ANTICIPATORY GUIDANCE PADA USIA EARLY ADOLESCENCE

Makalah ini dibuat untuk memenuhi penugasan mata kuliah keperawatan anak
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BAB I
PENDAHULUAN

A. Latar Belakang

Adolesen (remaja) merupakan masa transisi dari anak-anak menjadi dewasa. Masa ini terbagi menjadi tiga tahap, yaitu remaja awal (usia 11-14 tahun), remaja pertengahan (usia 15-17 tahun), dan remaja akhir (usia 18-21 tahun). Pada periode ini berbagai perubahan terjadi baik perubahan hormonal, fisik, psikologis maupun sosial. Perubahan ini terjadi dengan sangat cepat dan terkadang tanpa kita sadari. Perubahan fisik yang menonjol adalah perkembangan tanda-tanda seks sekunder, terjadinya pacu tumbuh, serta perubahan perilaku dan hubungan sosial dengan lingkungannya. Perubahan – perubahan tersebut dapat mengakibatkan kelainan maupun penyakit tertentu bila tidak diperhatikan dengan seksama. Maturasi seksual terjadi melalui tahapan-tahapan yang teratur yang akhirnya mengantarkan anak siap dengan fungsi fertilitasnya, laki-laki dewasa dengan spermatogenesis, sedangkan anak perempuan dengan ovulasi. Di samping itu, juga terjadi perubahan psikososial anak baik dalam tingkah laku, hubungan dengan lingkungan serta ketertarikan dengan lawan jenis. Perubahan-perubahan tersebut juga dapat menyebabkan hubungan antara orangtua dengan remaja menjadi sulit apabila orangtua tidak memahami proses yang terjadi. Perubahan perkembangan remaja ini yang dapat diatasi jika kita mempelajari proses perkembangan seorang anak menuju kehidupan dewasa yang sehat dan produktif (Garzon et al., 2023).

Riset kesehatan dasar (Riskesdas) tahun 2010 menunjukkan terdapat 4,3% anak perempuan usia 15 tahun belum haid. Data hasil Survey Demografi dan Kesehatan Indonesia (SDKI) tahun 2012 perilaku seks pra nikah pada remaja khususnya pada remaja laki-laki meningkat, pada tahun 2007 sebesar 3,5% meningkat menjadi 4,5% di tahun 2012. Data perilaku merokok dan mengkonsumsi alkohol dan menggunakan obat-obat terlarang menunjukkan angka yang sangat tinggi pada remaja laki-laki (80% pernah merokok dan 40% pernah mengkonsumsi alkohol. Berdasarkan laporan Penanggulangan Penyakit dan Penyehatan Lingkungan (P2PL) dari tahun 1987 sampai Maret 2013, kasus AIDS tertinggi terjadi pada kelompok umur sebesar 50/1.000 KH terjadi pada Ibu yang melahirkan di bawah umur 20 tahun.20-29 tahun (30,7%) yang artinya mereka mulai terinfeksi HIV pada usia remaja. Sedangkan menurut Susenas (2007) kejadian risiko tinggi maternal (ibu) dan perinatal (bayi baru lahir) yang langsung

Menurut (Aravind, 2023) Anticipatory Guidance adalah pendekatan proaktif yang digunakan dalam pendidikan dan perawatan kesehatan anak usia dini untuk mempersiapkan orang tua dan anak-anak menghadapi tahap dan tantangan perkembangan yang akan datang.

Oleh karena itu, remaja awal memerlukan anticipatory guidance untuk membantu mereka memahami dan beradaptasi dengan perubahan yang terjadi pada mereka secara fisik, kognitif, sosial, dan emosional. Menjelaskan kemampuan hidup penting seperti manajemen emosi, ketahanan, pemecahan masalah, dan pengambilan keputusan yang bertanggung jawab. Mengidentifikasi dan menghindari perilaku yang berpotensi berbahaya, seperti penggunaan narkoba dan alkohol, seks bebas, mengungkapkan, dan Kecanduan teknologi atau media sosial. Membangun hubungan yang positif dengan teman sebaya, keluarga, dan orang dewasa lainnya. mengembangkan pemahaman yang lebih baik tentang siapa mereka dan apa yang mereka pikirkan tentang diri mereka sendiri. Meningkatkan kesejahteraan emosional dan mental mereka.

maka dari pernyataan diatas, makalah ini dibuat supaya penulis dan pembaca dapat memahami dan mengetahui isu permasalahan pada early adolescene beserta anticipatory guidance dalam aspek fisik, kognitif, sosial dan emosional.

B. Tujuan

1. Tujuan Umum
    a. Mahasiswa dapat mengetahui dan memahami konsep anticipatory guidance early adolescence dan aspek pertumbuhan dan perkembangan.
2. Tujuan Khusus
    1. Mahasiswa dapat mengetahui dan memahami mengenai pengertian dari Anticipatory Guidance.
    2. Mahasiswa dapat mengetahui dan memahami Anticipatory Guidance dalam Aspek Fisik, Psikologis, Kognitif, Motorik, dan Sosial Emosional pada early adolescence.
    3. Mahasiswa dapat mengidentifikasi isu-isu penting yang dihadapi remaja pada usia dini dan bagaimana anticipatory guidance dapat membantu mengatasi masalah tersebut.
    4. Mahasiswa dapat menerapkan pengetahuan tentang anticipatory guidance dalam praktik keperawatan anak, khususnya dalam mendukung perkembangan remaja.
    5. Mahasiswa dapat merancang program edukasi yang efektif untuk orang tua dan remaja mengenai perubahan yang terjadi selama masa remaja awal.

BAB II

ANTICIPATORY GUIDANCE EARLY ADOLESCENCE

A. Pengertian Anticipatory Guidance

Menurut (Pratiwi et al, 2024) Anticipatory guidance adalah panduan yang berperan penting dalam membimbing pengasuhan anak, membekali orang tua dengan wawasan yang memungkinkan mereka mengatasi berbagai masalah dan tantangan dalam proses perkembangan anak, dengan tujuan agar anak dapat mengalami pertumbuhan dan perkembangan yang optimal.

Menurut (Mulyanti, 2015) Anticipatory Guidance dan petunjuk antisipasi adalah petunjuk yang perlu diketahui terlebih dahulu agar orang tua dapat mengarahkan dan membimbing anaknya secara bijaksana, sehingga anak dapat tumbuh dan berkembang secara normal.

B. Aspek Pertumbuhan dan perkembangan

Menurut (Garzon et al., 2023) masalah pertumbuhan dan perkembangan yang sering terjadi pada pada early adolescence (usia 10-13 tahun) yaitu sebagai berikut:

1. Aspek Fisik

   Masa remaja adalah periode penting untuk mengembangkan otonomi, tetapi banyak remaja yang belum siap menghadapi berbagai situasi yang mereka hadapi. Perilaku berisiko tetap menjadi salah satu faktor utama penyebab morbiditas dan mortalitas di kalangan remaja. Perilaku ini meliputi penggunaan narkoba, alkohol, dan nikotin, serta perilaku seksual dan fisik yang berpotensi membahayakan. Semua hal ini dapat mengakibatkan konsekuensi kesehatan jangka panjang yang serius. Oleh karena itu, banyak kunjungan remaja ke layanan kesehatan sebenarnya disebabkan oleh kondisi atau cedera yang sebenarnya dapat dicegah, terutama jika sebelumnya telah dilakukan penilaian terhadap perilaku berisiko tersebut.

Laju dan awal perubahan fisik remaja sangat berbeda. Beberapa remaja yang keluar dari awal masa remaja (sekitar usia 14 tahun), Remaja cepat berkembang dari segi tinggi, berat badan, dan perkembangan. Ketidaknyamanan fisik dan kebingungan tentang identitas diri dapat disebabkan oleh perubahan ini. Jika remaja percaya bahwa mereka tidak sesuai dengan standar penampilan mereka, mereka mungkin merasa stres atau tidak percaya diri. Remaja mengalami pertumbuhan fisik yang signifikan, termasuk perubahan hormonal yang dapat mempengaruhi kesehatan dan perkembangan tubuh mereka. Orang tua harus tahu bagaimana mendukung anak-anak mereka secara fisik.

2. Aspek Kognitif

Remaja sering melamun saat mereka belajar berpikir. Orang tua dan pendidik harus diingatkan bahwa melamun adalah aktivitas kognitif dan ruang yang dibutuhkan remaja. Ini adalah tempat di mana remaja bekerja dan melalui identitas mereka serta perubahan di sekitar dan di dalam diri mereka. Terlepas dari keluarga aslinya, remaja awal mulai membangun sistem nilai mereka sendiri. Mereka mungkin mencoba sistem nilai yang berbeda dari yang mereka pelajari dari keluarga mereka, yang sering membuat anggota keluarga bingung atau bahkan merasa terancam. Berikan remaja awal kesempatan untuk menggunakan keterampilan penalaran mereka yang sedang berkembang seiring dengan perkembangan mereka untuk secara aktif memecahkan masalah, mempelajari nilai, dan menguji dasar - dasar yang mereka gunakan untuk membuat keputusan. Tujuan ideal yang sering berubah ditetapkan oleh remaja awal. Mereka ingin menjadi seorang insinyur di satu titik, kemudian menjadi pilot atau orang tua yang tinggal di rumah untuk membesarkan anak-anak mereka. Beberapa remaja pada usia ini menunjukkan penurunan atau peningkatan dalam prestasi akademik, tergantung pada fokus mereka saat ini.

3. Aspek Sosial dan Emosional

Remaja awal mulai mempertimbangkan kembali hubungan mereka dengan orang tua mereka, orang dewasa lainnya, dan teman sebaya mereka. Mereka dapat terlihat anti-dewasa dan seringkali menemukan diri mereka di antara keduanya, merasa kesepian, meskipun mereka mungkin bukan anggota subkultur remaja. Mereka mulai mengutamakan teman daripada keluarga, dan sering melaporkan orang tua mereka sebagai orang yang mengarahkan . Karena menantang otoritas orang tua adalah salah satu cara menunjukkan kemandirian, pola perilaku sosial ini merupakan langkah menuju kedewasaan dan kemandirian. Orang tua mungkin mengatakan bahwa remaja muda lebih suka berdebat dan tidak patuh, menolak melakukan tugas, dan ingin merundingkan kembali aturan seperti jam malam, uang saku, dan tanggung jawab rumah tangga.

Selain itu para remaja sering mengalami perubahan suasana hati yang besar secara khas terjadi pada awal masa remaja. Perubahan emosional ini dapat berubah dari euforia menjadi kesedihan dalam hitungan menit, yang ditandai dengan sifat sementara , yang biasanya berlangsung beberapa jam atau hari. Perubahan suasana hati dan perilaku ini harus berbeda dari perubahan emosional yang tidak kunjung reda dan berlangsung lama pada gangguan depresi yang serius. Selain itu, mereka mungkin mulai menghabiskan lebih banyak waktu di depan cermin untuk merias wajah, menyisir rambut, dan memeriksa kulit mereka saat mereka menyesuaikan diri dengan perubahan fisik yang terjadi selama masa pubertas. Bagi sebagian besar remaja, termasuk mereka dengan keterlambatan perkembangan atau disabilitas, penampilan menjadi lebih penting. Kecemasan tentang menstruasi, emisi nokturnal, ereksi yang tidak terkendali, masturbasi, dan peningkatan ukuran payudara atau penis biasanya terkait dengan munculnya karakteristik seks sekunder. Remaja awal menginginkan privasi yang lebih besar, dan mereka sering menghabiskan lebih banyak waktu di kamar mereka sendiri untuk mendengarkan musik, menggunakan media sosial, berbicara di telepon, atau mengirim pesan teks. Akibatnya, diskusi ini dapat menjadi tantangan. Mereka mungkin memperbesar masalah mereka dan merasa bahwa tidak ada orang yang dapat memahami perasaan mereka.

Dalam hubungan pertemanan remaja semakin banyak peluang jenis persahabatan baru muncul. Jenis sesama biasanya terjadi antara satu atau lebih sahabat karib persahabatan. Saat remaja mengembangkan perasaan seksual dan mengembangkan identitas seksual mereka, persahabatan yang kuat ini dapat memicu eksperimen sesama jenis yang singkat. Kontak dengan jenis lawan biasanya dilakukan secara berkelompok, seperti dalam pesta dansa sekolah menengah di mana anak laki-laki berada di satu sisi tempat olahraga dan anak perempuan berada di sisi lain. Perilaku seksual umum lainnya yang ditunjukkan oleh remaja awal termasuk masturbasi, membuat lelucon "kotor", melontarkan komentar cabul kepada orang lain, menunjukkan minat dalam menonton adegan seksi yang jelas di media, atau melihat foto orang telanjang. Tergantung pada subkultur dan perkembangan remaja, eksperimen seksual dapat sangat berbeda. Misalnya, pada usia ini beberapa remaja telah melakukan hubungan seksual atau hamil, sedangkan yang lain bahkan belum pernah berpegangan tangan.

Penggunaan tembakau pada remaja juga menjadi fokus masalah pada usia ini. Penggunaan tembakau adalah salah satu penyebab kematian yang bisa dicegah, di mana banyak orang dewasa yang merokok melaporkan bahwa mereka mulai merokok sebelum mencapai usia 18 tahun. Banyak remaja yang mencoba menggunakan tembakau tetapi sering kali berhenti setelah beberapa waktu sebelum mengalami kecanduan nikotin. Tingkat ketergantungan terhadap tembakau ini dapat bervariasi antara individu, dan dapat muncul kapan saja setelah seseorang mulai menggunakannya. Oleh karena itu, pencegahan serta intervensi yang dilakukan secara dini sangatlah penting. Seperti yang telah dibahas sebelumnya, otak remaja sangat rentan terhadap pengaruh zat-zat seperti nikotin, yang menyebabkan remaja cenderung memiliki tingkat ketergantungan yang lebih tinggi dibandingkan dengan orang dewasa.

