

Adolescent Health Education Programmes: Theoretical Principles in Design and Delivery

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Abstract

The patterns of health need in youth have changed over the last three decades with increasing rates of psychosocial problems compromising adolescent development and affecting the patterns of morbidity and mortality in adult years. This has increased the public health interest in health promotion, early detection and preventive health care for adolescents. Yet, young people report significant barriers to accessing the health care system, and health professionals report a self-perceived lack of competency and prior training in adolescent health, especially in these areas of youth health need. There is an imperative to provide quality professional development for existing health professionals and undergraduates in adolescent health care. This paper will discuss a model of professional knowledge in adolescent health and the evidence-based principles in design and delivery of effective education programmes. It will also review the published evaluations of adolescent education programmes and outcomes that still require evaluation in the future.

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Introduction

Over the past three decades, the patterns of health need in youth have changed. Psychosocial problems such as depression, substance abuse, eating disorders, sexually transmitted infections and unplanned pregnancy, accidental and intentional injury, including suicide, affect youth disproportionately and appear to be increasing.¹ Health problems and health compromising behaviours tend to cluster in individuals,^{2,3} so that young people with one health risk need to be assessed more broadly for others.² In addition, longer survival in young people with chronic illnesses and disabilities has introduced complex psychosocial and behavioural problems.⁴

Health problems established during adolescence have major implications for adult morbidity and mortality, and for the burden of disease to society. This recognition underlies growing public health interest in the scope for early detection, prevention, and health promotion in adolescence. To be effective with young people, these practices require a shift in emphasis from an isolated disease-focussed message about reducing risk, to a more holistic, bio-psychosocial approach taking into account

adolescents' developmental stage, risk, and protective factors, as well as the social, cultural and global environmental contexts in which they live.^{5,6}

Adolescent health is a discipline where primary care providers, medical specialities, and other professions dealing with youth, such as allied health and welfare, teachers, and juvenile justice must work together to deliver high quality and easily accessible care.⁷ The clinician working with youth needs skills to identify a range of issues beyond the presenting problem,⁸ and the practical knowledge to enable working with other disciplines in a coordinated fashion.

Self-perceived lack of training, skills and confidence in their ability to provide care for young people, particularly in the psychosocial and health promotion areas, has been cited as a major barrier to adolescent healthcare delivery by health professionals.⁸⁻¹⁴ Furthermore, studies in Australia, North America, and the United Kingdom report that young people perceive barriers to accessing health care, especially for more sensitive issues.^{12,15,16}

With this gap between the health needs of adolescents

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and the knowledge, skills and attitudes required by clinicians to meet these needs, there is an imperative for professional development in adolescent health across disciplines.^{8,14,17-20} High interest in increasing knowledge and skills in communicating with adolescents, health promotion strategies, and adolescent development and advocacy has been expressed across disciplines.²¹

There is a considerable evidence base of educational strategies that increase the likelihood that an education programme will be successful in helping participants gain and retain the required competencies to be effective in practice. These strategies take into account theories of programme design, adult learning principles, and psychological theories on learning and change.²²

This paper is structured into three parts. The first part proposes a model of professional knowledge in adolescent health. Under each domain of professional knowledge, suggested topics to include in an education programme are discussed along with the rationale for their inclusion. The second part presents evidence-based principles of effective educational programme design and delivery. The third part presents a brief overview of published evaluations of training programmes in adolescent health.

Professional Knowledge in Adolescent Health

Professional knowledge is defined as “the cumulated information or understanding derived from theory, research, practice, or experience considered to contribute to the profession’s understanding of its work and that serves as a guide to its practice”.²³ The three domains of professional knowledge include “theoretical knowledge”, “procedural knowledge”, and “practical skill knowledge”.²⁴ Professional development is concerned with transforming theoretical and procedural knowledge into practical knowledge, so that new skills are available to apply in real work environments.

Theoretical Knowledge

The theoretical knowledge required in adolescent health provides the framework for conceptualising the adolescents’ problems in their context, understanding adolescent behaviour, and formulating an approach to their problems. Two theoretical frameworks are particularly relevant to a clinician’s work with young people. The first, “an ecological model of resilience”, helps to explain the factors that influence health behaviours.⁶ An understanding of adolescent development provides the second framework guiding the practice of clinicians.

