learning disabilities, with school failures and school drop-outs; serious family problems, including domestic violence and abuse; and lifestyle factors, increasing adolescents' risk for noncommunicable diseases, such as diabetes and cardiovascular disease. Broader underlying issues influencing adolescent health include socioeconomic factors, such as poverty, gender and the political and social situations in which young people live (WHO, 2000).

These adolescent health issues, most of which are preventable, can lead to significant morbidity and mortality. Health systems and health care professionals must adapt to the needs of adolescents, in particular, their preventive health needs. Promoting positive development in adolescence requires a multifocal approach to the enhancement of individual and environmental protective factors that prepare young persons to be healthy contributing members of society.

In countries of the Western Pacific Region, nurses, midwives, mid-level practitioners (e.g. health officers, medical assistants, nurse practitioners) and doctors must be competent to provide adolescent health care. Increasing emphasis is being placed on the need for more efficient care, greater access to care, and health workers who can address the complex needs of adolescents. It is also recognized that this shift in health priorities requires high quality, interdisciplinary collaborative care.

What is the ADH Curricular Integration Project?

The project is directed primarily towards the introduction of adolescent health and development concerns into pre-service training of health professionals throughout the Region, and to aid student development of the essential competencies necessary for providing adolescent health care. Members of the Project Team are listed in Appendix 1. The detailed plan includes the following steps:

(1) conduct a review of literature related to adolescent health and development, education methodologies and curricular integration;

(2) obtain general information from selected countries in the Region about the existence of adolescent health policies, services/ programmes and teaching in ADH;

(3) develop a list of competencies in ADH for health care providers, in collaboration with relevant colleagues and groups;

(4) undertake a comprehensive curricular review process in the participating institutions and analysing the results; and

(5) develop a framework and curricular integration process guidelines for the integration of ADH concepts, relevant teaching/learning methodologies and evaluation tools into preservice health worker training curricula for nurses, midwives, mid-level practitioners and doctors in the Region.

Reviewing the literature

During the rapidly changing period of adolescence, young persons strive to establish independence from parents, create and maintain relationships with peers, complete their formal schooling and take their place in social systems and the workforce. These developmental stages are not only taking place in the context of changing political, cultural and socioeconomic environments, but also are modified by factors related to gender, class and family.

Accompanying notable threats to adolescent health, often linked to adolescent exploratory or risk behaviours, include those related to violence, accidents and injuries; substance abuse; mental or emotional disorders; nutritional alterations; sexually transmitted infections; and unintended pregnancy (Strasburger and Brown,1998; WHO, 2000). Although there are many threats to the health of adolescents, some adolescents are more resilient than others. Resilience and certain "protective factors" serve to enhance the health of adolescents (Benson and Scales, 1998).

Health professionals' understanding of the physical, cognitive and psycho-social components of adolescent growth and development and associated health risks and protective factors serves as the basis for comprehensive history-taking, physical examination and health guidance. Although health professionals play a key role in caring for adolescent patients and improving their health and welfare, their education may not adequately prepare them for this role. Researchers have found that paediatric residents and house officers often have had limited exposure to adolescent medicine (Rosen, 1996; Strasburger, 1997).

Despite the voluminous literature on health professional education, and a range of articles devoted to generic aspects of curricular change and education practices in general, there appears to be relatively little published information on efforts to integrate adolescent health into undergraduate courses. However, as is evident from the list of references (both general ADH and educational references), there is much related information available, including examples of well-established inservice curricular material. This multidisciplinary study is being undertaken to provide information to the teachers of health professionals and to facilitate changes in educational curricula. The goal is the provision of adolescent health and development curricular content which is of high practical relevance and based on the core skills or competencies health professionals require to meet the unique physical and psychological needs of adolescents and their families.

The literature review, undertaken by the WHO Western Pacific Regional Office Adolescent Health and Development Project team, the University of the Philippines, Manila College of Nursing and the Open University, was wide-ranging. Published and unpublished articles and documents concerning aspects of adolescent health and development, health promotion and service delivery, health professional education, teaching and assessment methodologies and curriculum development were explored. An important aspect of the literature review was the opportunity to become familiar with the concept of competencies for health professionals as they might apply to ADH.

Adolescents' access to health services is affected by a number of factors including ethnicity, lack of insurance coverage, inconvenient clinic hours, inadequate transportation, attitudes and behaviours of health professionals, and lack of assurance of confidentiality (Australian Health Ministers, 1995; Ryan, Millstein, Greene, 1995; Society for Adolescent Medicine, 1992). The characteristics of health professionals which adolescents find desirable include honesty, respect and confidentiality (Ford, Millstein, Halpern-Feisher, et al, 1996; Ginsburg, Slap, Cnaan, 1995).

The initial step of a visit with an adolescent begins with an interview and this first interaction is of paramount importance in putting the adolescent at ease and establishing rapport (Smith and Felice, 1980). Expressing genuine interest in the adolescent, along with being courteous and sensitive, facilitate the establishment of a therapeutic partnership between health professional and patient (Cox, 1988) and expression of feelings by the adolescent.

Establishing rapport and positive relationships with adolescents and their families are critical and foundational steps in providing ongoing health care to adolescents (Coleman, 1995). The interpersonal competence of health professionals requires self-assessment of personal beliefs and the influence of those beliefs on patient interactions (American Nurses Association, 2001), as differing values and beliefs between health professionals and adolescents impact the establishment of a therapeutic partnership.

Careful, yet comprehensive interviewing and history-taking are essential, not only to address general health and well-being, but in particular, adolescents' presenting problems and their relationship to psycho-social and economic factors, performance in school, family functioning and the characteristics of communities in which the adolescent lives (American Medical Association, 1992; Benson and Scales, 1998). Correspondingly, a vital part of history-taking is assessment of the "connections" of adolescents to their parents, schools, teachers and peers. Researchers

have found that the degree of connectedness of adolescents enhances the health of adolescents and mitigates the impact of risk factors in adolescents' lives (WHO, UNICEF; 2000).

A number of adolescent preventive health care guidelines are available for use (American Academy of Pediatrics, 1998; American Medical Association, 1992; US Preventive Services Taskforce, 1996; Green, 1994). Implementation of these guidelines has been shown, in some studies, to result in improved preventive services for adolescents (Klein, et al, 2001). Although clinical preventive screening and counselling should be actively undertaken to promote adolescent healthy behaviours and reduce risks, studies have revealed that over seventy percent of adolescents' visits with health care professionals may not include these cost-effective components of preventive health care (Igra and Millstein, 1993).

An understanding of theoretical frameworks of preventive health care, health promotion (WHO, 1986) and counselling is essential for health professionals to be able to enhance adolescents' self-esteem and their use of internal and external resources to reduce potential risks and improve their health status. The counselling focuses on the promotion of adolescents' social skills and emotional competencies, decision-making skills, self-management skills, refusal or resistance skills and coping strategies (Fischhoff, Crowell and Kipke, 1999; WHO and UNICEF, 1999).