C. Aspek Pertumbuhan dan perkembangan

Anticipatory guidance dalam aspek pertumbuhan dan perkembangan seperti aspek fisik, aspek sosial emosional, dan aspek kognitif pada remaja awal adalah sebagai berikut :

1. **Aspek Fisik**

Menurut (Garzon et al., 2023) dan (Indriasari & Kusuma, 2024) Permasalahan dan Anticipatory Guidance pada aspek fisik yaitu sebagai berikut:

a. Mengalami pertumbuhan dan perkembangan yang cepat dalam transisi dari pra-remaja menuju kematangan seksual

   Anticipatory Guidance:

   - Ajarkan tentang fungsi tubuh yang muncul untuk kedua jenis kelamin (seperti menstruasi, keluarnya noktum, dan ereksi tak terduga).
   - Ajarkan tentang waktu dan deskripsi karakteristik seksual primer dan sekunder untuk kedua jenis kelamin (seperti kaki, perubahan pada payudara, alat kelamin, dan rambut).
   - Ajarkan tentang masturbasi yang aman dan orientasi/perasaan seksual.
   - Mengedukasi pengenalan tanda-tanda perubahan fisik saat memasuki masa pubertas seperti meningkatnya ukuran payudara, pembentukkan pinggul yang mulai tampak lebih lebar dari sebelumnya, pertumbuhan rambut disekitar alat kelamin dan ketiak, timbulnya jerawat, keluarnya cairan vagina, produksi keringat berlebih, dan kulit dan rambut berminyak akibat perubahan hormon.
   - Mengajarkan keterampilan pramentruasi seperti memilih pembalut yang sesuai dengan ukuran dan jenisnya, cara memasang dan menggunakan pembalut dengan benar agar tidak bocor dan

tetap bersih, rutin mengganti pembalut setiap 4-6 jam untuk menjaga kebersihan dan mencegah infeksi, cara membuang pembalut bekas pakai dengan cara yang higienis, seperti membungkusnya sebelum dibuang ke tempat sampah.

b. Mencapai parameter tinggi badan atau pertumbuhan
   Anticipatory Guidance:
   - Memberikan konseling mengenai keselamatan dan cedera yang tidak disengaja.
   - Ajarkan dan dorong penggunaan helm, sabuk pengaman, dan peralatan olahraga yang tepat dan konsisten.
   - Tekankan keselamatan dan tanggung jawab terkait akses penggunaan senjata api dan senjata lainnya.

c. Merasa nyaman dengan tubuh sendiri
   Anticipatory Guidance:
   - Beri mereka keyakinan bahwa perubahan fisik adalah hal yang normal seperti antisipasi apa yang harus mereka harapkan, dan dengarkan kekhawatiran mereka.
   - Mendorong pola makan dan tidur yang sehat dan berpartisipasi dalam olahraga dan kebugaran tubuh.

d. Melakukan perilaku berisiko

   Anticipatory Guidance:

   - Melaksanakan program untuk memberi tahu remaja tentang risiko kebiasaan tidak sehat seperti merokok, alkohol, dan penggunaan obat-obatan terlarang. Hal ini dapat dicapai melalui kampanye kesadaran, kelas kesehatan, dan partisipasi komunitas.

2. Aspek Kognitif

Menurut (Garzon et al., 2023) Permasalahan dan Anticipatory Guidance pada aspek kognitif yaitu sebagai berikut:

a. Beralih dari pemikiran konkret ke operasi formal dan kemampuan untuk bernalar secara abstrak

   Anticipatory Guidance:

   - Tekankan pentingnya menyelesaikan sekolah dengan sukses.
   - Berbicara tentang cara menyeimbangkan tanggung jawab akademis dengan hal-hal lain.
   - Menjelaskan bagaimana peningkatan kemampuan kognitif dapat menyebabkan "berpikir berlebihan" atau kebingungan dan mendorong remaja untuk berpikir lebih kritis.
   - libatkan remaja dalam diskusi, mendengarkan, dan menjawab pertanyaan

b. Mengembangkan sistem nilai pribadi dan integritas moral

   Anticipatory Guidance:

   - Dorong diskusi tentang apa yang menurut remaja penting dan berharga.
   - Bantu remaja mengembangkan keterampilan dalam resolusi dan pencegahan konflik.
   - Diskusikan bagaimana belajar mengidentifikasi perasaan adalah langkah pertama dalam memahami bagaimana perasaan mempengaruhi mental dan fisik.
   - Membahas rasa hormat terhadap hak, kebutuhan, dan pendapat orang lain.
   - Mengajarkan bahwa kedewasaan memerlukan pemahaman dan menghargai perbedaan multicultural.

c. Beralih dari ketergantungan pada orang lain ke ketergantungan pada diri sendiri untuk mengurangi risiko

   Anticiaptory Guidance:

   - Memberikan instruksi tentang cara mengelola tekanan teman sebaya untuk berperilaku berisiko.
   - Berbicara tentang cara mencegah cedera di rumah, tempat kerja, dan di sekolah, dengan menekankan bahaya senjata api.

3. Aspek Sosial dan Emosional

Menurut (Garzon et al., 2023) Permasalahan dan Anticipatory Guidance pada aspek sosial dan emosional yaitu sebagai berikut:

a. Membangun kemandirian dari orang tua

   Anticipatoy Guidance:

   - Menjelaskan kepada orang tua bahwa remaja memerlukan privasi dan bahwa tidak mengambil bagian dalam semua kegiatan keluarga bukanlah tanda penolakan dari keluarga; privasi harus diberikan dan diharapkan.

b. Mengembangkan rasa identitas diri

   Anticipatoy Guidance:

   - Dorong remaja untuk bertanggung jawab atas perawatan kesehatan mereka sendiri.
   - Dorong mereka untuk menghadapi tantangan baru dan berbicara tentang rencana masa depan. mereka, seperti sekolah, pekerjaan, dan keluarga
   - Membantu mereka menemukan kekuatan dan kegembiraan pribadi mereka sendiri.

c. Menciptakan hubungan baru dengan teman sebaya dan orang dewasa

   Anticipatoy Guidance:

   - Menjelaskan kepada orang tua bahwa remaja memerlukan privasi dan tidak mengambil bagian dalam semua kegiatan keluarga bukanlah tanda penolakan dari keluarga tetapi privasi harus diberikan.
   - Ajak remaja untuk bertanggung jawab atas perawatan kesehatan mereka sendiri.

- Ajak mereka menghadapi masalah baru dan berbicara tentang rencana masa depan mereka, seperti sekolah, pekerjaan, dan keluarga.
- Bantu remaja menemukan kekuatan dan kegembiraan mereka sendiri.
- Diskusikan pentingnya berpartisipasi dalam kegiatan dengan teman sebaya, menemukan cara sehat untuk bergabung dengan kelompok.
- Memberikan edukasi tentang:
    1. Menghindari keterlibatan dalam geng-penindasan, yang bisa berupa fisik, emosional, atau seksual.
    2. Menghindari penggunaan narkoba, rokok, dan alcohol.
    3. Menghentikan orang yang menggunakannya.
- Diskusikan gagasan mencakup peningkatan kemandirian dan lebih banyak tanggung jawab di rumah, sekolah, dan di komunitas.
- Dorong orang untuk berpartisipasi dalam kegiatan komunitas, kegiatan sosial yang positif sangat penting untuk mendorong remaja agar terlibat dalam aktivitas yang menyenangkan dan interaktif. Misalnya, olahraga, seni, atau kegiatan komunitas dapat menjadi pilihan yang tepat. Melalui aktivitas-aktivitas ini, remaja dapat menyalurkan emosi mereka dengan cara yang konstruktif sekaligus membangun koneksi sosial yang bermanfaat. Orang tua juga dapat memulai bimbingan antisipatif sejak dini. Ini mencakup pengetahuan tentang perilaku yang terkait

dengan pubertas serta metode yang efektif untuk mendukung anak (Marleni et al., 2021) dalam (Anggreni, D., Hety, D. S. Susanti, 2024).

- Memberikan informasi dan kesempatan untuk menyampaikan pertanyaan seksual mengenai identitas, tanggung jawab seksual, dan perlindungan dari kehamilan yang tidak diinginkan.
- Diskusikan tentang kencan, seperti hubungan yang sehat pada rasa saling menghormati dan membahas masalah.

d. Mencegah penggunaan tembakau

Anticipatory Guidance:

- Memberikan informasi kepada remaja tentang risiko kesehatan yang disebabkan oleh penggunaan tembakau dan bagaimana seseorang menjadi kecanduan nikotin, dengan penekanan pada pentingnya berhenti segera.
- Memberikan terapi farmakologis untuk menghentikan penggunaan tembakau, jika diperlukan.

BAB III
PENUTUP

A. Kesimpulan

Panduan antisipatif adalah pendekatan proaktif yang dirancang untuk mempersiapkan remaja dan orang tua dalam menghadapi berbagai perubahan yang muncul selama masa transisi dari anak-anak menuju dewasa. Pada tahap awal remaja, individu mengalami perubahan yang signifikan, baik dalam aspek fisik, kognitif, sosial, maupun emosional.

Makalah ini menekankan pentingnya anticipatory guidance dalam membantu remaja memahami dan beradaptasi dengan perubahan yang mereka alami. Dengan adanya bimbingan yang tepat, remaja dapat mengasah keterampilan hidup yang esensial, seperti mengelola emosi, mengambil keputusan yang bijaksana, serta menghindari perilaku berisiko.

Oleh karena itu, kolaborasi antara orang tua, pendidik, dan tenaga kesehatan sangat penting dalam memberikan anticipatory guidance yang efektif. Dengan dukungan yang memadai, diharapkan remaja dapat menjalani masa transisi ini dengan sehat, produktif, dan siap menghadapi tantangan yang akan datang.

B. Saran

1. Bagi Mahasiswa:
   a. Mahasiswa diharapkan dapat menerapkan pengetahuan tentang anticipatory guidance dalam praktik keperawatan anak, khususnya saat berinteraksi dengan remaja dan keluarga.

   b. Mahasiswa disarankan untuk ikut serta dalam program edukasi dan pelatihan kesehatan remaja untuk memperdalam pemahaman dan keterampilan yang diperlukan.
2. Bagi Orang Tua
   a. Sebagai Orang tua sebaiknya meningkatkan komunikasi dengan remaja, membahas perubahan secara terbuka dan mendukung mereka menghadapi tantangan.
   b. Orang tua diharapkan mengikuti program edukasi tentang anticipatory guidance agar lebih siap memberikan dukungan kepada anak-anak.
3. Bagi Anak (Remaja)
   a. Remaja diharapkan aktif mencari informasi tentang perubahan yang dialami dan berdiskusi dengan orang tua atau tenaga kesehatan mengenai masalah yang dihadapi.
   b. Remaja seharusnya mengasah keterampilan hidup yang sehat, seperti manajemen emosi dan pengambilan keputusan yang bijak, agar dapat menghadapi berbagai situasi dengan lebih baik.

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PEMBERDAYAAN PADA IBU TENTANG *ANTICIPATORY GUIDANCE* SEBAGAI UPAYA MENGOPTIMALKAN TUMBUH KEMBANG ANAK DI PONKESDES RANDUBANGU WILAYAH KERJA UPT MOJOSARI MOJOKERTO

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ABSTRAK

Pertumbuhan dan perkembangan anak ditentukan oleh bagaimana cara pengasuhan dan perawatan oleh orang tuanya. Agar mampu menghadapi setiap masalah dan tantangan yang mungkin dapat terjadi di setiap perkembangan anak, orang tua membutuhkan petunjuk penting yang dapat dijadikan sebagai pedoman dalam memberikan asuhan yang tepat yang disebut dengan *anticipatory guidance*. Kegiatan pemberdayaan ini bertujuan untuk memberikan pengalaman dan pengetahuan kepada ibu tentang upaya- upaya yang bisa dilakukan dan dipersiapkan ibu dalam mengahadapi masalah-masalah yang kemungkinan timbul pada setiap masa perkembangan anak, serta agar ibu juga mampu memberikan asuhan yang tepat pada setiap masa perkembangan anak. Kegiatan pengabdian masyarakat ini dilakukan di Ponkesdes Randubangu yang merupakan wilayah kerja Puskesmas Mojosari Mojokerto. Kegiatan dilakukan dengan memberikan penyuluhan, serta melakukan tanya jawab dan diskusi. Dari hasil evaluasi kegiatan, didapatkan bahwa pengetahuan dan pemahaman ibu mengenai *anticipatory guidance* meningkat. Harapan dari kegiatan ini adalah agar ibu lebih siap dalam menghadapi semua masalah-masalah dan tahapan-tahapan perkembangan anak sehingga tumbuh kembang anak bisa lebih dioptimalkan

Kata kunci: pemberdayaan, a*nticipatory guidance*, tumbuh kembang anak

ABSTRACT

The growth and development of children is determined by how they care for and care for their parents. In order to be able to face every problem and challenge that may occur in each child's development, parents need important guidance that can be used as a guide in providing appropriate care, which is called anticipatory guidance. This empowerment activity aims to provide experience and knowledge to mothers about the efforts that mothers can make and prepare to face problems that may arise at every stage of the child's development, and so that mothers are also able to provide appropriate care at every stage of the child's development. This community service activity was carried out at the Randubangu Ponkesdes which is the working area of the Mojosari Mojokerto Community Health Center. Activities are carried out by providing counseling, as well as conducting questions and answers and discussions. From the results of the activity evaluation, it was found that mothers' knowledge and understanding regarding anticipatory guidance increased. The hope of this activity is that mothers are better prepared to face all the problems and stages of children's development so that children's growth and development can be more optimal.