The Ecological Model of Resilience

The ecological model of resilience was first posed by Bronfenbrenner and more recently by Blum and his colleagues.⁶ It takes a holistic view of a young person’s life

describing risk and protective factors across peer, school, and family influences (micro- and mesosystem), within the broader community (exosystem) and the socio-economic, cultural, political, religious, and legal contexts of society (macrosystem).²⁵ Notable protective factors include connectedness to family and school, and inherent biological factors such as cognitive abilities.²

With this model in mind, the clinicians are guided in their process of broadly screening adolescent patients for risk and protective factors operating in their lives and then, taking these into account, assessing their patients’ overall level of health risk or vulnerability. The HEADSS assessment,²⁶ covering each of the major areas in a young person’s life, has been widely and successfully used in education programmes in adolescent health.²⁷⁻³⁰ It trains health professionals to screen young people for psychosocial health risk and provide health promotion messages. Training in communication skills with the art of active listening and non-judgemental questioning is a necessary accompaniment to training in the HEADSS screen.²⁶

Understanding Adolescent Development

Understanding the processes and characteristics of normal adolescent growth and development is not only important for identifying teenagers at risk but, for being able to reassure adolescents and parents of normality and for targeting communication, health promotion and management at a developmentally appropriate level. Understanding adolescence is assisted when the definition encompasses the unique developmental challenges that face an individual in this phase of life, rather than relying solely on age.

According to a developmental perspective, adolescence is a normal phase of the life cycle during which the child matures into an adult with rapid development in physical, cognitive, social and emotional states occurring concurrently, often asynchronously and interspersed with periods of regression.³¹ For various and complex reasons, it is “a time of social experimentation, limit testing, and risk-taking”.³²

The tasks include achieving autonomy, a realistic, positive and stable identity, a sexual identity, peer relationships, a realistic body image, a moral value system and vocational or educational goals.³³ The terms “early”, “middle” and “late” adolescence are frequently used to group the most common tasks being undertaken at a certain developmental stage and also serve to remind us that adolescents are not homogenous.^{31,32} Different stages of development require different approaches.

Whilst the psychosocial tasks of maturity may differ between cultures and throughout history, the cognitive processes of maturation are similar for all young people in

past and present societies.^{34,35} Cognitive development is especially important in the ability of adolescents to understand abstract concepts such as health and prevention.³⁶ Keeping health promotion messages concrete and relevant to the present can be important for adolescents, who have not developed a future time perspective or formal operational thought processes.

Young people vary widely in their knowledge of health issues, especially mental health issues, the ability to express their health problem, confidence, and help-seeking skills. Many would benefit from developmentally appropriate programmes to promote health and well-being by building self-esteem and imparting the skills to cope with the stresses of daily life, including appropriate help-seeking behaviour.¹⁷

Young people do not necessarily equate their risky behaviours, such as smoking and drinking, with a health-related issue and may not therefore raise these behaviours in discussion with health professionals.³⁷ Many adolescents also fear asking questions of their doctors in case they shock the doctor.³⁸ They may be unaware of the services available and how to access them.^{13,15} This increases the necessity for health professionals to sensitively and proactively screen young people for health risks and to assist young people to learn about, and feel comfortable with the process of accessing help.^{26,27,39}

Procedural Knowledge

Procedural knowledge is defined as “the policy, legislation and organisational rules or guidelines within which a profession must function”.²³ Procedural knowledge frames the context in which one works and offers guidelines to assist the action of professionals. In adolescent health, examples of procedural knowledge include medico-legal issues, government and organisational policies, and the profession’s Code of Ethics.

Lack of knowledge of the region-specific medico-legal issues in dealing with minors is a barrier for clinicians delivering quality health care to young people, so these should be included in education programmes.⁴⁰ In Australia, informed consent from adolescents presenting for medical treatment without the knowledge and consent of parents, and confidential health care are key medico-legal issues in consulting with minors. Laws governing mandatory reporting of sexual or physical abuse and the issue of national health care cards are also relevant to the practice of adolescent health care in Australia.