Health professionals must identify and reflect upon their own attitudes regarding adolescent sexual activity in order to promote responsible sexual behaviour of adolescents and to support them in avoiding negative outcomes from sexual activity, including STIs and unintended pregnancy (Focus on Young Adults, 2001).

Thirty core health professional competencies and 37 sub-competencies were ultimately categorized under four domains, derived from the comprehensive literature review; regional data related to adolescent health issues and corresponding roles of health professionals; and consultations with adolescent health experts and health professional educators (see Appendix 2). The domains were:

- **Professional development:** health professional beliefs, values and appreciation of adolescent health and development;
- **Psychosocial and physiological well-being:** interpersonal competence; assessment and management of common health alterations and chronic health conditions;
- **Healthy behaviours and lifestyles**; and
- **Sexuality and reproductive health**.

Surveying the field

An open-ended questionnaire entitled *Overview of adolescent health and development (ADH) training* was sent to 16 countries in the Region to gain an understanding of the current state of ADH issues and needs in relationship to the training of health professionals. This project phase was intended to be qualitative research, serving as a backdrop to a more detailed curricular checklist used as a second questionnaire.

A convenience sample was utilized, including both developed and developing countries with widely varying cultural influences. The sample included Asian and Pacific countries with health professional training institutions, known ADH activities, or interested and involved colleagues.

Responses to the first open-ended questionnaire, together with supporting documents in many instances, were received from 16 countries. A total of 16 institutions from 13 countries responded to the second questionnaire (see Table 1).

Table 1: Countries participating in the two surveys

First questionnaire	**Second questionnaire** (by institution)	
	Nursing	**Medical**
American Samoa	American Samoa	
Australia		Australia
China	China	
Fiji	Fiji	
Guam	Guam	
Hong Kong (China)	Hong Kong (China)	
Japan	Japan	
Kiribati	Kiribati (2)	
Republic of Korea	Republic of Korea	
Lao People's Democratic Republic	Lao People's Democratic Republic	Lao People's Democratic Republic
Malaysia		
Mongolia		Mongolia
Northern Mariana Islands	Northern Mariana Islands	
Papua New Guinea		
The Philippines	Philippines	Philippines
Viet Nam		

Given the widely varying levels of development of these countries (typical of the entire Western Pacific Region), an attempt was made to group them according to level of development. It was postulated that there might be some correlation between the level of development and the findings of the survey. However, it became evident that the numbers were too small to be of significance in determining variability related to level of development.

Study limitations

Some limitations of the study need to be acknowledged. In this, as in similar survey-based research, it is understood that reporting sources might not always have been able to present an accurate or complete picture of the epidemiological situation in their respective countries. The information requested may not exist or may not have been accessible within the time-frame of the survey. There was also wide variability in the quality and comprehensiveness of the responses to the open-ended questionnaire.

Findings from the first questionnaire

Notwithstanding these limitations and those related to convenience sampling, the first survey questionnaire provides important country data regarding adolescent health and development issues and related national policies, plans and health worker functions. The following is an analysis of findings from the first questionnaire.

Survey Question 1: List the main adolescent health and development concerns/issues in your country.

Findings: All countries in the sample readily identified specific and varied concerns about the health of adolescents, as outlined in Table 2. The three priority issues reported by a majority of countries surveyed were reproductive health, substance abuse, and nutrition. This finding has relevance to the detailed analysis of competencies, particularly in relation to the "healthy behaviours and lifestyles" and "sexuality and reproductive health" domains.

Table 2: Priority issues/concerns on adolescent health and development in 16 countries of the Western Pacific Region

Issue/Concern	Countries (n=16)
Reproductive health (STIs, HIV/AIDS, teen pregnancy, abortion, family planning, teen parenting, responsible sexual behaviour)	14
Substance abuse (including alcohol, tobacco and other drugs)	12
Nutrition (obesity, under-nutrition, poor physical development)	10
Suicide/depression	7
Accidents, injuries	7
Increased morbidity from chronic illness	5

Survey Question 2: Do you have overall national goals (or policies that cover adolescent-related concerns/issues) for adolescent health and development?

Findings: The results revealed that half of the reporting countries have national overarching health goals for ADH or, more commonly, other policies relating to specific issues such as control of infectious diseases, nutrition, reproductive health or mental health, or both.

Survey Question 3: Are there any programmes/ services related to adolescent health and development?

Findings: An overwhelming majority of respondents, 14 out of 16, report the presence within their country of at least some services or programmes targeting young people. For example, school health and health education programmes were common. A health-promoting schools project is underway in Malaysia. The range of services and programmes also encompass community-based ADH initiatives (within health centres in Japan and Mongolia) and hospital-based adolescent clinics (in Australia, Hong Kong

and the Philippines). There are also examples of adolescents' concerns being addressed within overall reproductive health (in American Samoa, Fiji and Viet Nam) and mental health programmes (China).

Survey Question 4: List actual professional responsibilities and tasks of health workers in relation to adolescent health and development.

Findings: As shown in Table 3, professional responsibilities related to ADH encompass teaching, counselling and (less commonly) clinical roles and organizational, professional or advocacy roles (rarely). This finding highlights the need to foster the development of professional and organizational policies and systems to promote ADH within the Region.

Table 3: Professional responsibilities/roles of health workers in adolescent health and development in 16 countries of the Western Pacific Region

Actual Professional Responsibilities/Roles	Countries (n=16)
Teaching	11
Counselling	8
Clinical role	7
Organizational role	3
Professional role	3
Advocacy	2
Not specified	5

Survey Question 5: Do you have an adolescent health curriculum (specific ADH courses or modules within courses) for health professionals?

Findings: Eleven countries in the sample report the existence of some integrated ADH content in nursing courses, which is generally embedded in child health, mental health or community health courses, or is briefly touched upon as part of a reproductive health course. Only two countries mentioned aspects of ADH within medical training curricula.

Table 4: Health professional adolescent health curricula in 16 countries of the Western Pacific Region[1]	
Type of Curriculum	Countries (n=16)
Integrated curriculum	7
No curriculum	5
Separate ADH curriculum or module	4

[1]There was variability in the degree of separation and integration of ADH content.

Summary of findings of the first questionnaire

It is apparent that there is awareness of many ADH concerns in the Region, the three priority issues reported by respondent countries being reproductive health, substance abuse and nutrition. However, there is an obvious need to encourage governments in the Region to pursue the development of national and sectoral policies. The data provided also highlight the need for further development of services and programmes and the inclusion of ADH topics in existing training courses (see recommendations on page).