Key words: empowerment, anticipatory coaching, child growth and development

PENDAHULUAN

Pertumbuhan dan perkembangan anak ditentukan oleh bagaimana cara pengasuhan dan perawatan oleh orang tuanya. Gizi yang tidak baik serta derajat kesehatan anak yang rendah akan menghambat pertumbuhan otak dan pada gilirannya akan menurunkan kemampuan otak anak (Susanti et al., 2022). Anak yang sering sakit-sakitan dan kekurangan gizi akan mengalami perlambatan dalam pertumbuhan fisik dan motoriknya. Anak yang mengalami trauma disetiap tahap perkembangan mereka, seperti ketakutan yang tidak jelas juga bisa menimbulkan dampak negatif bagi perkembangan mereka. Dalam upaya untuk memberikan bimbingan dan arahan pada masalah-masalah yang kemungkinan timbul pada setiap fase pertumbuhan dan perkembangan anak, maka harus ada petunjuk-petunjuk yang perlu dipahami oleh orang tua. Petunjuk-petunjuk tersebut akan membantu orang tua untuk mengatasi masalah anak pada setiap fase pertumbuhan dan perkembangannya.

Anticipatory guidance merupakan petunjuk penting yang dapat dijadikan sebagai pedoman dalam memberikan asuhan pada anak agar orangtua mampu menghadapi setiap masalah dan tantangan yang mungkin dapat terjadi di setiap perkembangan anak, sehingga pada akhirnya anak dapat tumbuh dan berkembang secara optimal (Lestari et al., 2021).

Pemberdayaan pada ibu mengenai anticipatory guidance merupakan upaya peningkatan pengetahuan dan pemahanan ibu mengenai *anticipatory guidance* sehigga ibu atau orang tua sadar dan mau melaksanakan semua anjuran terkait *anticipatory guidance* (Budiani & Sriasih, 2015).

Lingkungan merupakan salah satu faktor yang mempengaruhi perkembangan dan pertumbuhan anak, terutama lingkungan keluarga. Keluarga terutama orang tua diharapkan mampu memberikan pendidikan dan perlindungan yang baik untuk anak. Keterlambatan pertumbuhan dan perkembangan pada anak bisa disebabkan karena orang tua yang kurang memperhatikan pertumbuhan anak dan tidak memberikan stimulasi yang tepat sesuai usianya (Zolten, 2006)

Kegiatan pemberdayaan ini bertujuan untuk memberikan pengalaman dan pengetahuan kepada ibu tentang upaya-upaya dan arahan-arahan yang bisa dilakukan dan dipersiapkan ibu terhadap masalah-masalah yang kemungkinan timbul pada setiap fase pertumbuhan dan perkembangan anak. Orang tua perlu mengetahui dan memahami *anticipatory guidance* sehingga orang tua bisa melakukan tindakan untuk memenuhi kebutuhan anak. Orang tua dapat membantu untuk mengatasi masalah anak pada setiap fase pertumbuhan dan perkembangannya dengan cara yang benar dan wajar. Saat semua kebutuhan anak terpenuhi maka anak akan tumbuh dengan optimal dan normal.

METODE

Kegiatan pemberdayaan ini dilakukan dengan memberikan penyuluhan, diskusi serta tanya jawab. Sasaran dari kegiatan ini adalah ibu-ibu yang memiliki bayi dan balita. Namun sebelum kegiatan inti dilakukan, terlebih dahulu dilakukan survey tempat kegiatan yang dilakukan dengan tujuan untuk mengetahui situasi dan kondisi di tempat kegiatan akan dilaksanakan. Setelah itu dilakukan penentuan sasaran kegiatan dan melakukan koordinasi dengan pihak terkait. Tahapan terakhir adalah pelaksanaan kegiatan. Kegiatan ini dilaksanakan di Ponkesdes Randubangu yang merupakan Wilayah Kerja Puskesmas Mojosari.

HASIL DAN PEMBAHASAN

Pada akhir kegiatan dilakukan evaluasi. Dari evaluasi kegiatan didapatkan hasil bahwa :

1. Kegiatan berjalan dengan lancar sesuai rencana yang telah ditetapkan
2. Evaluasi sebelum dan sesudah kegiatan, didapat bahwa pengetahuan ibu tentang *anticipatory guidance* menjadi bertambah.

Gambar 1
Pelaksanaan Kegiatan

Gambar 2
Pelaksanaan Kegiatan

Gambar 3
Pelaksanaan Kegiatan

Gambar 4
Pelaksanaan Kegiatan

Kampus Merdeka
PENGABDIAN MASYARAKAT
DI WILAYAH KERJA PUSKESMAS MOJOSARI
KABUPATEN MOJOKERTO
STIKES MAJAPAHIT MOJOKERTO

Gambar 5
Pelaksanaan Kegiatan

Anticipatory guidance merupakan petunjuk-petunjuk yang perlu diketahui terlebih dahulu agar orang tua dapat mengarahkan anaknya, sehingga anak dapat tumbuh dan berkembang secara normal dan optimal (Marleni et al., 2021) Pengoptimalan pertumbuhan dan perkembangan anak harus dilakukan semenjak dini hingga anak tumbuh remaja dan menjelang dewasa. Kebutuhan anak meliputi kebutuhan sandang, pangan, papan seperti: nutrisi, imunisasi, kebersihan tubuh dan lingkungan, pakaian, pelayanan/ pemeriksaan kesehatan dan pengobatan, olahraga, bermain dan beristirahat yang semuanya itu membutuhkan perhatian dan arahan dari orang tua (Anggreni et al., 2023).

Berdasarkan hasil penelitian yang dilakukan oleh Atik Pramesti didapat bahwa pemberian anticipatory guidance terhadap pertumbuhan dan perkembangan bayi usia 0-6 bulan. Bimbingan yang didapat orang tua mengenai nutrisi yang baik dan cukup, status kesehatan yang baik, pengasuhan yang benar, dan stimulasi yang tepat akan dapat membantu anak untuk tumbuh sehat dan mampu mencapai kemampuan optimalnya sehingga dapat berkontribusi lebih baik dalam masyarakat. Stimulasi yang tepat akan merangsang otak balita sehingga perkembangan kemampuan gerak, bicara dan bahasa, sosialisasi dan kemandirian pada balita berlangsung optimal sesuai dengan umur anak (Website et al., 2020)

Anticipatory guidance diberikan dengan harapan bahwa orang tua terlibat dalam mendukung perilaku kesehatan anak dan perkembangan awal anak. Orang tua dapat dengan mudah diajari metode meningkatkan disiplin dan pencegahan cedera pada anak (Combs-Orme et al., 2011).

Penelitian lain yang di lakukan oleh Siti Indatul Laili juga mendapatkan hasil bahwa pemahaman dan pengetahuan orang tua tentang *anticipatory guidance* berpengaruh terhadap tumbuh kembang anak. Pengetahuan dan pemahaman yang baik menjadikan orang tua mampu menjaga dan mengasuh anak dengan baik sehingga semua kebutuhan anak bisa terpenuhi sesuai dengan tahapan tumbuh kembang (Laili, 2023)

Peran keluarga terutama ibu sangat penting dalam pengasuhan anak. Pengetahuan yang dimiliki ibu mengenai *anticipatory guidance* diharapkan dapat meningkatkan dan mengoptimalkan tumbuh kembang anak sesuai dengan usianya.

KESIMPULAN

Kesimpulan dari hasil kegiatan pengabdian masyarakat ini adalah kegiatan pengabdian masyarakat berjalan dengan baik dan hasil evaluasi pada akhir kegiatan didapat bahwa terjadi peningkatan pengetahuan dan pemahaman ibu bayi dan balita tentang *anticipatory guidance*. Diharapkan dengan adanya kegiatan ini, agar ibu lebih siap dalam menghadapi semua masalah-masalah dan tahapan-tahapan perkembangan anak sehingga tumbuh kembang anak dapat berlangsung secara optimal, yang nantinya akan menciptakan generasi bangsa yang sehat menuju Indonesia emas 2024.

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Anticipatory Guidance through Online Motivational Interviewing for Mothers on Early Childhood Caries among Young Children of Age 9–24 Months amidst Pandemics: A Nonrandomized Clinical Trial

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ABSTRACT

Early childhood caries (ECC) is a multifactorial disease with known etiologic factors and can be very devastating to the oral and general well-being of a child, including psychological impact on a growing child. The irony is among the different factors responsible for milk that is wholesome nutrition, if fed in a wrong pattern, can be the main factor that helps this type of rampant caries spread within no time, leading to pulp exposures and complicating proceedings. Awareness is the mainstay in prevention, and creating it becomes our sole responsibility as a pediatric dentists. A multidisciplinary approach with the involvement of mothers as a main stakeholder in this front becomes a very promising move, so this project is phase two of interprofessional collaboration involving mothers in prevention; the aim of the study is to create awareness among mothers during COVID lockdown so as to prevent ECC in this COVID pandemic.

Materials and methods: A total of 222 mothers with 9–24 months old children were selected and added to the e-groups. The allocated mothers were given a pretest questionnaire and collected back with a photo of their child's oral health, and anticipatory guidance and in-depth interviewing were given to them. Follow-up is done in 2, 4, and 6 months. Awareness is evaluated by pre- and posttest questionnaires. Reversal of the white spot is evaluated through indices, and progression is noted.

Statistical analysis: The data was analyzed using Statistical Package for the Social Sciences 13.

Result: Pretest and postquestionnaire analysis were done using the Chi-squared test. The test shows the marked raise in knowledge, attitude, and practice of mothers on their children after postintervention, which was given through motivational interviewing (MI).

Conclusion: In summary, the MI intervention appeared to improve maternal knowledge but had no effect on oral health behaviors or on the progression of early childhood caries (ECC).

Keywords: Anticipatory guidance, Early childhood caries, Motivational interviewing, White spot lesions.

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INTRODUCTION

Early childhood caries (ECC) is known to be a childhood disease with multiple etiology whose manifestation affects the primary teeth during its eruption. The American Academy of Pediatric Dentistry (AAPD) defines ECC as the presence of one or more decayed (non-cavitated or cavitated), missing (as a result of caries), or filled tooth surfaces in any primary tooth in a child 71 months of age or younger. A marker of severe ECC, which is defined as in the AAPD, is any sign of tooth decay on a smooth surface in children under the age of three years. According to Hakan et al, there is a high frequency of ECC in children aged 2–3 years with 46% indicating high frequency at this age. The loss of primary teeth at earlier ages will create problems not only functional problems like mastication, speech, and space management but also psychological problems also. In order to stop the spread of the disease and enhances the strength, appearance and functionality of teeth, modern dentistry and our study aims to control initial lesion noninvasively using remineralizing agents.[1–5]

The coronavirus disease 2019 pandemic has wreaked tremendous damage on the echelons of society and had a negative effect on medical professionals, especially the dentist and restricting overall skills. It's challenging for dental staff to offer even the most basic services to the needy due to the contagious virus spread through aerosol by which most of the dental equipment works and even while taking an intraoral radiograph.[6] The virus can persist on all the structures for a long period minimum of 3–12 hours, depending on the substance like metal or plastic, etc., that is frequently found in dental offices, making it crucial to abide by the warning and guidelines provided by many organizations like Indian Council of Medical Research and World Health Organization in order to stop the spread of the disease.

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In order to convey this knowledge, the AAPD created anticipatory counselling to know the various developmental milestone of a child of various ages. Consequently, the prenatal period is the ideal time to start counselling mothers and caregivers with a multidisciplinary approach. The preventive counsel will be particularly appreciated by expected parents, especially those who are expecting their first child. Additionally, it's critical for mothers to have enough knowledge of their dental health conditions. As a result, the counseling places a strong emphasis on the value of maternal dental health and the risk of passing cariogenic micro-organisms into their offspring.[7,8]

A two-way collaborative conversation called MI can help people become more motivated and committed to change. Paying close attention to the language of change is a person-centered therapy approach for dealing with the widespread issue of ambivalence regarding the change. It is intended to increase a person's motivation for and progress towards a particular goal by eliciting and analyzing that person's personal motivations for change in a supportive and compensative environment.

A promising method for reducing ECC deterioration is the employment of the MI approach, which is supported by the stages of change theory. Combining MI with other interventions may increase effectiveness, and the combined use of anticipatory guidance with MI may have additional benefits.

Therefore, the study's objective is to determine whether anticipatory guidance through MI is useful in evaluating the awareness to prevent ECC.

MATERIALS AND METHODS

Ethical Review

The ethical committee have approved this study (Ref no: IECKVGDCH/SS13/2020-21). All participants are provided with a consent form.

Study Design

This study manuscript is followed and reported by the trends criteria for a nonrandomized clinical trial. This is a pretest and posttest nonrandomized clinical trial. Sample methodology is through contacts, and their contacts are added to the online groups. So the study is followed by snowball sampling. As it is a duration-based study, *n* (number of participants) may vary from 50 to 200, but those who are willing and satisfies the inclusion and exclusion criteria are selected for the study.[9] Inclusion criteria include the mothers whose children are aged between 9 and 24 months, Dyad willing to participate, Dyad with parental consent and children with erupted upper incisors teeth. Participants excluded in this study have major systemic diseases, such as hemophilia, rheumatic heart disease and Kawasaki disease or any disorder in renal such as acute cystic disease and are on long-term medication and with mucosal lesions and children exposed to fluoride environment.