Some health issues dealt with in adolescence, such as unplanned pregnancy, early sexual activity, suicidal behaviour or substance abuse, may raise ethical dilemmas for practitioners working with youth. An opportunity for clinicians to reflect on their ethical position and to learn

strategies for dealing with personal ethical dilemmas so that adolescents do not feel judged and the clinician’s ethical position is not compromised, is helpful in education programmes.^{41–43} Generally, physicians support confidential health care for young people.^{41,44,45}

Opponents of maintaining confidentiality believe parental guidance is necessary in healthcare decisions, especially as they relate to sex or drug issues, that families are best at understanding their child’s needs, and it is the parents’ right to know when their children receive health care.⁴¹ Lack of confidentiality is a barrier for adolescents accessing services.⁴⁴ Clinicians require the skills of both working with parents and adolescents together and recognising when it is more appropriate to keep confidentiality and work with young people on their own. Once young people trust the practitioner, many feel more comfortable about involving parents if appropriate. In the situation that the young person’s life is in danger, or they are being sexually or physically abused or putting someone else’s life in danger, practitioners are required to break confidentiality, and obtain involvement of parents or other agencies for the young person’s protection.

Practical Skill Knowledge

There are two important examples of practical skill knowledge in adolescent health: a) knowledge of young people’s barriers to healthcare access is important in healthcare design and delivery for youth; and b) knowledge of other health and welfare professionals working with youth (interdisciplinary practice) is important for coordination of holistic healthcare.

Youth Barriers to Accessing Healthcare

Healthcare professionals require an appreciation of the barriers youth perceive in accessing care in order to ensure their consultation skills and the systems within which they work, facilitate positive engagement of young people. Millstein⁴⁶ categorises youth barriers to health access into 5 major groups: confidentiality, communication, compassion, convenience and cost issues. Professionals need practical skills to address these concerns.

Confidentiality is a major concern for adolescents in most studies.^{10,15,47,48} Particular concerns exist around parents or others finding out about the consultation. Adolescents are more trusting and willing to disclose information and seek health care when it is explained to them that a service is confidential.⁴² Training in the skill of discussing the terms of confidentiality with teenagers and policy for the provision of confidential health care to young people is recommended.^{42,43,46}

Communication and compassion: Adolescents prefer certain provider characteristics, including those who have

the ability to communicate in an open, non-judgemental and honest way and to show empathy, warmth and kindness, as opposed to being impersonal, patronising or unfriendly.^{6,38,48,49} Clinicians who use medical jargon, have poor listening skills, and ask personal questions without an explanation or permission are not favoured.⁴⁷

Convenience and cost issues: Adolescents prefer clinical environments where the staff is friendly and understanding, cleanliness is obvious, cost is reasonable and where some waiting room material is relevant to their age group.¹⁶ Ways to create “adolescent friendly” clinics have been suggested.^{16,48,50}

Interdisciplinary Practice

Many barriers to psychosocial health risk screening have been attributed to lack of knowledge of how to deal with any problems that are identified.⁵¹ Physicians need a practical understanding of the health and welfare resources available to manage important problems, and the knowledge and skills to work with other health and welfare professionals in an interdisciplinary framework. Education programmes can include interdisciplinary education programmes so that each discipline can be taught directly by other disciplines about their role in youth health care, methods of working, and appropriate referral pathways.⁷

Principles of Effective Educational Programme Design and Delivery

Education programmes are most likely to be effective if they are designed with sound educational principles based on evidence. There is a vast and complex literature about adult learning and change drawing from the fields of psychology, philosophy, education and sociology. There is also a growing evidence base on the way physicians learn and on evaluation of medical teaching activities. Some of the principles found useful in our successfully evaluated adolescent healthcare course will be presented here.⁵²

Diagnosis of Learning Needs and Barriers

In their seminal review paper on randomised controlled trials evaluating the effectiveness of continuing medical education activities, Davis and colleagues⁵³ reported that traditional education, for example with lectures alone, is unlikely to produce a change in the practice of doctors. Generally, the more effective programmes incorporate a high level needs analysis, so that specific gaps in performance or barriers to change are targeted.⁵³⁻⁵⁵

The studies of Veit and associates^{12,13} explored the barriers Australian physicians perceived in delivering health care to adolescents and provided a detailed needs analysis for the intervention by Sanci and colleagues.⁵² These barriers and others cited in the broader literature were addressed in

the education programme and included personal or attitudinal barriers, misconceptions about the health status of youth, and barriers to health risk screening.