In search of competencies

The next phase of the project involved the development and utilization of the second questionnaire, entitled *Adolescent health and development curricular review checklist.* The steps in this evolutionary process involved:

(1) review of the literature relevant to ADH competencies, teaching/ learning methodologies and evaluation;

(2) focus group discussions with a group of health professionals involved in education (doctors, nurses, and midwives);

(3) consultations between the University of the Philippines project team and members of the WHO Western Pacific Regional Office Interdisciplinary Adolescent Health and Development Working Group, as well as with key personnel in WHO Headquarters;

(4) participation in the *WHO Technical Meeting on Integrating and Strengthening Adolescent Health and Development in Nursing and Midwifery Preservice Curricula* (held in Cairo, Egypt, from 27 February to 2 March, 2001), which enabled further dialogue with University Schools of Nursing and WHO collaborating centre deans and nursing educators and personnel from WHO Regions and Headquarters; and

(5) consideration of ADH integration issues from a global perspective through consultation with the School of Nursing at the University of Illinois, Chicago and other WHO collaborating centres.

Once completed, the curricular review checklist was sent to institutions in countries that had replied to the initial, open-ended questionnaire. Responses were received from deans/department heads of 16 institutions representing 13 countries, 12 reporting on nursing curricula and four on medical courses. No information was provided on training for midwifery or mid-level practitioners (such as medical assistants, health officers or nurse practitioners). However, these important groups of health professionals will be targeted in a future phase of the project.

Nursing courses are extremely plentiful in the Region, with 194 schools of nursing in the Philippines alone. Medical training is provided at universities in 10 of the 14 countries sampled. Therefore the sample size of this survey is not large enough for generalization. It should be noted that there is a high degree of variability in the nature and comprehensiveness of the checklist responses. However, there is sufficient data from which to draw pertinent conclusions concerning the value of competencies, inclusion of competencies, curricular content, teaching-learning and evaluation methods in the institutions sampled.

The health professional competencies listed in the questionnaire are functions or behaviours (representing knowledge, skills, attitudes and values) that graduates of health professional training programmes are expected to have achieved to ensure that they are prepared to provide health services to adolescents. Following a literature review, discussion and consultations, 67 specific competences were listed for analysis in the curricular review checklist (see Appendix 2). These comprised 30 main competencies plus 37 additional sub-competencies, categorized under the domains of professional development, psychosocial and physiological well-being, healthy behaviours and lifestyles, and sexuality and reproductive health.

Value and curricular inclusion of competencies

The checklist contains a four-point scale (none, low, medium, high) for evaluating the value and importance of each of the listed competencies, as well as a section to determine the extent of inclusion of course content necessary for competency attainment in the training curriculum. Some institutions used focus groups to reach consensus on how competencies were valued.

In analysing the results, a competency was considered to be:

- **Favoured**, if reported as "moderately" or "highly valued" and included in the curriculum
  by a majority (defined as at least 9/16 institutions) of institutions;
- **Neglected**, if valued but not included by a majority of institutions; or
- **Rejected**, if neither valued nor included by a majority of institutions.

There are not a total of 67 competencies listed in Table 5 since there were some competencies for which the results were scattered across the three categories (favoured, neglected, rejected), rather than reflecting a clear majority of institutions.

Table 5: Frequency distribution of responses regarding ADH competencies of health professionals in medical and nursing curricula[1]

Categorization of competencies (n=67)	Number of competencies
Favoured[2]	27
Neglected[3]	18
Rejected[4]	0

[1] Sample size—16 medical and nurse training institutes.
[2] Valued and included in majority of medical and nursing curricula.
[3] Valued but not included in the majority of nursing and medical curricula.
[4] Not valued and not included in the majority of nursing and medical curricula.

A number of general observations can be made about these results concerning the value and inclusion/exclusion of competencies in terms of frequency.

Favoured competencies

The vast majority of competencies are valued by teachers and course organizers. Within the limitations of the sample size and the data available, this finding can be viewed as an overall endorsement of the largely literature-based list compiled. Twenty-seven competencies/sub-competencies are valued and included in a majority of nursing and medical curricula (see Appendix 3), giving an indication of perceived curricular priorities for ADH within the sampled institutions. An analysis of these favoured competencies reveals 10 key competencies (presented here as clusters under the relevant domain).

Professional development domain

- Understands the influence of peer pressure and environment (family, community) on adolescent health and development.
- Follows ethical principles of respect for human rights/dignity, integrity and autonomy.

Psychosocial and physiological well-being domain

- Demonstrates good communication skills, the ability to establish rapport and obtain information from adolescents in a manner that respects diversity, is culturally sensitive and developmentally appropriate.
- Elicits a comprehensive health and psychosocial history.
- Performs a comprehensive physical examination (including blood pressure, physical development, sexual maturity and nutritional status).
- Identifies illness conditions, including altered mental states and mental illness; eating/nutritional disorders; respiratory illnesses, including asthma and tuberculosis; cardiovascular conditions; other conditions, including diabetes; and communicable diseases, including malaria and STIs/HIV/AIDS.
- Together with the adolescent, defines priorities, based on identified health needs and concerns.
- Develops with the adolescent, and his/her family when appropriate, a care plan related to prevention and management of common health problems, including self injury, depression; asthma and tuberculosis; cardiovascular conditions; eating/nutritional disorders and diabetes.

Health behaviours and lifestyles domain

- Identifies and provides counselling for lifestyle practices and health risks, including substance abuse, sexual behaviour and activities, nutrition and eating disorders.

Sexuality and reproductive health domain

- Understands and appropriately describes adolescent reproductive health risks and consequences.

These favoured competencies are highly consistent with the literature and also probably represent a high degree of acceptability of any effort to promote their incorporation into pre-service curricula. They include examples of core knowledge, skills and values.

Neglected competencies

The significance of the findings on neglected competencies cannot be clearly deduced from the data available. It might reflect a reluctance to revise an already over-loaded curriculum, insufficient teaching capacity or inadequate teaching/learning materials within institutions sampled. Alternatively, the listing of neglected competencies might reflect desired content that could be included, should the opportunity arise.

Neglected competencies are discussed below, listed under the relevant domain (related sub-competencies may be grouped together):

Professional development domain

- Understands personal values and attitudes about provision of care to adolescents.
- Creates an environment facilitative of the free expression of opinions and ideas by adolescents.
- Understands the influence of socio-economic status, rural/ urban residence and marital status on adolescent health and development.
- Facilitates the participation of adolescents and other stakeholders in planning, implementing and evaluating health services.
- Utilizes evidence and research findings in planning, implementing and evaluating adolescent health services.
- Where the law does not require otherwise, provides confidential care to adolescents, and discusses with them conditions under which confidentiality would not be upheld.

- Understands and explains laws and policies affecting the adolescent within his/her level of understanding.

Competencies related to an understanding of personal values and beliefs and facilitating the free expression of ideas by adolescents are valued but not included in the majority of curricula, particularly nursing curricula, of the institutions sampled. This finding is notable as the interpersonal competence of health professionals and their abilities to address psychosocial and behavioural aspects of adolescent health require recognition and understanding of differing value and belief systems.