These participants were educated about oral health awareness, and a consent form with a structured questionnaire was given by the investigator. An oral health evaluation is done using the lift-the-lip procedure that is used on infants and young children by parents or caregivers. Instructions will be given to the parents beforehand through handouts on how to do the lift-the-lip procedure. To find the extremely early indicators of tooth decay, it is necessary to visually examine the upper front tooth in search of the initial lesion, that is, white spot lesions. It is simple to do and does not call for a dental specialist. The goal of lift-the-lip is to encourage parental and guardian participation in clinical dental services while also educating them about oral health. Additionally, parents are urged to frequently examine their children's teeth at home. The application of lift-the-lip emphasizes the necessity of appropriate training and close collaboration between dental services and child health specialists. Using this technique, the children will be assessed using a mobile camera having a minimum 2 MP resolution and good illumination. Mothers are trained to take standardized photographs. Also, the lesion will be categorized using the online image obtained using the caries risk assessment tool (Fig. 1).

The self-structured questionnaire will collect vital demographic information, and the status of children's oral health will be obtained from mothers. The self-structured validated questionnaire will be used to see the impact of the awareness. This questionnaire will be given to the participants at the baseline and at 6 months. (https://docs.google.com/forms/d/e/1FAIpQLSeKh26lBaSlFrz7cGRzJQw6O7_skSMPAYWW-zaao24tZ633DA/viewform?usp=sf_link). The questionnaire consists of a set of 32 questions which is a closed-end type and is measured in a 5-scale Likert scale.

Using statistical power analysis G*Power three software and considering the goodness of fit test analysis, the current study's sample size was calculated as 197 by maintaining α error as 0.05 at 95% confidence interval, β error as 0.2, power of the test (1-β error) as 80%, effect size (Cohen's w) as 0.20 (Manchanda et al.) and degrees of freedom as one. To account for unexpected diversions from statistical presumptions, the final sample was margined to 200, that is, evaluation on a single group of dyads (mother/any one parent and child), a pre- and post-MI within the same group.

The pilot study was done among 30 parents to check the validity and reliability of the study. Here the questionnaire is sent to 30 participants, and how much they are able to understand or read the questionnaire. While validating Flesch Kincaid's readability score: 50.8, Flesch Kincaid's grade level—9.8 and Aiken's v index for each item ranged from 0.75 to 1 (high to very high). And separately, face validity is analyzed. The reliability of the study is done using the Cronbach test reveals a score of 0.83 which show the study is acceptable.

Awareness will be given by anticipatory guidance/MI, and then at the time of follow-up, oral screening and evaluation are done to check out the reversal of white spot lesions. End the 6 months, the final posttest questionnaire is circulated, and final oral screening is done and evaluated for any progression. The effect of the MI is assessed by MI treatment integrity (MITI) 3.1.1(Fig. 2). Then, the data will be collected, assessed and compiled for results.

RESULTS

To assess the knowledge and attitude of the mothers to ECC, scoring was given as poor and good (Table 1). At baseline, there was a significant difference between the pretest and posttest. The knowledge among mothers in ECC was about 17.1% and gradually increased postinterviewing by around 90.3% by the end of 6 months (Fig. 3). The attitude has slightly significant as it almost gives similar sampling variability and doesn't affect the child's behavior. While in the practices, 90% of mothers accepted to notice any changes seen in the child's mouth often; at the end of postinterviewing, 98% of mothers suggested the lift the lip procedure once a week with their first dental visit to the dentist by early as a tooth erupts and 86% suggested for nutritional and preventive health, 14% suggested for brushing and flossing as most effective in the prevention of ECC.

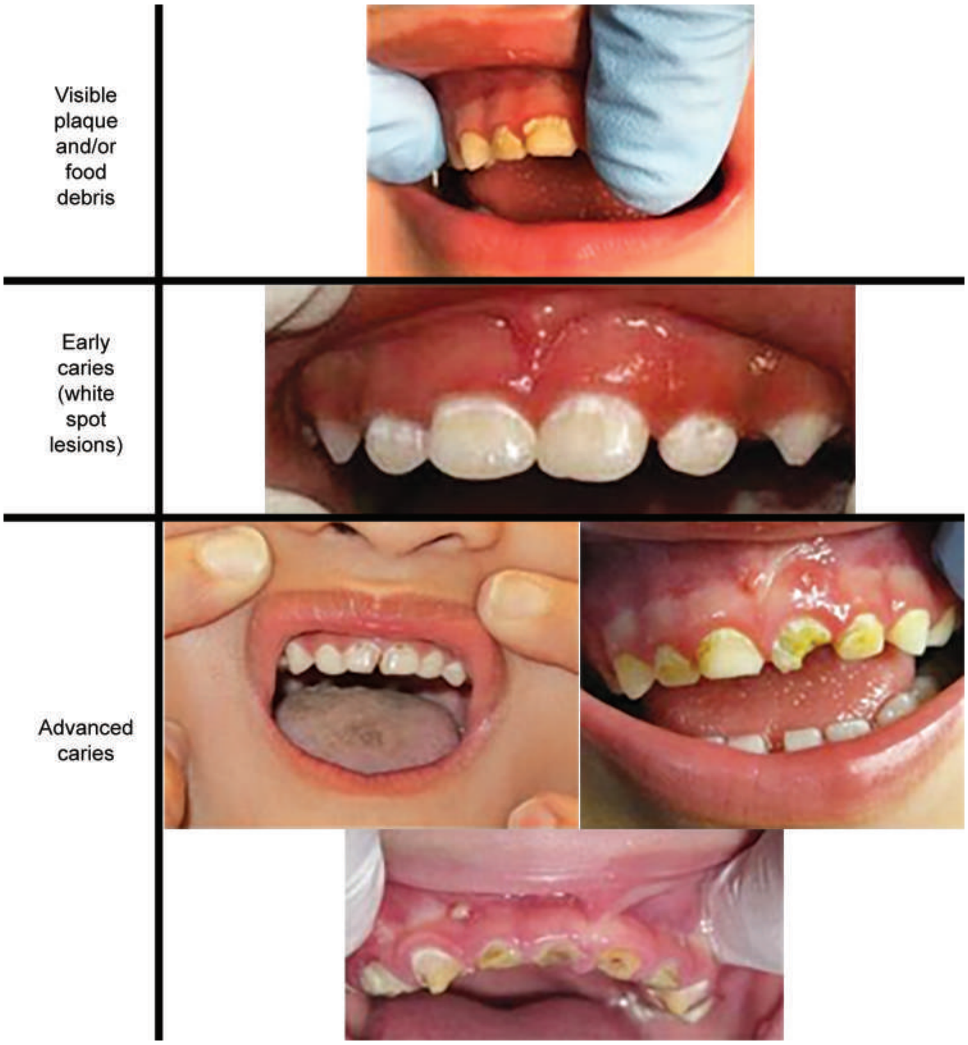

Visible plaque and/or food debris
Early caries (white spot lesions)
Advanced caries

Fig. 1: Canadian caries risk assessment tool for <6 years

Motivational interviewing (MI) was done among the mothers using the MI treatment index 3.1.1, as stated in Figure 2. And at the end of the 6 months, the *p*-value significance is found by 1–5 values in the Likert scale.

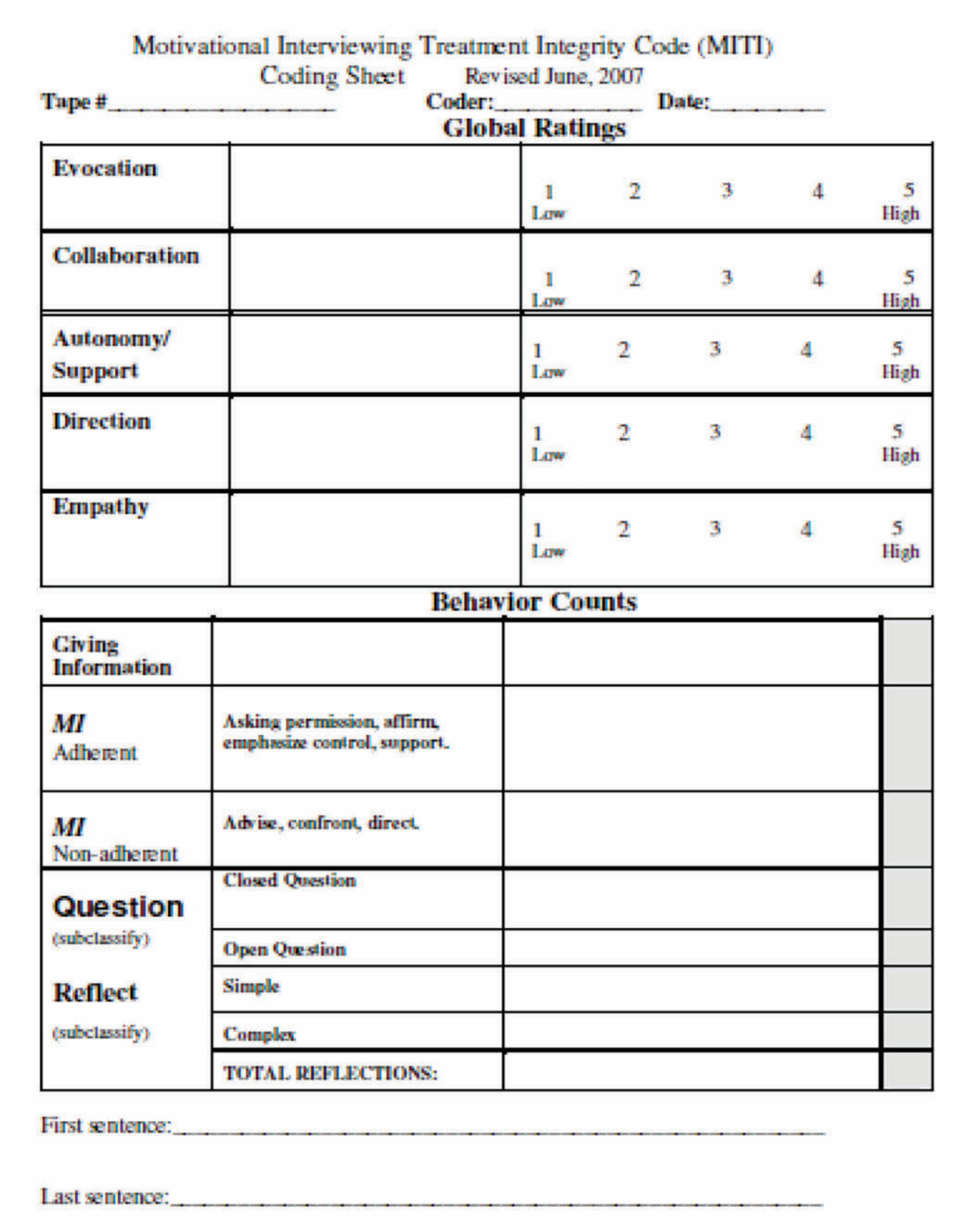
These results show mothers to attain knowledge on ECC and how to promote the awareness acquired during in-depth interviewing. Tables 2 to 5 show the results for the MI index (Figs 4 to 6).

Reversal of white spot lesion seen after the oral health promotion through MI.

Discussion

The MI demonstrated a significant difference in the awareness among mothers of children aged 9 months–2 years. Mean awareness after promoting oral health through anticipatory guidance is around 87%. The retention rate for the study was high, at >80% for every planned encounter. All participants completed the MI visits. Participating mothers completed an average of 98.3% of planned MI visits, and the topics related to taking care of their children's teeth were covered by 85–97% of the mothers. The results for participant satisfaction and engagement were very high. Due to the high participation rates, it was decided not to perform any protocol analysis because the outcomes would have essentially been the same as those from our modified intention-to-treat analysis. The purpose of MI is to encourage people to make changes in an effort to reduce the harmful effects of the targeted behavior. MI was utilized with mothers of the targeted children in this study, and others employed MI interventions to reduce ECC to support them in implementing behavioral changes that would improve the oral health of those children. When compared to using MI directly to change an individual's behavior, the modified purpose of treating oral health and this use of MI with mothers rather than the children of themselves represent a ″one person removed″ approach that could erode the effectiveness of the intervention. MI was found to be more effective than other health education tactics in eliciting positive changes in teenager's oral health habits and preventing dental caries in a recent study who received MI to improve their own behavior (Wu et al.).[10–20]

Other areas of the health sector, such as substance misuse and quitting smoking, have shown greater success with MI (Brooks et al.). We hypothesize that factors including perceived problem severity, obstacles and repercussions may be played in these reactions. A participation reaction to a behavior modification



Motivational Interviewing Treatment Integrity Code (MITI)
Coding Sheet Revised June, 2007

Tape #________________ **Coder:**__________ **Date:**________

Global Ratings

Evocation		1 Low 2 3 4 5 High
Collaboration		1 Low 2 3 4 5 High
Autonomy/ Support		1 Low 2 3 4 5 High
Direction		1 Low 2 3 4 5 High
Empathy		1 Low 2 3 4 5 High

Behavior Counts

Giving Information			
MI Adherent	**Asking permission, affirm, emphasize control, support.**		
MI Non-adherent	**Advise, confront, direct.**		
Question (subclassify)	**Closed Question**		
	Open Question		
Reflect (subclassify)	**Simple**		
	Complex		
	TOTAL REFLECTIONS:		

First sentence:______________________________________

Last sentence:______________________________________

Fig. 2: Motivational interviewing (MI) treatment index 3.1.1

Table 1: Knowledge among parents regarding ECC and its prevention pre- and postintervention