Personal or attitudinal barriers: Whilst most physicians enjoy working with adolescents,^{9,13,40} negativity seems to stem from difficulties in communication making the consultation longer and harder.^{12,40} In addition, memories of the clinician’s own adolescence can affect their approach to young people unless they are aware of these feelings.⁵⁶

Misconceptions about the health status of youth: Attitudes that consider adolescent angst and turmoil is normal, deflect attention from some key indicators of morbidity in young people.⁵⁷ Significant sadness, serious risk-taking, turmoil, or family conflict in adolescence are possible indicators of psychological distress and mandate a full risk assessment.⁵⁸ Similarly, the attitude that adolescents are healthy because they are physically well can delay detection of psychopathology.⁶

Anticipatory guidance or health promotion on personal or sensitive issues such as sexuality, depression, or sexual abuse is less likely to be provided by physicians than anticipatory guidance on medical problems.¹⁰ Physicians may deny that such sensitive issues are relevant to the young people they see, even though they may believe they are relevant to the practices of others.⁵⁹ Some doctors believe young people are not themselves motivated regarding their own health care and have few health concerns.⁶⁰

Barriers to screening: The time and commitment needed to manage adolescent issues are important barriers.²¹ Physicians tend to screen for psychosocial health risk only if these are relevant to the presenting issue, and have a low likelihood of screening for mood problems.⁶¹ This is of concern, given the prevalence of psychosocial distress in young people and their reluctance to present to doctors with such distress.⁶²

Choice of Learning Strategy to Deal with Barriers

After the learning needs analysis, Davis and colleagues²² have suggested two important components of effective medical education. The “primary strategy” describes educational activities that are focused on changes in knowledge, skills and attitudes of the physician. These strategies are chosen to tackle the specific needs of the learner group and include lectures, conferences, role plays, printed material, audio-visual aids, and computer-assisted learning. The “secondary strategy” describes the factors which focus on helping the clinician transfer this learning from the “classroom” to the working environment.²² These strategies include flow charts of steps to follow, patient education materials, reminders, and feedback. The combination of primary and secondary components in each

educational activity will increase the likelihood that learning will result in a change of practice.

Multi-faceted educational interventions that combine a number of different learning strategies to address a wide range of learning needs simultaneously are most effective.⁵³⁻⁵⁵ For interventions designed to train physicians in lifestyle counselling skills, the use of peer discussion and opportunity to practise communication skills produced positive results along with the use of simulated patients, role play and videotapes.⁶³

Translating Learning to Work or Practice Environments

Professional development has not occurred unless there are strategies to help learners transform theoretical knowledge into practical skills that they are willing and able to use in their routine practice. The success of this depends more on the clarity of instruction, opportunity to practise, similarity of the learned task with the actual work task, and the contextual similarity of the learning conditions to those of the worksite. The facilitator must therefore be well acquainted with the realities of the individual's working environment.

Non-supportive peers and work environments, and the learner's perceptions of the training programme as being irrelevant, poorly designed, impractical, or too much effort are barriers to the transfer of learning.⁶⁴ Unless the potential for such hindrances is conceptualised from the outset, learners may be disadvantaged and blocked in their ability to use new skills.

To assist in transfer of the adolescent healthcare principles into the working environments of the clinicians, we devised several tasks for satisfactory completion of the course. The first was an audit of 5 to 10 consultations with adolescents using our adolescent assessment chart, which put them through the HEADSS protocol. The second was compiling a list of professionals working with youth in their district. The third was the offer of professional support for them when they returned to their work environments, should they have any problems putting the principles into practice.

Experiential Learning and Self-reflection

The professional development literature emphasises that learning how to use new concepts and ideas is a much more difficult cognitive task than understanding or reproducing them. It therefore requires as much or more time in professional education than presentation of theory.²⁴ Keeping theory to a minimum and following it with practical training ensures learning can occur and a change in practice is more likely. Participants can read additional theory in their own time. Steps in learning new skills have been described by Joyce:²⁴

1. Presentation of theory
2. Modelling it with discussion about implementation
3. Practice by participants in a simulated setting
4. Structured feedback on performance
5. Coaching for transfer of skills into the work environment.

In our programme, experiential learning was achieved through doctors role-playing consultations with adolescent actors. The actors provided structured feedback to the doctors and answered questions about preferred communication strategies. Clinicians in our programme rated this as the most powerful way not only to learn communication skills, but also to better understand and feel more connected to young people. In addition, we included a video of experts interviewing adolescents to provide modelling of interview techniques.