Provision of adolescent health care also requires the flexible adaptation of intervention strategies to the individual needs of each adolescent, which necessitates full exploration of the multiple contextual factors influencing adolescent health and development. Assessment of demographic factors (socioeconomic and marital status and residence - urban/rural) permits a more comprehensive understanding of adolescents' health and their individual health risks and risk behaviours. Researchers have studied the association between adolescent risks for violence, delinquency and drug use and the structure and culture of social settings and neighbourhoods or communities, particularly communities experiencing limited access to economic opportunities and resources (Flannery and Huff, 1999).

The facilitation of adolescent and other stakeholder participation in health service planning and provision is valued but not included in the majority of curricula, particularly medical curricula, of sampled institutions. Collaboration and partnerships with adolescents are key factors influencing their satisfaction with health services.

Another competency, valued but not included or insufficiently included in the majority of sampled curricula, particularly nursing curricula, is the utilization of evidence and research findings in planning, implementing and evaluating health services/care for adolescents. Maximizing the health of adolescents requires knowledge of factors influencing their seeking of health care, their health behaviour risks and protective factors, along with the aspects of encounters between adolescents and health professionals leading to positive and effective interactions. Improvements in health services are very much dependent on the ability of health professionals to alter the way in which services are provided to adolescents, through the application of new information and research findings.

Matters of informed consent by minors are controversial in some countries, particularly where adults enjoy rights that are denied to children and adolescents. However, as these results indicate, it is at least recognized as important, although not included in the curriculum, by most

(predominantly nursing) institutions. Educators of health professionals should be encouraged to address these issues with their students, particularly in light of adolescents' strong desires for maintenance of confidentiality (Ginsburg, Slap and Cnaan, 1995).

Psychosocial and physiological well-being domain

- Together with the adolescent analyses assessment findings, problems and needs, including learning needs, as well as resources available.
- Develops with the adolescent, and his/her family when appropriate, a care plan related to learning problems.

The preceding two competencies related to collaborative analysis of adolescents' needs, problems and resources and plans to address learning problems, are valued but not included in the majority of curricula, mainly nursing curricula, of the institutions sampled. These neglected competencies deserve further analysis and attention as the establishment of collaborative partnerships with adolescents during their health care visits will increase their satisfaction with health services through their experience of less powerlessness and an increased sense of control.

Although school-going adolescents spend more waking time participating in school activities than other activities, the learning problems or difficulties they face may not be recognized in a timely enough manner to permit early and appropriate interventions which prevent more serious problems, including juvenile delinquency, depression and suicidal behaviour in later life. Professional education programmes should prepare health professionals to assess and address, in an interdisciplinary manner, the problems faced by adolescents experiencing learning problems or school adjustment difficulties. Preventive efforts and interventions focused on improving adolescents' school performance, social competence and problem-solving skills can be expected to increase adolescents' protective factors and help to mitigate their risks for aggression, violence and delinquency. These efforts underpin national social and economic development and societal well-being through a strategic focus on developmentally appropriate interventions which support adolescents' school achievement, talent and productivity.

Healthy behaviours and lifestyles

- Develops tools to promote provider recognition and screening of adolescent health risks.
- Selects relevant and appropriate interventions and strategies to build adolescents' life skills and self-care skills.

- Works in partnership with adolescents, families, groups and communities to promote healthy adolescent behaviour and lifestyles.

The competencies related to tool development for adolescent health risk screening and interventions to build adolescents' life and self-care skills are valued but not included in the majority of medical and nursing curricula of the institutions sampled. It may be that some health professionals do not see it as their role to 'develop tools', although the tools can be used, once developed. While helping adolescents to develop specific skills to deal effectively with interpersonal relations, risky situations and life's challenges is recognized as being crucial for their survival and well-being, educators may not have the necessary resources and networks with community organizations to adequately address the building of life and self-care skills in health professional curricula.

The concept of adolescent participation, while a hallmark of best practice in adolescent health, is yet to be accepted as the norm in a number of nursing schools.

Sexuality and reproductive health

- Working with adolescents to build their knowledge, understanding and informed decision-making in relation to sexuality, the range of sexual expression, the risks and consequences of sexual activity and gender issues.
- Adapts sexual and reproductive health services, including antenatal, labour and postnatal programmes, to make provision for adolescent boys and girls.

In regard to the two neglected sexuality and reproductive health domain competencies, this finding may reflect concerns about sexuality among adolescents in some cultures in the Region. However, ensuring optimal adolescent sexual health, including mitigation of risk factors associated with adolescent pregnancy and STIs/HIV/AIDS, requires a more aggressive preventive and interventional counselling and education approach by health professionals, one which addresses adolescent sexual and risk-taking behaviours, regardless of adolescents' ethnicity, marital or socioeconomic status.

Further attention to the provision of appropriate, accessible and non-judgmental care, counselling and support to adolescents will promote their development of responsible sexual behaviours and help to reduce the adverse effects on their development associated with the social, economic and educational challenges faced by adolescent parents, especially mothers.

Rejected competencies

There were no competencies which were rejected (not valued and not included in the curricula) by the majority of nursing and medical schools samples.

Curricular content:

Respondents were asked to provide a written account of the curricular content related to given ADH competencies.

> **Findings:** Certain ADH topics are common to both nursing and medical curricula, such as adolescent growth and development, patient assessment, and identification and management of specific diseases. However, the data are insufficient to enable a detailed analysis of specific content related to each of the competency domains. For one medical respondent, no information was provided.

Teaching-learning methods

The curricular review checklist included the widest possible range of teaching-learning methods used, with examples, including the following (Print, 1993):

(1) **Expository teaching:** lectures, demonstrations, audiovisual presentations

(2) **Interactive teaching:** small group tutorials, discussion, question and answer sessions

(3) **Cooperative learning:** small groups or paired learning

(4) **Inquiry teaching/problem solving:** problem-based or case-based learning

(5) **Self-learning:** programmed learning modules; study guides, independent learning activities

(6) **Simulated or real-life activities:** role-playing, simulations (e.g. use of drama - students to serve as simulated patients), clinical practice and fieldwork

(7) **Other methods:** including learning games; use of adolescent frequently asked questions, etc.

Different teaching-learning methods are suited to different educational needs, although a variety of techniques may be used in combination (see Appendix 4). Evidence suggests that it is most effective to use a variety of teaching methods to involve participants, including experiential activities, role-play, and problem-solving. A number of additional factors have also consistently been identified as important in ensuring attainment of learning outcomes:

- Use of accurate and current information;
- Use of materials and methods that are appropriate for the age, experience, background and readiness of students; and
- Use of strategies that guide students towards self-directed, independent and cooperative learning.