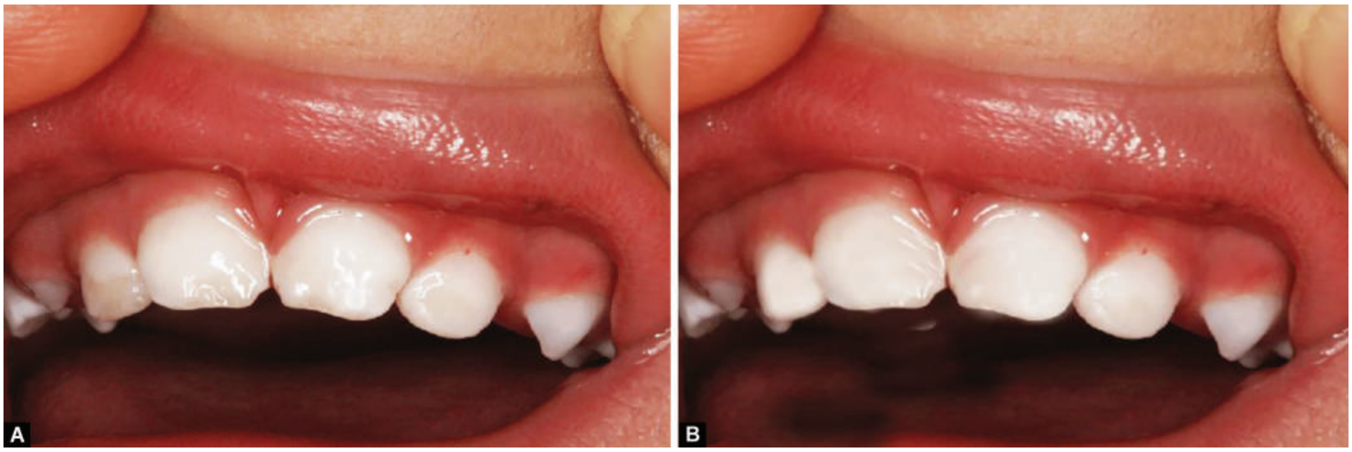
Sl. no.	*Questions*	*Answers*	*Pretest (n = 222) n (%)*	*Posttest (n = 222) n (%)*	*Chi-square value*	*p-value*
1	Do you know about ECC in young children?	Yes	119 (53.6)	222 (100)	–†	–†
		No	95 (42.8)	0		
		Don't know	8 (3.6)	0		
2	Do you know that ECC affects milk teeth in young children?	Yes	81 (36.5)	202 (91)	2.742	0.254
		No	127 (57.2)	20 (9)		
		Don't know	14 (6.3)	0		
3	Do you know that ECC are also called baby bottle syndrome?	Yes	27 (12.2)	91 (41)	11.528	0.003*
		No	128 (57.7)	131 (59)		
		Don't know	67 (30.2)	0		
4	Do you know the importance of the first dental visit in young children?	Yes	62 (27.9)	202 (91)	3.511	0.173
		No	115 (51.8)	20 (9)		
		Don't know	45 (20.3)	0		
5	Do you know preventive dental programs for ECC?	Yes	46 (20.7)	182 (82)	6.772	0.148
		No	122 (55)	10 (4.5)		
		Don't know	54 (24.3)	30 (13.5)		
6	Do you know that cleaning of gums and newly erupted teeth are necessary for young children?	Yes	43 (19.4)	182 (82)	4.768	0.092
		No	126 (56.8)	40 (18)		
		Don't know	53 (23.9)	0		
7	Are you aware that ECC affect the psychological welfare of a child?	Yes	38 (17.1)	152 (68.5)	15.859	0.003*
		No	127 (57.2)	50 (22.5)		
		Don't know	57 (25.7)	20 (9)		
8	What do you think is the main reason for ECC in a child is prolonged feeding at night containing sugar?	Yes	43 (19.4)	192 (86.5)	3.247	0.517
		No	110 (49.5)	20 (9)		
		Don't know	69 (31.1)	10 (4.5)		
9	Do you know that putting your child in a bottle to sleep causes ECC because of the stagnation of milk?	Yes	41 (18.5)	192 (86.5)	7.573	0.109
		No	101 (45.5)	10 (4.5)		
		Don't know	80 (36)	20 (9)		
10	Are you aware that teeth in children put to sleep with sweetened pacifiers predispose to ECC due to high sugar content?	Yes	39 (17.6)	192 (86.5)	1.372	0.504
		No	12255	0		
		Don't know	61 (27.5)	30 (13.5)		
11	Are you aware that ECC affect the overall development of the child?	Yes	38 (17.1)	150 (67.6)	8.202	0.084
		No	107 (48.2)	52 (23.4)		
		Don't know	77 (34.7)	20 (9)		
12	Are you aware that ECC spread from mother to child?	Yes	35 (15.8)	182 (82)	7.060	0.133
		No	112 (50.5)	30 (13.5)		
		Don't know	75 (33.8)	10 (4.5)		
13	Are you aware that prolonged nighttime bottle feeding predisposes to ECC?	Yes	39 (17.6)	192 (86.5)	4.879	0.087
		No	59 (26.6)	0		
		Don't know	124 (55.9)	30 (13.5)		
14	Are you aware that preterm low-birth-weight babies and vitamin deficiencies predispose to ECC?	Yes	34 (15.3)	182 (15.3)	3.054	0.217
		No	137 (61.7)	40 (18)		
		Don't know	5123	0		
15	Are you aware that sweetened medications predispose to ECC?	Yes	36 (16.2)	182 (82)	15.358	0.004*
		No	11150	20 (9)		
		Don't know	75 (33.8)	20 (9)		
16	Are you aware that white spot lesions are early signs of decay which, if not prevented, will result in severe ECC?	Yes	37 (16.7)	171 (77)	10.143	0.038*
		No	115 (51.8)	20 (9)		
		Don't know	70 (31.5)	31 (14)		

Contd…

Contd…

Sl no	*Questions*	*Answers*	*Pretest (n = 222)* *n (%)*	*Posttest (n = 222)* *n (%)*	*Chi-square value*	*p-value*
17	Do you really think it is inevitable to get early treatment for children suffering from ECC?	Yes	35 (15.8)	150 (67.6)	18.268	0.001*
		No	102 (45.9)	52 (23.4)		
		Don't know	85 (38.3)	20 (9)		

*Statistically significant ($p \leq 0.05$); †, no statistics are computed because posttest Q1 is a constant



Figs 3A and B: (A) Initial lesion image; (B) Reversal of lesion

intervention like MI may also be influenced by psychosocial factors, including stress, sense of coherence, oral health locus of control, and fatalistic beliefs (Batliner et al.).[21] These elements might provide plausible explanations for why MI interventions are effective for one population or condition but unsuccessful for another. It is not possible to fully analyze the effectiveness of MI in these other domains of this article, but a new study by Mc Neil et al. offers a view as being more organized than what the approach's creators intended (Miller and Rollnick).[17]

In fact, a MI script was offered to provide direction in carrying out the intervention because it was necessary to standardize the intervention as much as possible in the setting of a clinical trial. Interventionists were much encouraged to adjust the script as necessary to fulfil participant requirements and directives in accordance with the spirit of MI.

The MI intervention, which depends on the formation of a supportive connection between the interventionist and participant, may have been less effective as a result of the endeavor to standardize human relationships. Even though these behavioral pathways are essential for lowering ECC, they are only a small component of the wider schema that links upstream factors to these more nearby factors. The risk of ECC is considerably increased by factors like low socioeconomic level, parental employment, education, and neighborhood and community characteristics (De Fonseca). Children from low-income families also have poor compliance with preventive advice (De Fonseca and Avenetti). According to this idea, "individuals and groups with moderate intervention needs may gain more from it than those with significant needs" (Watt).

Petti et al. in 2010 explained how the social determinants of health, parental psychological stress, and fatalism could affect the linkage indicated in the idea of inverse case law when examining factors linked with ECC in high-risk children. When other basic requirements are not consistently satisfied, even the best intentions for good oral health behaviors may be neglected. When future initiatives provide programs and treatments that take into account the larger life context and conditions of people within these communities, they may be more successful at addressing the complete spectrum of family needs. (Batliner et al.).[21]

Parallel to this investigation, a similar MI experiment with residents in Boston utilizing the same outcome measures and the same MI intervention with similar results revealed no beneficial benefits for the intervention. The two experiments varied in the employment of a control group, the age of the children, the setting of the trails, and the location. Although both the Boston trial and this one had sizable sample sizes and were carefully planned and carried out, neither study was effective for the high-risk individuals enrolled. The study's strengths were sizable sample sizes, strong protocol adherence, and an attendance rate of 80% or above at all scheduled encounters. The intervention's fidelity was carefully tracked and successfully managed. Meaningful community involvement persisted throughout the whole research. Community people participated in the formulation of retention strategies, and all the study messages were created collaboratively by study staff and community participants. In addition, the trial was monitored by a Data and Safety Monitoring Board that comprised an external body of reviewers.

MI emphasized listening, learning and guiding instead of directing, which was consistent with the mother and caregivers. According to the study by Tomlin et al. in 2014, the MI technique respects the individual and the tribe's sovereignty and right to self-determination; they encourage clients to consider their ambivalence towards behavior change, consider different options for behavior change, and then work with them to set goals and create action plans in consultation with the interventions. According to Batliner et al., the interventions followed the handbook as a guide, taking care to ensure that MI always guided choices and that approach wasn't unduly regimented in a way that would limit answers and results.

Table 2: Attitude among parents regarding ECC and its prevention pre- and postintervention

Sl no	*Questions*	*Answers*	*Pretest (n = 222) n (%)*	*Posttest (n = 222) n (%)*	*Chi-square value*	*p-value*
18	I think the examination of a child's oral cavity is necessary?	Strongly Disagree	0	0	2.325	0.508
		Disagree	8 (3.6)	0		
		Undecided	9 (4.1)	0		
		Agree	175 (78.8)	112 (50.5)		
		Strongly Agree	30 (13.5)	110 (49.5)		
19	I think that early detection of ECC will increase the chance of long-term survival of the tooth?	Strongly Disagree	1 (0.5)	0	6.277	0.616
		Disagree	13 (5.9)	20 (9)		
		Undecided	52 (23.4)	0		
		Agree	125 (56.3)	52 (23.4)		
		Strongly Agree	3114	150 (67.6)		
20	Do you think that awareness programs will motivate you to improve your child's oral health?	Strongly Disagree	1 (0.5)	0	11.926	0.155
		Disagree	15 (6.8)	0		
		Undecided	46 (20.7)	20 (9)		
		Agree	133 (59.9)	91 (41)		
		Strongly Agree	27 (12.2)	111 (50)		
21	Did attending an awareness program help you to improve the feeding practices of children with ECC?	Strongly Disagree	0	0	7.719	0.259
		Disagree	15 (6.8)	0		
		Undecided	43 (19.4)	20 (9)		
		Agree	139 (62.6)	62 (27.9)		
		Strongly Agree	25 (11.3)	140 (63.1)		
22	Will correcting the feeding practices improve the child's oral health?	Strongly Disagree	1 (0.5)	0	15.643	0.048*
		Disagree	8 (3.6)	0		
		Undecided	49 (22.1)	20 (9)		
		Agree	137 (61.7)	80 (36)		
		Strongly Agree	27 (12.2)	122 (55)		
23	The interprofessional, multidisciplinary approach will improve the oral health status of children with ECC?	Strongly Disagree	2 (0.9)	0	6.885	0.549
		Disagree	115	0		
		Undecided	42 (18.9)	20 (9)		
		Agree	139 (62.6)	54 (24.3)		
		Strongly Agree	28 (12.6)	148 (66.7)		
24	Will intermittent snack intake lead to ECC in children?	Strongly Disagree	1 (0.5)	0	7.998	0.092
		Disagree	13 (5.9)	0		
		Undecided	5123	0		
		Agree	134 (60.4)	111 (50)		
		Strongly Agree	23 (10.4)	111 (50)		
25	Will management of children affected with ECC improve the overall well-being of the child?	Strongly Disagree	0	0	4.719	0.858
		Disagree	16 (7.2)	20 (9)		
		Undecided	42 (18.9)	20 (9)		
		Agree	140 (63.1)	37 (16.7)		
		Strongly Agree	24 (10.8)	145 (65.3)		
26	Will the awareness of expecting mothers about ECC improve their child's well-being?	Strongly Disagree	2 (0.9)	0	16.517	0.036*
		Disagree	12 (5.4)	0		
		Undecided	46 (20.7)	30 (13.5)		
		Agree	143 (64.4)	111 (50)		
		Strongly Agree	19 (8.6)	81 (36.5)		
27	Do you think that regular visit to a pediatric dentist is necessary for the prevention of ECC?	Strongly Disagree	0	0	8.253	0.220
		Disagree	8 (3.6)	0		
		Undecided	45 (20.3)	20 (9)		
		Agree	142 (64)	61 (27.5)		
		Strongly Agree	27 (12.2)	141 (63.5)		

*Statistically significant ($p \leq 0.05$)

Table 3: Practices among parents regarding ECC and its prevention pre- and postintervention

Sl. no.	*Questions*	*Answers*	*Pretest (n = 222)* *n (%)*	*Posttest (n = 222)* *n (%)*	*Chi-square value*	*p-value*
28	Have you ever noticed any changes in your child's teeth?	Yes	22 (9.9)	222 (100)	–†	–†
		No	200 (90.1)	0		
29	How often do you emphasize dental examination of children by lifting the lips?	Once a week	126 (56.8)	222 (100)	–†	–†
		Once a month	69 (31.1)	0		
		Once in 6 months	209	0		
		Once a year	3 (1.4)	0		
		If any problem arises	4 (1.8)	0		
30	At what age did you start the oral examination of children with ECC?	6 months	166 (74.8)	202 (91)	6.170	0.187
		1 year	38 (17.1)	20 (9)		
		2–3 years	12 (5.4)	0		
		>3 years	3 (1.4)	0		
		Don't know	3 (1.4)	0		
31	How often do you emphasize improving feeding practices in children with ECC?	Once	110 (49.5)	202 (91)	6.288	0.179
		Twice	94 (42.3)	0		
		Biweekly	10 (4.5)	20 (9)		
		Monthly	7 (3.2)	0		
		Don't know	1 (0.5)	0		
32	In your opinion, which oral health regime is most effective in the prevention of ECC?	Nutritional and preventive oral health	3114	191 (86)	1.081	0.782
		Brushing and flossing	174 (78.4)	31(14)		
		Fluoride supplementations	12 (5.4)	0		
		Wiping the oral cavity of a child with moist cotton and use xylitol wipes	5 (2.3)	0		