Other important skills practitioners learnt through role play in our programme were negotiating with the parent for time in the consultation to talk with the adolescent alone and discussion of confidentiality and its exceptions with adolescents.^{65,66}

The most often quoted theoretical model for experiential learning has been proposed by Schön.⁶⁷ It is based on many observations of other professionals learning but has been slightly modified by Fox⁶⁷ for the medical context. Clinicians engage in a cycle of problem-solving with each new clinical encounter, using their existing knowledge and skills to develop a response. The clinician then reflects on their actions and evaluates whether it has been effective or not. If effective, the response is added to the practitioner's "zone of mastery". A negative evaluation would necessitate the physician trying another approach and revolving around the cycle again. Without the opportunity for self-reflection on actions, evidence of the learning would not be obvious.

Another method is to enable clinicians to keep a journal on clinical encounters with adolescents. For 5 to 10 consecutive consultations with an adolescent, the physician was asked to perform a psychosocial health screen and later write into a journal, responses to a series of structured questions encouraging reflection on how they conducted the consultation, any part that presented barriers and why this may be so, and the things they would do differently or use again next time. In addition, they recorded the circumstances of the consultation, the presenting issue, and whether other issues were highlighted as a result of health risk screening.

Self-efficacy and Programme Design

Social learning theory holds that an individual's belief in his or her ability to carry out a task (self-efficacy) is a major determinant of the goals set and resolve to achieve them.⁶⁸

A learning environment that supports the development of self-efficacy empowers the learner, providing a sense of the programme's direction and resources to enable continued, self-directed, and independent learning. Learners participating in an education programme benefit from understanding what they are learning and why. Clear programme design with documented explicit statements of the programme's goals and objectives is helpful along with the specific learning outcomes of each session, and how each activity in the education programme relates to the overall achievement of the goals.

The positivist-constructivist view of learning also expresses the importance of the learner's experience in learning. Personally relevant meaning is created for the individual by relating new information to past experience.^{69,70}

Education programmes can facilitate this with case discussion in small groups. The public recognition of the skills, knowledge and experience the learner already has in the subject area may also engender a sense of self-efficacy.

Evaluation of Adolescent Training Programmes

Training programmes in adolescent medicine have had various degrees of evaluation. Evaluation reports generally concur that there are benefits to training including:

- sustained objectively assessed improvements in clinical knowledge, skills and attitudes;^{52,71}
- higher rates of desired clinical practices such as screening adolescents for health risk and discussing confidentiality;^{21,52,61,72,73}
- improved self-perceived competency in dealing with adolescents;^{19,74,75}
- greater number of adolescent patients seen;¹⁹ and
- greater tendency to engage in continuing education in adolescent health.¹⁹

Many earlier studies of the effect of education programmes in adolescent health care used self-report as a measure of improvement. This is a softer measure of learned skills, compared to direct observation, because participants often over-state what they actually do.⁷⁶ A challenge for evaluation studies is to demonstrate that education programmes in adolescent health care result in effective and sustained changes in the real work environment, including objective evidence of improved health outcomes in adolescent patients. Health outcomes are difficult to measure because they are influenced by other factors not modifiable by clinician education, such as patient beliefs and efficacy of treatments themselves.⁷⁷ This type of evaluation presents logistical and ethical challenges, but would provide the ultimate evidence of effectiveness.

Conclusion

This paper has covered some of the key content areas to include in an adolescent health education programme for clinicians along with the principles in designing an effective education programme, which demonstrably changes practice. The key imperative is that health practitioners receive professional development so that they can meet the pressing health needs of youth and engage in health promotion and preventive care.

As adolescent health and research into adolescent problems is a relatively young discipline,⁷⁸ these needs have only recently been highlighted and many existing professionals lack the prior training to deal with them effectively. Out of respect for professionals' time and finances, it is beholden on educators to take account of the evidence based on effective education programmes, and to maximise the opportunity that professional development will produce a change in practice. In addition to training existing health professionals, the introduction of adolescent health training in undergraduate years will ensure a skilled workforce into the future.

The differing backgrounds and experiences of learners and their learning needs and barriers need to be taken into account in programme design, along with the environment in which the learner works to effectively help them learn and change.

With effective education programmes, evaluators can move beyond proving their programme has provided a change in practice to investing resources into methods of measuring health outcomes of adolescents attending quality services.

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