The literature suggests that a good match between teaching-learning methods and desired outcome competencies would be:

- **Value-based competencies** (Professional development domain - health professional values and appreciation of adolescent health and development): interactive, small group and experiential learning;
- **Skills-based and critical-thinking competencies** (Psychosocial and physiological well-being domain - interpersonal competence; assessment and management of common health alterations and chronic health conditions): problem-based learning, demonstrations, clinical practice and fieldwork;
- **Knowledge, attitude and skills-based competencies** (Health behaviours and lifestyles and sexuality and reproductive health domains): a combination of lectures, demonstrations, interactive or peer learning, self-learning, role-plays and other methods, including clinical practice and fieldwork.

Findings: What do the survey findings indicate about the match between teaching-learning methods and the desired student competencies? The initial analysis, while revealing that expository teaching is the most common teaching-learning method used, also shows utilization of a variety of methods. Clearly, capacity is an important determinant of what methods can be used. The survey shows that interactive methods are included. However, problem-based strategies are relatively scarce. This may be because they are time-consuming and require adequate resources and training.

Providing high quality care to adolescents requires an integration of the values, knowledge, and critical-thinking and psychomotor skills of health professionals. Therefore, in order to facilitate students' attainment of core competencies, a variety of teaching-learning methods should be utilized, particularly those that are interactive in nature and which facilitate active, participatory learning, critical thinking and problem solving.

Assessment

Most health professional training institutions regard the assessment of students as a way to test students' knowledge and skills and to provide feedback to students, and as a powerful way to reinforce learning. Experience shows that students tend to focus their attention on content that will be examined and give less priority to material that is taught but not assessed. Integration of teaching, learning and assessment is essential for training of students and the ultimate criterion for any assessment method is its educational relevance. Ideally, the assessment method should match the content and style of the teaching and learning experience and desired outcomes (Rowntree, 1987).

Guiding principles for assessment include the following (Blue et al, 2000):

- The assessment process must clearly specify what is to be assessed by the learner.
- Assessment methods should be selected based on their relevance to learning goals or aspects of performance to be measured.
- Comprehensive assessment should use a variety of methods.
- Selection of assessment methods should be based on recognition of their limitations, particularly their reliability and validity:

  Validity refers to the extent to which an assessment measures what we want to assess, e.g. watching a student assess an adolescent is a more valid way of measuring clinical competence than setting multiple choice questions (which test knowledge rather then skills).

  Reliability refers to how repeatable the assessment is. (A checklist helps to standardize the content of the assessment and differences between students).

- Assessment should serve a useful purpose and not be an end in itself.
- Specific remediation strategies should be developed a priori for those areas in which students are assessed as deficient.

The two main types of assessment are:

- **Summative assessment**, conducted at the end of the course of studies and generally having major implications for the student's future; and
- **Formative assessment,** conducted during the course of the study and aiming to provide feedback to students about their strengths and weaknesses, as well as feedback to teachers on the effectiveness of their teaching.

The Curricular Review Checklist provided the following assessment methods as options for respondents to select:

- **Written examinations:** multiple choice questions, modified essay questions, short answer questions, written case studies.
- **Practical examination:** objective structured clinical examinations; simulated patients; oral examinations.
- **Group project:** problem-based learning cases.
- **Individual project** includes student-developed products such as papers/reports, logbooks, case studies.
- **Other:** simulations (paper-based, computer-based), video exercises, photo exercises.

Findings: Written examination is the method most commonly used to assess competencies in both nursing and medical curricula in the institutions sampled. Practical examination is commonly used to evaluate students' ability to perform physical examinations and to communicate effectively. However, this method is underutilized in evaluating competencies in other domains.

Developing an ADH curriculum

Concepts of integration

There is sufficient literature on identifying core competencies (knowledge, skills and attitudes) for health professionals dealing with adolescents. Various educational principles can be applied to the curricular integration of ADH concepts. For example, topics or competencies can be appropriately included across several years of a given course, with specific modules being offered at certain times. In the four-year preservice course in the University of Sydney Medical Programme, a full week in the nine-week term of Child and Adolescent Health is devoted to ADH, in addition to relevant topics already covered in earlier years. More extensive curricular models exist, e.g., the EuTEACH curriculum (www.euteach.com). The advantage of accessing such a comprehensive and evolving curriculum is that ideas can be extracted and material modified for a particular educational or cultural context.

It must be emphasized that curricular change is challenging and time-consuming. Prior to initiating curricular change, a number of factors are analysed and applied to the curricular planning process, including: (1) changing societal situations, related to socioeconomic changes, epidemiological trends and community expectations; (2) institutional policy requirements based on changes in education or new knowledge and research findings; (3) school and material resources; (4) student abilities and aptitudes; (5) the skills, experiences and teaching styles of educators; and (6) perceived problems or needs, based on needs assessments or curricular evaluations (Print, 1993).

The following preconditions can facilitate the integration of ADH concepts into curricula (Cox, 2000).

- Readiness is a prior condition for change.
- Individuals alone cannot achieve institutional change.
- The commitment of top management is required.
- Education must begin with what the learner is interested in learning
- The first response to innovation is usually passive.
- Messages proposing change must be interesting and persuasive.

- Change requires long preparatory discussion among a supportive group.
- Innovation is a slow process requiring patience and persistence.
- Attitudes to innovation vary, therefore, a range of strategies is called for.
- Implementing innovation involves a host of logistical and communication tasks.

Thus, the integration of ADH into preservice curricula will require strategic and gradual approaches. Good practice models will undoubtedly be helpful (with appropriate adaptation to local needs). However, much will depend upon seizing 'windows of opportunity' within a given curriculum, existing institutional capacity, and the presence of potential innovators (teachers and senior faculty) who can become advocates for change. Supportive clinicians will need to be identified and enlisted. ADH policies, services and programmes may need to be created or strengthened in parallel.

WHO is committed to work with Member States and other partners in strengthening health systems. The integration of ADH into pre-service curricula is part of WHO's priority work in this area and is focused on improving availability, acceptability, accessibility and affordability of services to adolescents.

Recommendations

The insights from the literature review, country and institutional surveys led to the following set of recommendations:

(1) The development of policies, services, programmes and curricula addressing ADH concerns should be promoted in order to improve the health and development of adolescents in the Region. The existence of national ADH policies and programmes provides official recognition of ADH issues and the necessary support for curricular change.

(2) There should be advocacy programmes targeted to policy-makers, health care providers and educators to raise awareness of the importance of adolescent participation in matters related to their health and well-being. Advocacy would be enhanced through strengthening the linkages of research findings to practice, service provision and health professional education.

(3) Curricular monitoring and evaluation, using epidemiological data, reports and surveys, should be an established process in health professional education institutes. The process should include the identification and monitoring of critical health events, policies and programmes, in combination with the ongoing evaluation of training programme effectiveness.

(4) Specific core competencies which may be unique to various categories of health professionals should be further delineated, in order to facilitate relevant and appropriate training in ADH.