*Statistically significant (*p* ≤ 0.05); †, no statistics are computed because posttest Q28 and Q29 is a constant

Table 4: Overall knowledge and attitude among parents regarding ECC and its prevention pre- and postintervention

	Score category	*Pretest (n = 222)* *n (%)*	*Posttest (n = 222)* *n (%)*
Knowledge	0–8 (poor)	184 (82.8)	20 (9.1)
	9–17 (good)	38 (17.1)	202 (90.9)
Attitude	0–30 (poor)	27 (12.6)	20 (9.1)
	31–50 (good)	195 (87.8)	202 (90.9)

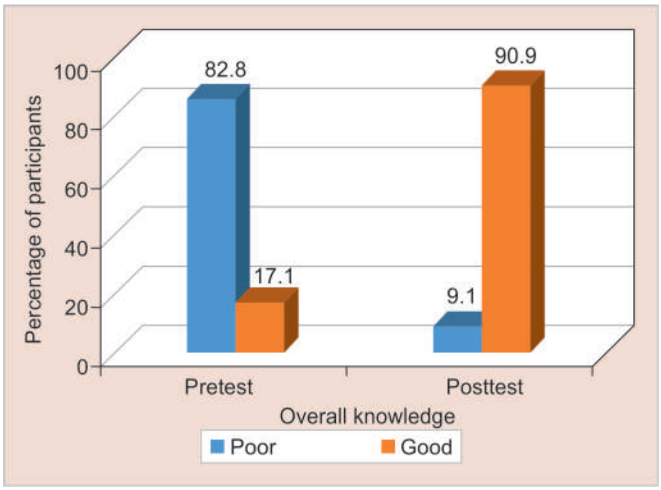


Fig. 4: Overall knowledge of study participants pre- and postintervention

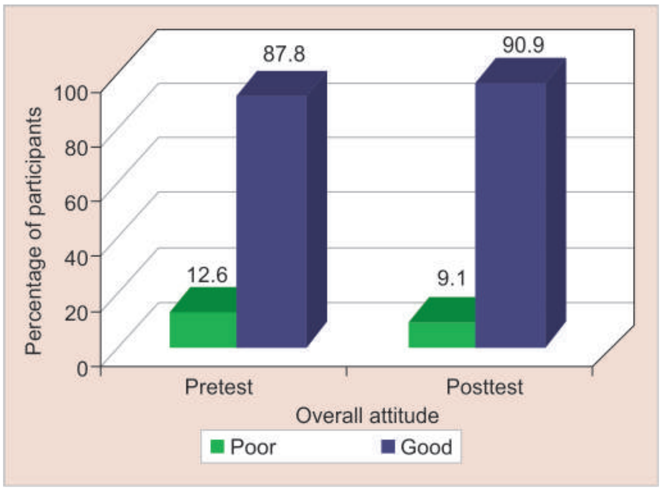


Fig. 5: Overall attitude of study participants pre- and postintervention

Table 5: *p*-value significance through MI done using MITI treatment index 3.1.1

Sl. no.	*MITI questions*	*Chi-squared test*	*p-value*
1	What type of feeding practices?	5.642	0.621
2	What type of toothpaste is used for the child's teeth for brushing?	6.442	0.043*
3	Have you ever lifted your child's upper lip and noticed any changes?	6.145	0.018*
4	Are you aware that long-time feeding may cause/lead to ECC?	5.984	0.015*
5	Are you aware that the use of fluoridated toothpaste may prevent ECC?	6.147	0.011*
6	Noticing the discolored changes in your child's teeth may be a chance for caries?	7.543	0.812
7	Is giving formula milk/sweetened milk cause ECC? Right/wrong	6.554	0.621
8	Is it necessary to use fluoride-content toothpaste?	3.524	0.297
9	Is it necessary to lift the child's lip and see for any discoloration?	6.175	0.105
10	How can we stop long-time night feeding?	6.772	0.054*
11	Fluoridated toothpaste >3 years—pea sized <3 years—grain sized	6.616	0.026*
12	Main advantages of lifting the lip: Can identify the active lesion or initial caries Can check for white/black lesions	6.358	0.148
13	When feeding can be given	6.118	0.131
14	What type of toothbrush and paste can be used for a child?	5.894	0.451
15	How often should I lift my child's lip and check for any changes?	5.996	0.278

*Statistically significant ($p \leq 0.05$)

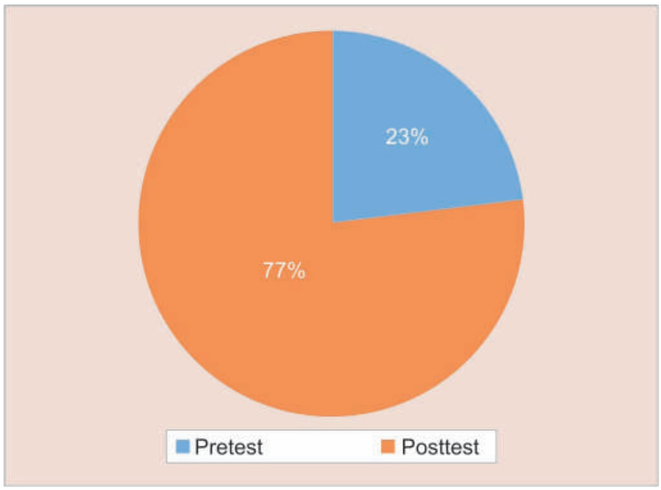


Fig. 6: Overall awareness obtained postinterviewing

CONCLUSION

In brief, MI provides a better tool for anticipating the Dyad.

It enables the level of knowledge of mothers and caregivers and provides the structural way of anticipatory guidance and self-motivating them to start practicing various steps to prevent ECC. MI has proven to be a successful way of anticipatory guidance.

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KELAS *PARENTING* TENTANG *ANTICIPATORY GUIDANCE* UNTUK MENINGKATKAN PENGETAHUAN-KETERAMPILAN ORANG TUA DALAM TATALAKSANA KEJADIAN CEDERA *TODDLER*

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ABSTRAK

Anak usia toddler merupakan masa intensif dalam mengeksplorasi lingkungan dan rasa ingin tahu besar. Mereka mengeksplorasi menggunakan seluruh panca indra dan mengabaikan potensi bahaya yang menyebabkan kecelakaan, bahkan mengakibatkan kematian. Anticipatory Guidance merupakan pedoman dalam memberikan asuhan pada anak sehingga orang tua mampu menghadapi masalah di setiap perkembangan anak, seperti risiko terjadinya cedera. Tujuan penelitian adalah untuk mengetahui optimalisasi kelas parenting tentang anticipatory guidance untuk meningkatkan pengetahuan-keterampilan orang tua dalam tatalaksana kejadian cedera toddler. Jenis penelitian adalah Quasi Eksperimental Design Nonequivalent Control Group Design. Penelitian dilakukan di KB (Kelompok Belajar) Aisyiyah Ledug dan KB Baitul Afiah sebanyak 45 responden dengan teknik total sampling. Teknik pengumpulan data menggunakan kuesioner dengan 30 pertanyaan dan lembar observasi dengan 7 pertanyaan untuk mengetahui pengetahuan-keterampilan sebelum dan sesudah perlakuan. Analisa yang digunakan adalah uji Wilcoxon dan uji Mann-Whitney. Menghasilkan nilai p-value pengetahuan 0,024 dan p-value keterampilan 0,000, artinya terdapat perbedaan yang signifikan terhadap pengetahuan dan keterampilan orang tua pada kelompok intervensi dan kelompok kontrol. Disimpulkan bahwa terdapat pengaruh kelas parenting terhadap pengetahuan dan keterampilan orang tua tentang anticipatory guidance dalam tatalaksana kejadian cedera anak toddler.

Kata kunci: anticipatory guidance; cedera toddler; kelas parenting; keterampilan; pengetahuan

PARENTING CLASSES ON ANTICIPATORY GUIDANCE TO IMPROVE PARENTS' KNOWLEDGE-SKILLS IN MANAGEMENT TODDLERS INJURY

ABSTRACT

Toddlers are intensive in exploring the environment and have great curiosity. They explore using all five senses and ignore potential dangers that cause accidents and even death. Anticipatory Guidance is a guideline in providing care to children so that parents can face problems in each child's development, such as the risk of injury. To find out the optimization of parenting classes regarding anticipatory guidance to increase parental knowledge and skills in managing toddler-aged injuries. This was Quasi-Experimental research a Nonequivalent Control Group Design. The research was conducted at KB Aisyiyah Ledug and KB Baitul Afiah with as many as 45 respondents using a total sampling technique. The data collection technique uses a questionnaire with 30 questions and an observation sheet with 7 questions to learn the skills before and after the treatment. The analysis used the Wilcoxon test and the Mann-Whitney test. Result in a p-value of the knowledge was 0.024 and the skill was 0.000, meaning that there is a significant difference in the knowledge and skills of parents between the intervention and the control groups. It was concluded that parenting classes had an impact on parental knowledge and skills regarding anticipatory guidance in managing toddler-aged injuries.

Keywords: anticipatory guidance; knowledge; parenting class; skills; toddler injury

PENDAHULUAN

Setiap anak adalah individu yang unik dengan kebutuhan yang sesuai dengan tahap perkembangannya. Periode *toddler*, yang mencakup usia 12 hingga 36 bulan atau 1 hingga 3 tahun, adalah waktu yang ditandai oleh eksplorasi lingkungan yang intensif (Lestari et al., 2021). Anak usia *toddler* memiliki penasaran yang begitu besar dan sangat aktif bergerak. Mereka mengeksplorasi lingkungan dengan semua panca indranya dan mengabaikan potensi bahaya yang dapat menyebabkan kecelakaan, melukai tubuh bahkan kematian (Kementerian Kesehatan RI, 2016).*World Health Organization* (WHO) mendefinisikan cedera merujuk pada suatu kondisi yang disebabkan oleh faktor eksternal, yang terjadi secara mendadak dan dengan cepat mengakibatkan kerusakan fisik atau psikologis (Lestari et al., 2021). WHO dalam Kameliawati et al. (2019) menyatakan sebanyak 371/100.000 anak usia 0-3 tahun di seluruh dunia meninggal setiap tahunnya akibat cedera. Cedera menyebabkan 5,8 juta kematian di seluruh dunia, lebih dari 3 juta di antaranya terjadi di negara-negara berkembang. Salah satunya Indonesia, dalam Riset Kesehatan Dasar (2018) jumlah yang mengalami cedera 1.017.290 dari total 1.689.236 responden, penyebab cedera usia 1- 4 tahun sebanyak 91.413 responden, di antaranya luka lebam/ memar sebanyak 78,9%, kecelakaan lalu lintas sebanyak 75,6%, jatuh dan keseleo sebanyak 17,2%, luka tumpul. tajam sebanyak 12,1%, dan luka bakar 1,4%.

Keracunan makanan adalah penyakit dengan tingkat keparahan dan tingkat kematian yang tinggi. Menurut data yang diperoleh *Center for Disease Control* (CDC), tingkat mortalitas akibat keracunan makanan adalah sekitar 1/15.000 orang, sedangkan data WHO mengindikasikan bahwa tingkat kematian global akibat keracunan maknan mencapai 420.000 per tahun. Periode tahun 2000 hingga 2015 Indonesia melaporkan kasus keracunan akibat makan mencapai 61.119 kasus dengan presentase tingkat kematian sebesar 0,4% (Hardini & Barmawi, 2022). Pada tahun 2011, WHO menyatakan terdapat 17.537 kasus anak usia *toddler* mengalami tersedak 59,5% disebabkan oleh makanan, 31,4% karena benda asing dan 9,1% belum diketahui (Aty & Deran, 2021). Dilansir dari Departemen Dinas Kesehatan Nasional penyebab tersedak adalah 105 anak tersedak biji-bijian, 82 anak tersedak kacang-kacangan, 79 anak tersedak sayur dan lainnya tersedak logam dan tulang ikan (Rahayu & Anggeriyane, 2022).

Menurut WHO, kejadian tenggelam menyumbang 0,7% dari totoal kematian di dunia, dengan lebih dari 500.000 kematian setiap tahun disebabkan oleh kejadian ini.. WHO tahun 2014, sekitar 372.000 orang tenggelam setiap tahun (Putra, 2018). Menurut WHO, Indonesia memiliki 3,3 kasus tenggelam per 100.000 jiwa atau hampir 9000 orang, tahun 2016 (Safitri, 2019). Sebagian besar insiden tenggelam terjadi di negara-negara berkembang, terutama pada anak-anak yang berusia di bawah 5 tahun. Sekitar 90% dari kasus tenggelam terjadi di perairan tawar seperti danau, sungai, dan kolam, sedangkan sisanya sekitar 10% terjadi di laut (Putra, 2018). Menurut WHO (2012), frekuensi kejang demam menyebabkan epilepsi hingga 80%, terutama di negara-negara berkembang (Dewi et al., 2019). Insiden kejang demam dilaporkan lebih besar di Asia terhitung sekitar 80% - 90% dari semua kejang demam sederhana. Berdasarkan data Ikatan Dokter Anak Indonesia (IDAI) tahun 2014, kejang demam merupakan kasus yang terjadi pada sekitar 2-5% anak yang berusia 6 bulan hingga 3 tahun di Indonesia, dan dari jumlah tersebut, sekitar 30% mengalami kejang demam yang berulang (Z. Rasyid et al., 2019).

Tingkat kejadian cedera paling banyak terjadi di rumah dan sekitarnya hingga 91,2% (Riset Kesehatan Dasar, 2018). Pencegahan cedera dapat terwujud ketika orang tua memiliki pemahaman yang memadai tentang perkembangan anak pada usia toddler (Kusbiantoro, 2014). Hasil penelitian Rusdiana (2021) yang melibatkan 35 ibu yang memiliki anak di bawah usia 5 tahun, ditemukan bahwa sekitar setengah dari responden menunjukkan sikap dan pengetahuan yang kurang memadai. Hasil penelitian ini mengindikasikan bahwa terdapat korelasi antara pengetahuan ibu dan perilaku pencegahan kecelakaan pada anak. Dengan kata lain, semakin baik pengetahuan ibu, semakin besar dampaknya pada upaya pencegahan kecelakaan pada anak usia *toddler*.

Berdasarkan penelitian Grat et al. (2022) Pemahaman yang berkembang seiring dengan pertumbuhan anak dapat membantu dalam mengidentifikasi dan mengantisipasi potensi bahaya. Pengetahuan memungkinkan dapat mempengaruhi keterampilan dan tindakan orang tua dalam melakukan tatalaksana cedera. *Anticipatory* berarti lebih dahulu, *guidance* berarti petunjuk (Lestari et al., 2021). *Anticipatory guidance* adalah panduan yang berperan penting dalam membimbing pengasuhan anak, membekali orang tua dengan wawasan yang memungkinkan mereka mengatasi berbagai masalah dan tantangan dalam proses perkembangan anak, dengan tujuan agar anak dapat mengalami pertumbuhan dan perkembangan yang optimal (Hockenberry et al., 2017). Metode kelas *parenting* digunakan dalam penelitian ini sebagai upaya untuk memberikan pemahaman yang lebih mendalam, agar mampu memberikan tatalaksana dan pencegahan cedera yang dapat terjadi pada anak. Kelas *parenting* adalah pembinaan bagi orang tua yang tujuannya membantu orang tua menjadikan lingkungan rumah yang aman dan nyaman sehingga kondusif bagi pertumbuhan dan perkembangan anak (Rahmah et al., 2022).

Berdasarkan fenomena di atas, peneliti tertarik untuk memberikan pendidikan kesehatan dengan metode kelas *parenting* untuk orang tua yang memiliki anak usia *toddler* mengenai tatalaksanan kejadian cedera pada anak usia *toddler.* Oleh karena itu, penelitian ini bertujuan untuk memberikan orang tua keterampilan yang memungkinkan mereka mengatasi berbagai masalah dan tantangan yang mungkin muncul dalam perjalanan perkembangan anak, sehingga anak dapat tumbuh dan berkembang secara normal dan optimal.

METODE

Metode yang digunakan pada penelitian ini adalah kuantitatif, dengan desain Quasi Eksperimental Design menggunakan Nonequivalent Control Group Design. Populasi pada penelitian ini adalah seluruh orang tua siswa KB (Kelompok Belajar) Aisyiyah Ledug dan KB Baitul Afiah yang berjumlah 45 responden yang dibagi menjadi dua kelompok, untuk 22 responden kelompok intervensi dan 23 responden kelompok kontrol. Penelitian ini dilaksanakan pada bulan November 2022 sampai dengan Februari 2023 di KB Aisyiyah Ledug dan KB Baitul Afiah. Penelitian ini menggunakan teknik total sampling. Dengan kriteria inklusi adalah orang tua yang memiliki anak terdaftar sebagai siswa di KB Baitul afiah dan KB aisyiyah, orang tua dengan anak usia toddler, orang tua yang hadir dan yang bersedia mengikuti penelitian. Teknik pengumpulan data menggunakan kuesioner pengetahuan dengan 30 pertanyaan dan lembar observasi keterampilan dengan 7 pertanyaan dengan skala guttman. Uji validitas pada penelitian ini diperoleh taraf signifikansi 5% adalah 0,396. Uji normalitas dengan metode Shapiro-wilk didapatkan nilai probabilitas (p value) < 0,05, oleh karena itu analisis bivariat menggunakan uji non parametrik yaitu uji wilcoxon dan uji mann-whitney.

HASIL

Tabel 1.
Distribusi Frekuensi Karakteristik Orang Tua (n=45)

Karakteristik Orang Tua	Kelompok Intervensi		Kelompok Kontrol	
	f	%	f	%
Usia				
17-25	0	0	3	13
26-35	18	81,8	14	60,9
36-45	4	18,2	6	26,1
Pendidikan				
SMP	0	0	6	26,1
SMA	15	68,2	10	43,5
Perguran Tinggi	7	31,8	7	30,4

Tabel 1, dapat dilihat bahwa mayoritas orang tua berusia antara 26 hingga 35 tahun, dengan 18 responden (81,8%) intervensi dan 14 responden (60,9%) kontrol. Sebagian besar memiliki latar belakang pendidikan SMA, dengan 15 responden (68,2%) intervensi dan 10 responden (43,5%) kontrol.

Tabel 2.
Distribusi Frekuensi Karakteristik Anak (n=45)

Karakteristik Anak	Kelompok Intervensi		Kelompok Kontrol	
	f	%	f	%
Usia				
24-42 bulan	22	100	23	100
Jenis Kelamin				
Laki-laki	7	31,8	9	39,1
Perempuan	15	68,2	14	60,9
Anak ke-Berapa				
Anak pertama	13	59,1	14	60,9
Anak kedua	9	40,9	5	21,7
Anak ke >3	0	0	4	17,4
Cedera yang pernah dialami				
Luka bakar	7	31,8	4	17,4
Luka terjatuh	13	59,1	15	65,2
Keracunan	1	4,5	0	0
Tersedak	1	4,5	3	13
Kejang demam	0	0	1	4,3

Tabel 2, dapat disimpulkan bahwa mayoritas anak memiliki usia antara 24 hingga 42 bulan dan jenis kelamin perempuan merupakan yang paling banyak. Sebagian besar adalah anak pertama dan mayoritas mereka pernah mengalami cedera karena terjatuh.

Tabel 3.
Perbedaan Pengetahuan Sebelum dan Sesudah Diberikan Perlakuan (n=45)

Variabel	Kelompok Intervensi		Kelompok Kontrol	
	Pretest	Posttest	Pretest	Posttest
Pengetahuan				
Mean	43,73	51,23	42,96	49,04
Median	45,50	50,50	42,00	48,00
Std. Deviasi	5,091	2,759	5,481	3,649
Minimum	35	47	34	40
Maximum	51	56	51	56

Tabel 3, terlihat bahwa rata-rata nilai pengetahuan pada kelompok intervensi mengalami peningkatan sebesar 7,5. Sementara itu, rata-rata nilai pengetahuan pada kelompok kontrol juga mengalami peningkatan sebesar 6,08. Terdapat selisih rata-rata kenaikan pada kelompok intervensi dan kelompok kontrol sebesar 1,42. Hal tersebut dapat disimpulkan bahwa pemberian kelas *parenting* pada kelompok intervensi efektif dalam meningkatkan nilai rata-rata nilai pengetahuan dibandingkan dengan kelompok kontrol.

Tabel 4.
Perbedaan Keterampilan Sebelum dan Sesudah Diberikan Perlakuan (n=45)

Variabel	Kelompok Intervensi		Kelompok Kontrol	
	Pretest	Posttest	Pretest	Posttest
Keterampilan				
Mean	35,00	44,09	35,87	38,87
Median	35,00	45,00	36,00	39,00
Std. Deviasi	2,760	2,308	3,005	3,020
Minimum	31	39	30	33
Maximum	41	47	40	44

Tabel 4, menunjukkan bahwa rata-rata nilai keterampilan pada kelompok intervensi mengalami peningkatan sebesar 9,09. Sedangkan rata-rata nilai keterampilan pada kelompok kontrol juga mengalami peningkatan sebesar 3,00. Terdapat selisih rata-rata kenaikan pada kedua kelompok sebesar 6,09. Hal tersebut dapat disimpulkan bahwa pemberian kelas *parenting* pada kelompok intervensi efektif dalam meningkatkan nilai keterampilan dibandingkan kelompok kontrol.

Tabel 5.
Perbedaan Pengetahuan dan Keterampilan Orang Tua Sebelum dan Sesudah Diberikan Perlakuan (n=45)

Kelompok	f	Nilai Z	*p-value*
Pretest-Posttest Pengetahuan Intervensi	22	-4.117	0,000
Pretest-Posttest Keterampilan Intervensi	22	-4.116	0,000
Pretest-Posttest Pengetahuan Kontrol	23	-4.206	0,000
Pretest-Posttest Keterampilan Kontrol	23	-4.138	0,000

Tabel 5, terdapat 2 kelompok dimana data tidak memenuhi syarat distribusi normal dan 6 kelompok lainnya memiliki data distribusi normal. Sehingga disimpulkan bahwa dalam penelitian ini data tidak terdistribusi normal dengan *p-value* < 0,05. Oleh karena itu, analisis statistik dilakukan dengan uji non parametrik yaitu uji *Wilcoxon* dan uji *Mann-Whitney*.

Tabel 6.
Pengaruh Kelas *Parenting* Terhadap Pengetahuan dan Keterampilan Orang Tua

Variabel	Mean Rank		*Mann-Whitney*	*p-value*
	Intervensi	Kontrol		
Pengetahuan	27,50	18,70	154.000	0,024
Keterampilan	32,64	13,78	41.000	0,000

Tabel 6 hasil uji *mann-whitney* pada Tabel 6. Mean rank dalam kelompok intervensi pada kedua variabel lebih tinggi daripada mean rank di kelompok kontrol. Hasil uji statistik menunjukkan *p-value* pengetahuan adalah 0,024 dan *p-value* keterampilan 0,000. Maka Ho ditolak yang berarti terdapat pengaruh kelas *parenting* terhadap pengetahuan dan keterampilan orang tua tentang *anticipatory guidance* dalam tatalaksana kejadian cedera anak *toddler*.

PEMBAHASAN

Berdasarkan temuan dari penelitian ini, terdapat perbandingan yang menunjukkan peningkatan tingkat pengetahuan sebelum dan setelah perlakuan. Dilihat dari hasil *posttest* yang lebih tinggi dibandingkan dengan hasil *pretest*, yang menunjukkan adanya perbedaan dalam tingkat pengetahuan orang tua, yang dipengaruhi oleh faktor-faktor seperti tingkat pendidikan dan usia responden. Seperti dalam penelitian Zulkefli et al. (2022) menunjukkan bahwa orang tua yang berpendidikan dan berpengetahuan tinggi lebih peduli terhadap perkembangan anaknya, sehingga aspek pengetahuan menjadi hal yang penting untuk mencegah cedera pada anak.

Pengetahuan ini sendiri dipengaruhi oleh berbagai faktor, termasuk pendidikan, pekerjaan, usia, minat, pengalaman hidup, budaya lingkungan sekitar, dan juga informasi kesehatan yang diterima. Menurut hasil penelitian yang dilakukan oleh Nurlaila et al. (2021), pengetahuan menjadi dasar penting bagi tindakan dan perilaku orang tua, terutama saat mengasuh anak. Penelitian ini memfasilitasi orang tua untuk memahami *anticipatory guidance* dalam tatalaksana cedera. Ketika orang tua telah dibekali oleh pengetahuan maka mereka akan dapat melakukan tindakan pertolongan dan perawatan yang baik bagi anak. Tingkat pengetahuan dalam penelitian ini juga dipengaruhi oleh pengalaman responden, salah satunya jumlah anak yang dimiliki. Seperti dalam penelitian Putri (2019), pengetahuan atau aspek kognitif merupakan domain yang sangat penting dalam membentuk tindakan individu. Faktor pengetahuan ini dipengaruhi oleh pengalaman orang tua.

Hasil penelitian menunjukkan bahwa terdapat perbandingan yang signifikan antara tingkat keterampilan sebelum dan setelah perlakuan. Selama intervensi, responden diberikan kebebasan untuk mempraktikkan berbagai tindakan tatalaksana cedera, yang mengakibatkan peningkatan keterampilan. Hal ini dibuktikan dengan adanya peningkatan nilai rata-rata keterampilan setelah diberikan perlakuan. Penelitian ini diperkuat oleh studi Liu et al. (2022), keterampilan tidak akan tercapai kecuali didukung oleh sumber daya yang memadai, karena fasilitas merupakan proses menjadi terampil. Fasilitas dalam konteks ini merujuk pada berbagai hal, baik berupa peralatan maupun pelatihan keterampilan, yang dapat membantu meningkatkan kemampuan seseorang.Pendidikan kesehatan dapat melibatkan berbagai metode, salah satunya metode demontrasi yang digunakan dalam penelitian ini. Studi lain yang mendukung yaitu Wahyuni et al. (2020), yang menyatakan bahwa demonstrasi merupakan suatu cara untuk menyampaikan pelajaran dengan cara memperagakan proses, keadaan atau objek yang dipelajari dengan penjelasan lisan. Cara ini efektif untuk meningkatkan keterampilan memberikan pertolongan pertama jika terjadi kecelakaan.