(5) Good practice examples of ADH curriculum development should be identified and disseminated, paying particular attention to the inclusion of 'favoured' or core competencies.

(6) A well thought out curricular change strategy is required, as is the identification of change agents and curriculum development team members. Mapping a path through favoured, neglected and rejected competencies will facilitate the generation of group acceptance of the need for curricular change while minimizing resistance to change through a planned, step-wise approach. Such an approach not only presents the favourable characteristics of a curriculum, but also augments any perceived need for curricular change, by correlating curricular elements with educator's common interests and values.

(7) High quality ADH curricular guidelines and informational materials, along with informational or training workshops, should be utilized in curricular change processes to facilitate the use and application of practical, realistic and evidence-based training materials.

(8) Suitable entry points for integration of ADH concepts should be identified on a case-by-case basis, while fully utilizing potential opportunities for change. The introduction of problem-based learning, or revisions in programme or course evaluation tools, for example, present splendid opportunities for initiation of curricular change.

(9) Institutional capacity to incorporate, through curricular change, ADH concepts, teaching/learning methods and assessment into pre-service courses should be developed further. Institutional capacity-building activities include strengthening the capabilities of educators of health professionals to teach ADH issues. Utilizing and applying ADH research findings to the education of health professionals is a foundational step in the capacity-building process.

(10) The capacity of institutions to use an appropriate mix of teaching-learning and assessment methods, suited to the desired outcome competencies, particularly those that promote interactive and participatory learning, critical thinking and problem-solving skills, should be increased.

(11) Health professional student clinical and fieldwork assignments should include placement in community organizations or settings, such as youth centres or school or community health clinics located on or near school campuses. In these convenient and accessible settings, health professional students may have opportunities to participate in innovative school health promotion programmes for adolescents. They will also have greater opportunities to acquire skill in addressing adolescents' health-risk behaviours and in strengthening their protective factors and overall personal competence. Education/community collaboration and partnerships also serve to increase health professional students' understanding of social issues in adolescent health care, valuing of youth, being of service to others and their development of skill in providing culturally and interpersonally competent care to adolescents.

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Appendix 1

The Project Team

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Appendix 2

Adolescent health and development curricular review checklist

Adolescent health and development curricular review checklist

Competencies	Value of competencies	Curricular content	Curricular content, teaching-learning and evaluation methods	
	From your point of view, how valuable are the competencies listed under each of the following categories in the education of health of health professionals who will provide health services to adolescents in your country ?	Identify to what degree the content related to this competency is included in your present curriculum. 0 for absent 1 for weak or insufficient for attainment of competency; 2 adequate for minimum development of competency; 3 for strong or sufficient for competency development	If the competency is included in the curriculum, please list the related curricular content and the teaching-learning methods used in preparing students to attain the competency. When listing teaching-learning methods, please choose from one or more of the options listed below. Expository teaching: lecture, demonstration, audiovisual presentation. Interactive teaching: discussion, question and answer sessions. Cooperative learning: small group or paired learning. Inquiry teaching/problem-solving: problem-based or case-based learning Self-learning: programmed learning modules; study guides; independent learning activities. Simulated or real-life activities: role-playing; simulations; clinical practice Other methods: please specify	List evaluation methods used to assess and evaluate student performance. attaining compe Written exam WE Practical exam PE Group project GP Individual project IP Other O

	Value Circle appropriate number				Curricular content Circle appropriate number				Content List related content and corresponding year in the training programme		Teaching-learning methods Check appropriate box(es)							Evaluation List method(s)
	None	Low	Medium	High	Absent	Weak	Adequate	Strong	Content	Year	Expository	Interactive	Cooperative	Inquiry Problem-solving	Self-learning	Simulated or real life activities	Other methods	WE, PE, GP, IP, O (please specify)
A. Professional Development - Health Worker Values and Socialization for Adolescent Health and Development																		
1. Understands and appropriately desribe personal values and attitudes about providing health services/care to adolescents.	0	1	2	3	0	1	2	3										
2. Creates a conducive environment for free expression of opinions and deas by adolescents.	0	1	2	3	0	1	2	3										
3. Demonstrate practices which reflect PHC principles and/or other appropriate theoretical frameworks that support adolescent health and development.	0	1	2	3	0	1	2	3										

4. Understands and appropriately explains how the following factors affect the health and health needs of adolescents: - gender - socio-economic status - ethnicity - rural/urban residence - peer pressure - environment e.g. family, community - media - employment status/economic status - marital status	0	1	2	3	0	1	2	3										
5. Facilitates the participation of adolescents and other stakeholders in planning, implementation and evaluation of services rendered in practice settings.	0	1	2	3	0	1	2	3										
6. Collaborates with families, adolescents' peers and other professionals (health, social, education, and justice) when appropriate.	0	1	2	3	0	1	2	3										
7. Utilizes evidence and research findings in planning, implementing and evaluating health services/care for adolescents.	0	1	2	3	0	1	2	3										
8. Follows ethical principles of respect for human rights/dignity, integrity and autonomy.	0	1	2	3	0	1	2	3										
9. Where the law does not require otherwise, provides confidential care to adolescents, and discusses with them conditions under which confidentiality would not be upheld.	0	1	2	3	0	1	2	3										
10. Understands and explains laws and policies affecting the adolescent within his/her level of understanding.	0	1	2	3	0	1	2	3										

B. Psychosocial and Physiologic Well-Being (Assessment, Problem Identification, Planning, Implementation and Evaluation)																
11. Demonstrates the ability to obtain information from adolescents in a manner that: - respects diversity; - is culturally sensitive; - is developmentally appropriate; and - establishes rapport.	0	1	2	3	0	1	2	3								
12. Demonstrates good communication skills e.g., reflective listening, asking open-ended questions, encouraging, positive body language.	0	1	2	3	0	1	2	3								
13. Demonstrates skill in observing appearance and in observing and monitoring nonverbal communication, demeanor and behaviour.	0	1	2	3	0	1	2	3								
14. Elicits a comprehensive health history, including: presenting problem, health habits and health risks, family functioning, social and school situation, and socio-economic, cultural, and spiritual factors.	0	1	2	3	0	1	2	3								
15. Assesses adolescents' stressors, vulnerabilities, coping mechanisms, personal strengths, and use of available support and community resources.	0	1	2	3	0	1	2	3								
16. Using relevant and appropriate interviewing skills, elicits a psychosocial history, investigates sensitive topics and assesses: - psychosocial development; - cognitive development; - moral/ethical development.	0	1	2	3	0	1	2	3								

17 Performs physical examination, including: - blood pressure screening;	0	1	2	3	0	1	2	3											
-assessment of physical development;	0	1	2	3	0	1	2	3											
-assessment of nutritional status;	0	1	2	3	0	1	2	3											
-assessment of sexual maturity; and	0	1	2	3	0	1	2	3											
-screening for alterations in anatomic	0	1	2	3	0	1	2	3											
structure and physiological processes.	0	1	2	3	0	1	2	3											
18. Identifies illnesses, including:	0	1	2	3	0	1	2	3											
18.1-altered mental status, mental illness;	0	1	2	3	0	1	2	3											
18.2- nutritional, eating disorders;	0	1	2	3	0	1	2	3											

18.3-respiratory disorders, including asthma tuberculosis;	0	1	2	3	0	1	2	3		
18.4- cardiovascular diseases/conditions, including elevated blood pressure or hypertension; cardiac diseases;	0	1	2	3	0	1	2	3		
18.5-other diseases, including diabetes; and	0	1	2	3	0	1	2	3		
18.6-communicable diseases, including malaria, STIs/HIV/AIDS	0	1	2	3	0	1	2	3		
19. Together with the adolescent:	0	1	2	3	0	1	2	3		
19.1 consolidates and analyzes assessment findings, including physical and psychological assessments, screening and diagnostic test results, and existing records;	0	1	2	3	0	1	2	3		
19.2 identifies learning needs; and	0	1	2	3	0	1	2	3		
19.3 analyzes identified problems/needs, probable causes/contributory factors as well as resources available to help solve such needs	0	1	2	3	0	1	2	3		

19.4 defines priorities, based on identified health needs and concerns; and	0	1	2	3	0	1	2	3											
19.5 discusses issues and concerns affecting adolescent rights, privileges and responsibilities.	0	1	2	3	0	1	2	3											
20. Develops with the adolescent and his/her family when appropriate, a care plan based on identified priorities, including realistic goals and objectives in measurable terms, and relevant and appropriate interventions and strategies related to:	0	1	2	3	0	1	2	3											
20.1 self-care in regard to minor illnesses and injuries;	0	1	2	3	0	1	2	3											
20.2 prevention and management of common health problems (and referrals as needed), including:	0	1	2	3	0	1	2	3											
20.2.1 self-injury, depression;	0	1	2	3	0	1	2	3											
20.2.2 learning problems;	0	1	2	3	0	1	2	3											
20.2.3 asthma, tuberculosis;	0	1	2	3	0	1	2	3											
20.2.4 cardiovascular diseases, including hypertension, cardiac conditions	0	1	2	3	0	1	2	3											

20.2.5 eating/nutritional disorders;	0	1	2	3	0	1	2	3		
20.2.6 diabetes	0	1	2	3	0	1	2	3		
20.2.7 communicable diseases, including malaria, STIs/HIV/AIDS	0	1	2	3	0	1	2	3		
20.3 provision of rehabilitative services.	0	1	2	3	0	1	2	3		
21. Monitors adolescents' reactions/responses and determines effectiveness of care/ interventions.	0	1	2	3	0	1	2	3		
C. Healthy Behaviours and Lifestyles										
22. Promotes adolescents' development of healthy lifestyles through assessment of individual, family and community health practices, utilizing health promotion strategies.	0	1	2	3	0	1	2	3		
23.Develops tools to promote provider recognition and screening of adolescent . health risks.	0	1	2	3	0	1	2	3		
24. Identifies and provides counselling for lifestyle practices and health risks or concerns, including:	0	1	2	3	0	1	2	3		

24.1 behaviour risks, e.g. substance abuse (alcohol, tobacco and drugs), sexual behaviours and activities	0	1	2	3	0	1	2	3											
24.2 amount and type of physical activity	0	1	2	3	0	1	2	3											
24.3 nutritional habits; eating disorders	0	1	2	3	0	1	2	3											
24.4 immunization status/needs	0	1	2	3	0	1	2	3											
24.5 injury prevention, safety precautions	0	1	2	3	0	1	2	3											
24.6 management of stress, emotions; depression, self-injury potential;	0	1	2	3	0	1	2	3											
24.7 family and environment-e.g. physical abuse, sexual abuse, violence	0	1	2	3	0	1	2	3											
25. Selects relevant and appropriate interventions and strategies related to: 25.1 enhancing self-worth (self-esteem);	0	1	2	3	0	1	2	3											

25.2 building life-skills and self-care skills (decision making, negotiating, refusal, self-management, coping strategies, risk identification skills, protective factors)	0	1	2	3	0	1	2	3		
25.3 discussions and counselling of issues and concerns affecting adolescent rights, privileges, and responsibilities.	0	1	2	3	0	1	2	3		
26. Works in partnership with adolescents, families, groups, and communities to promote healthy adolescent behaviour and lifestyles.	0	1	2	3	0	1	2	3		
D. Sexuality and Reproductive Health										
27. Understands and appropriately describes the reproductive health risks (unintended pregnancy, STIs, unsafe abortion, gender-based violence, sexual abuse) and consequences (medical, psychological, social, economic) for adolescents.	0	1	2	3	0	1	2	3		
28. Works with adolescents to build their knowledge, understanding, informed decision-making and self-responsibility, in relation to sexuality, the range of sexual expression, the risks and consequences of sexual activity, contraception, fertility and gender issues.	0	1	2	3	0	1	2	3		
29. Adapts sexual and reproductive health services, including antenatal, labour and postnatal programmes, to make provision for adolescent boys and girls.	0	1	2	3	0	1	2	3		

30. Promotes positive parenting skills among adolescent boys and girls who are parents.	0	1	2	3	0	1	2	3		
31. Other competencies (please specify)	0	1	2	3	0	1	2	3		

Please attach any additional information or comments.

Country _____ Institution _____ Please identify the curriculum being evaluated: ___ Medicine ___ Midwifery ___ Nursing

___ Other (please specify): _____

Questionnaire completed by:

Name, Title _____

_____

Date _____

Thank you for completing this questionnaire.

Appendix 3

Favoured, neglected and rejected adolescent health and development competencies in medical and nursing school curricula[1]

Favoured competencies (valued and included in the majority of both medical and nursing curricula)

Professional development domain[2]

- Understands the influence of peer pressure and environment (family, community) on adolescent health and development.
- Follows ethical principles of respect for human rights/dignity, integrity and autonomy.

Psychosocial and physiological well-being domain[2]

- Demonstrates the ability to establish rapport and obtain information from adolescents in a manner that respects diversity, is culturally sensitive and developmentally appropriate.
- Demonstrates good communication skills.
- Elicits a comprehensive health history, including presenting problem, health habits and health risks, family functioning, social and school situation, and socio-economic and spiritual factors.
- Assesses adolescents' stressors, vulnerabilities, coping mechanisms, personal strengths, and use of available support and community resources.
- Using relevant and appropriate interviewing skills, elicits a psychosocial history, investigates sensitive topics and assesses psychosocial development, cognitive development and moral/ethical development.
- Performs a physical examination, including blood pressure screening, assessment of physical development and sexual maturity and assessment of nutritional status.
- Identifies illnesses, including¾altered mental status, mental illness; nutritional, eating disorders; respiratory disorders, including asthma, tuberculosis; cardiovascular diseases/conditions, including elevated blood pressure, hypertension and cardiac diseases; other diseases, including diabetes and communicable diseases, including malaria, STIs/HIV/AIDS.
- Together with the adolescent, defines priorities, based on identified health needs and concerns.
- Develops with the adolescent and his/her family, when appropriate, a care plan based on identified priorities, including realistic goals and objectives in measurable terms, and relevant and appropriate interventions and strategies related to the prevention and management of common health problems (and referrals as needed), including: self-injury, depression; asthma and tuberculosis; cardiovascular diseases, including hypertension and cardiac problems; eating and nutritional disorders; and diabetes.

Healthy behaviours and lifestyles domain[2]

- Identifies and provides counselling for lifestyle practices and health risks or concerns, including: behaviour risks, e.g. substance abuse (alcohol, tobacco and drugs), sexual behaviours and activities; and nutritional habits and eating disorders.

Sexuality and reproductive health[2]

- Understands and appropriately describes reproductive health risks (unintended pregnancy, STIs, unsafe abortion, gender-based violence, sexual abuse) and consequences (medical, psychological, social, economic) for adolescents.

[1]Sample composed of 16 medical and nursing school curricula

[2]Related sub-competencies may be grouped together.

Neglected competencies (valued but not included in the majority of both medical and nursing curricula)

Professional development domain[2]

- Understands and appropriately describes personal values and attitudes about providing health services/care to adolescents.
- Creates a conducive environment for the free expression of opinions and ideas by adolescents.
- Understands and appropriately explains how socio-economic status, rural/urban residence and marital status affect the health and health needs of adolescents.
- Facilitates the participation of adolescents and other stakeholders in planning, implementation and evaluation of services rendered in practice settings.
- Utilizes evidence and research findings in planning, implementing and evaluating health services/care for adolescents.
- Where the law does not require otherwise, provides confidential care to adolescents, and discusses with them conditions under which confidentiality would not be upheld.
- Understands and explains laws and policies affecting the adolescent within his/her level of understanding.

Psychosocial and physiological well-being domain[2]

- Together with the adolescent consolidates and analyses assessment findings (including physical and psychological assessments, screening and diagnostic tests, existing records).
- Together with the adolescent identifies learning needs.
- Together with the adolescent analyses identified problems/needs, probable causes/contributory factors, as well as resources available to help solve such needs.
- Develops with the adolescent and his/her family when appropriate, a care plan based on identified priorities, including realistic goals and objectives in measurable terms, and relevant and appropriate interventions and strategies related to the prevention and management (and referrals as needed) of learning problems.

Healthy behaviours and lifestyles domain[2]

- Develops tools to promote provider recognition and screening of adolescent health risks.
- Selects relevant and appropriate interventions and strategies related to building life-skills and self-care skills (decision-making, negotiating, refusal, self-management, coping strategies, risk identification skills, protective factors).
- Works in partnership with adolescents, families, groups and communities to promote healthy adolescent behaviour and lifestyles.

Sexuality and reproductive health[2]

- Works with adolescents to build their knowledge, understanding, informed decision-making and self-responsibility, in relation to sexuality, the range of sexual expression, the risks and consequences of sexual activity, contraception, fertility and gender issues.
- Adapts sexual and reproductive health services, including antenatal, labour and postnatal programmes, to make provision for adolescent boys and girls.

[1]Sample composed of 16 medical and nursing school curricula

[2]Related sub-competencies may be grouped together.

Appendix 4

Teaching-learning methods

(1) **Expository teaching**: lectures, demonstrations, audiovisual presentations

Lectures provide students with a structure and guide to learning a topic; an overview of a complex topic and perspective; information that is not provided elsewhere. **Demonstrations and audiovisual** presentations provide visual experiences of events or procedures that are difficult to describe (eg physical examination), an overview of a task or procedure before students begin to practice

(2) **Interactive teaching**: small group tutorials, discussion, question and answer sessions

Small **group tutorials** involve students as active participants, develop communication skills and skills in teamwork and cooperation (applies also to cooperative learning), provide practice in applying knowledge to problems or tasks, promote new ideas and attitudes, allow for clarifying understanding of a topic.

(3) **Cooperative learning**: small groups or paired learning

(4) **Inquiry teaching/problem solving**: problem-based or case-based learning

Problem-based or case-based learning require students to work effectively in groups; acquire facilitation, critical-thinking and decision-making skills; research themes and topics arising out of the case; and teach each other.

(5) **Self-learning**: programmed learning modules; study guides, independent learning activities

Self-learning helps students learn how to rely on their own judgement, become increasingly independent, learn outside the classroom and prepare for lifelong continuing education.

(6) **Simulated or real-life activities**: role-playing, simulations (eg use of drama students to serve as simulated patients), clinical practice and fieldwork

Role-playing enables students to explore emotions involved with a topic, try new behaviour and attitudes in a safe setting similar to the real one, and explore relationships and why people behave as they do. **Clinical practice or fieldwork** teaches practical skills and procedures, provides real-life practice in dealing with patients' problems, provides self- awareness and exposes students to suitable role models.

(7) **Other methods**: learning games (along the lines of the TV programme Jeopardy), use of an adolescent FAQ (frequently asked questions)

Appendix 5

Assessment methods

(1) **Written examinations (WE)**: multiple choice questions (MCQ), modified essay questions (MEQ), short answer questions, written case studies

(2) **Practical examination (PE)**: Objective structured clinical examinations (OSCEs); simulated patients; oral examinations

The **objective structured clinical examination** (OSCE) was **developed by Hardin and colleagues in England in 1975** [1] (Dupras and Li, 1995) **and initially intended for medical students.** It is a multistation examination composed of a written station (theoretical part) and a skills station (practical or procedural part). The number of stations depends on the number of competencies to be tested, because the OSCE works best in a competency-based curriculum. For example, OSCE can be used to assess clinical competence through direct observation of clinical assessment (history-taking, communication skills and physical examination), treatment procedures and counselling (with or without supervisor rating scales/checklists).

Oral examinations, on the other hand, and not only written ones, may be used for the evaluation of a range of cognitive and affective domains. For example, oral examinations can provide evidence of thinking processes through 'why' questions as well as determine communication skills, content mastery and evidence synthesis.

(3) **Group project (GP**): Problem-based learning cases (PBLs)

(4) **Individual project (IP)** includes student-developed products, such as papers/reports, log books, case studies

(5) **Other:** simulations (paper-based, computer-based), video exercises, photo exercises

Other assessment methods such as **multi-media-audio/video tapes** can be effective for all types of cognitive and affective evaluation, especially communication (verbal and non-verbal), can enable a permanent record of the student's work and is relevant for self-evaluation.