Data analisis statistik menggunakan uji *mann-whitney* menunjukkan bahwa nilai *p-value* < 0,05 pada variabel pengetahuan dan keterampilan. Ini mengindikasikan bahwa tingkat pengetahuan dan keterampilan mengalami peningkatan pada kelompok intervensi yang menerima perlakuan dengan kelas *parenting*. Pada penelitian ini, kelas *parenting* menggunakan beberapa metode seperti presentasi, latihan individu, studi kasus dan simulasi. Penelitian ini diperkuat oleh penelitian Ikhsan (2018) yang memiliki nilai Asymp. Sig (2-sided) sebesar 0,035 < 0,05. Hal ini menggambarkan bahwa pelatihan parenting dengan metode studi kasus terbukti efektif dalam meningkatkan pemahaman pola pengasuhan orang tua siswa kelas III A SDN Deresan Yogyakarta, serta dapat memenuhi indikator efektivitas pelatihan.

Studi lain yang memberikan dukungan adalah Nandang et al. (2018) yang menggunakan pendekatan kualitatif dengan metode deskriptif menjelaskan bahwa pelatihan teknik *parenting* yang dilakukan oleh rumah *perenting* menyebabkan perubahan yang signifikan dalam pengetahuan, sikap dan perilaku orang tua dalam pengasuhan pada anak setelah mengikuti pelatihan tersebut. Setelah diberikan perlakuan dengan kelas *parenting,* responden mampu mengimplentasikan *anticipatory guidance* dalam pengasuhan pada anak, sebab mereka telah memahami bagaimana tatalaksana cedera dilakukan. Hal ini juga didukung oleh hasil statistik dalam penelitian tersebut.Penelitian ini sejalan oleh penelitian Arsana et al. (2020) dalam pelatihan *parenting* di Desa Kauman, Sedayu, Gresik. Mereka menemukan bahwa pemahaman tentang pembentukan karakter anak meningkat melalui kegiatan pelatihan *parenting* di komunitas tersebut. Hal ini tercermin dari hasil *pretest* 8 dari 37 peserta masuk dalam kategori pengetahuan baik, sedangkan hasil *possttest* menunjukkan 29 dari 37 peserta masuk dalam kategori pengetahuan baik.

Tambahan dukungan untuk hasil penelitian ini juga oleh Erhamwilda et al. (2022), hasil uji *Wilcoxon Signed Rank* dengan nilai probabilitas sig. 0,000. Artinya, nilai *p-value* < 0,05; yang mengindikasikan adanya perbedaan yang signifikan dalam tingkat pengetahuan orang tua sebelum dan sesudah mengikuti pelatihan *parenting* dalam konteks pengasuhan generasi qur'ani.Studi yang dilakukan oleh Zuurmond et al. (2018) melibatkan 75 orang tua yang memiliki anak penderita cerebral palsy dalam rentang usia 18 bulan hingga 12 tahun yang mengikuti program pelatihan *parenting*. Hasil dari penelitian ini menunjukkan bahwa dengan menggunakan uji *Wilcoxon,* ditemukan nilai *pvalue* < 0,05. Hasil ini mengindikasikan bahwa program pelatihan *parenting* yang disampaikan melalui pembentukan kelompok dengan penekanan pada pemberdayaan orang tua sebagai pengasuh, menghasilkan peningkatan kualitas hidup pada anak-anak yang mengidap cerebral palsy.

Studi yang dilakukan oleh Sholichah et al. (2021) mengadopsi pendekatan kualitatif dengan menggunakan teknik observasi dan wawancara kepada orang tua di TK Bilqis Center Indonesia. Subjek penelitian terdiri dari orang tua yang secara rutin mengikuti program *parenting* di sekolah setiap satu bulan sekali. Dari hasil wawancara dengan orang tua, disimpulkan bahwa efektivitas kajian *parenting* dapat diamati melalui kesadaran orang tua dalam mendidik anak, yang tercermin dalam perubahan komunikasi dan pola pengasuhan orang tua.Penelitian yang dilakukan oleh Rasyid et al. (2019) melibatkan 15 orang tua yang memiliki Anak Berkebutuhan Khusus (ABK). Dalam metode pelatihan, menggunakan uji *pre-post test*, berbagi pengalaman dalam pengasuhan anak ABK, ceramah serta memberikan praktik tentang cara mengenali kebutuhan dan pengasuhan positif. Selain itu, dilakukan tindak lanjut dalam menerapkan metode pengasuhan positif di rumah selama satu minggu. Hasil penelitian menyimpulkan bahwa terdapat peningkatan dalam tingkat pengetahuan orang tua tentang pengasuhan anak berkebutuhan khusus dan mampu menjalankan pengasuhan positif dengan baik dirumah selama 1 minggu. Hal ini dapat dilihat dari peningkatan skor pada uji *pre-post test* sebesar 5-30 poin.
Berdasarkan jurnal-jurnal pendukung dari penelitian ini dan dari hasil nilai rerata tingkat pengetahuan dan keterampilan menunjukkan terjadinya peningkatan yang signifikan pada responden yang mendapatkan perlakuan dengan metode kelas *parenting*. Oleh karena itu, dapat disimpulkan bahwa Ho ditolak yang artinya ada pengaruh kelas *parenting* terhadap tingkat pengetahuan dan keterampilan tentang *anticipatory guidance* dalam tatalaksana kejadian cedera anak usia *toddler*.

SIMPULAN

Hasil penelitian pada orang tua di KB Aisyiyah Ledug dan KB Baitul Afiah mengindikasikan bahwa setelah mengikuti kelas parenting dalam kelompok intervensi, terjadi peningkatan pada pengetahuan dan keterampilan mereka. Dengan demikian, dapat disimpulkan bahwa terdapat pengaruh kelas parenting terhadap pengetahuan dan keterampilan orang tua tentang anticipatory guidance dalam tatalaksana kejadian cedera anak toddler. Hal ini ditunjukan oleh hasil p-value < 0,05 pada kedua variabel. Penelitian ini mengevaluasi pengaruh pendidikan hanya dari ranah tingkat pengetahuan (kognitif) dan keterampilan (psikomotorik), untuk penelitian selanjutnya perlu dikembangkan dengan menambahkan ranah sikap (afektif). Sehingga keberhasilan proses pendidikan dapat dinilai secara menyeluruh dari tiga ranah.

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8th EDITION

BURNS' Pediatric Primary Care

Dawn Lee **Garzon**
Mary **Dirks**
Martha **Driessnack**
Karen G. **Duderstadt**
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13

Developmental Management of Adolescents

JAIME E. PANTON

Adolescence is a period of significant growth and development, which in many ways rivals the rate and degree of changes seen during infancy. It is separated into three phases: early adolescence (11–14 years), middle adolescence (15–17 years), and late adolescence (18–21 years). Throughout each phase, reassurance, information, and anticipatory guidance about what to expect are among the most valuable services a primary care provider (PCP) can offer the adolescent and family. In addition, acknowledging and respecting gender and sexual identities, as well as using correct pronouns are crucial for developing rapport with teens (see Chapter 7). Successful adolescent development culminates in the achievement of goals that provide the basis for a healthy, productive adult life. This chapter provides an overview of development, focusing specifically on pubertal changes and sexual maturation, along with social, emotional, and cognitive changes. Common issues are then highlighted, assessment and management are emphasized, and the chapter concludes with health supervision content that is organized by adolescent phase. Collectively, this information provides PCPs with a framework for structuring primary care of the adolescent.

Developmental Overview of Adolescence

Adolescence comes from the Latin root *adolescere*, meaning to grow up. This period involves psychological and physical transition from child to adult and is influenced by social, genetic, and environmental factors.[1] Pubertal physical changes are accompanied by significant social, emotional, and cognitive shifts that affect how adolescents view themselves and how others view adolescents. *Puberty* is the development of secondary sexual characteristics and the biological process that ultimately leads to fertility. Pubertal changes occur on a continuum with individual differences in timing or tempo. Our understanding of pubertal timing and progression comes from studies of White participants of European heritage. Research with racially and ethnically diverse children and with sexual and gender minority young people continues to emerge.[2] Also, of note in recent years is the impact of early adversity (e.g., adverse childhood experiences [ACEs]), as it appears to predict earlier pubertal timing, especially for girls; this highlights another important rationale for ACEs screening.[3]

Physical Growth and Development and Organ Maturation

Puberty is characterized by a period of rapid growth, development, and maturation. The hormonal regulatory systems in the hypothalamus, pituitary, gonads, and adrenal glands undergo major changes between prepubertal and adult states. Accompanying these changes are rapid height and weight growth, secondary sex characteristics development, and fertility onset (Fig. 13.1). Typical development can be difficult to define and is, at best, an approximation rather than a precise parameter. Even though the timing of adolescent development varies, the sequence of events is consistent (Fig. 13.2).

Sexual Maturity Rating

Pubertal growth and maturation assessment is completed using the Sexual Maturity Rating (SMR) scales, which are divided into five stages (Figs. 13.3–13.5).

Female Stages. Females tend to enter puberty earlier than males. They progress sequentially in the following pattern:

- Ovaries increase in size; no visible body changes occur.
- *Thelarche* (breast budding) begins as a result of estradiol secretion; it traditionally occurs between age 8 and 13 years, with the average onset at 10.3 years.[4,5] Most females (85%) experience breast bud development approximately 6 months before the appearance of pubic hair. The timing of breast development onset in females has no relationship to adult breast size.
- Rapid linear growth begins shortly after breast budding onset. Most females reach *peak height velocity* (PHV) during SMR 2 and 3, at an average age of 11 or 12 years, which is typically 6 to 12 months before menarche (onset of menses). The growth rate slows, as females typically expect to grow no more than 2 to 3 inches after menarche. By age 15 years, females usually complete their linear growth.[4,6] Final height is determined by the amount of bone growth at the long bone epiphyses. Growth stops when hormonal factors shut down the epiphyseal plates.
- *Adrenarche, or pubarche* (pubic hair) begins around 11.5 years and is due to adrenal development. The pubic patch

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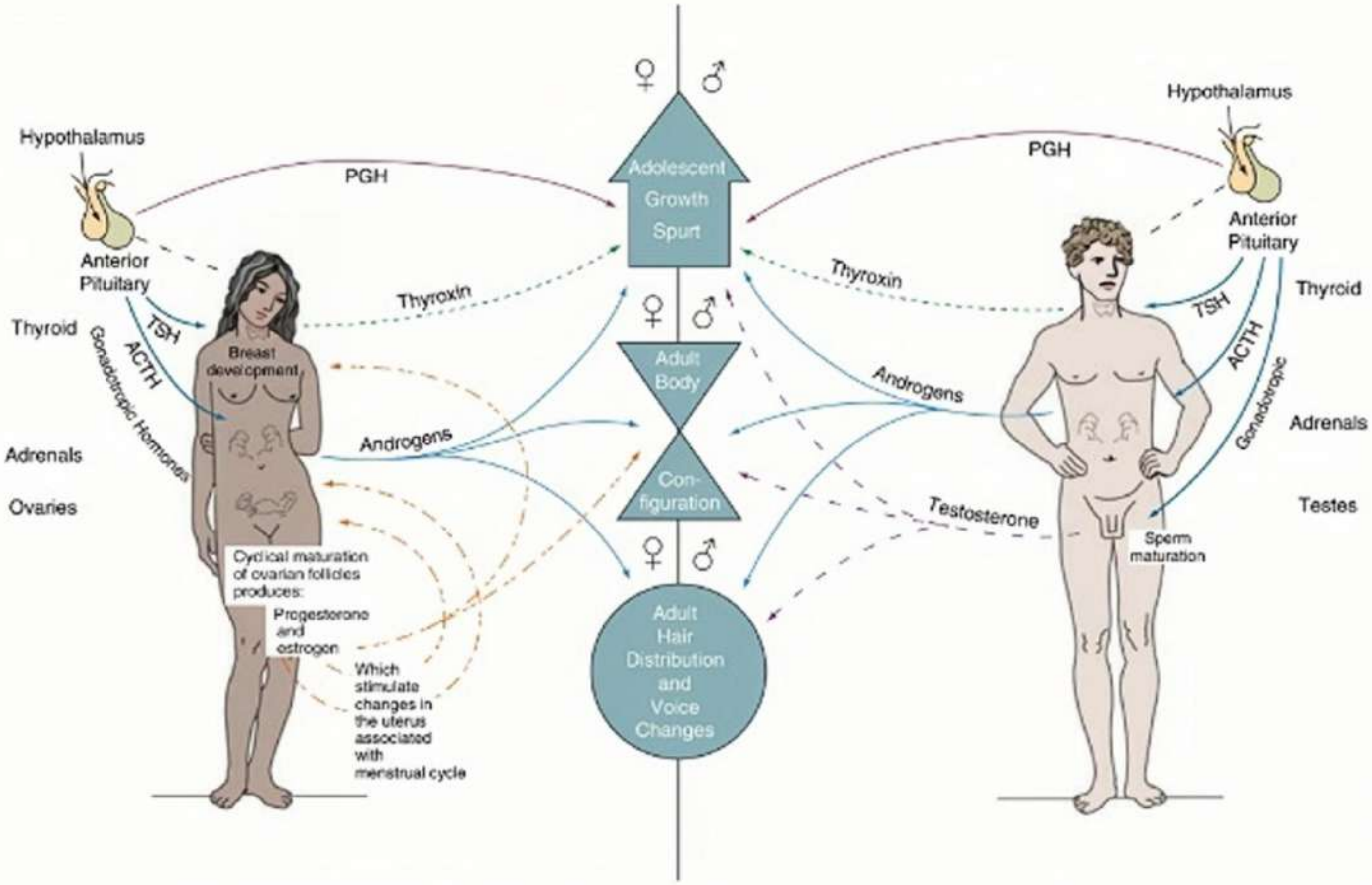
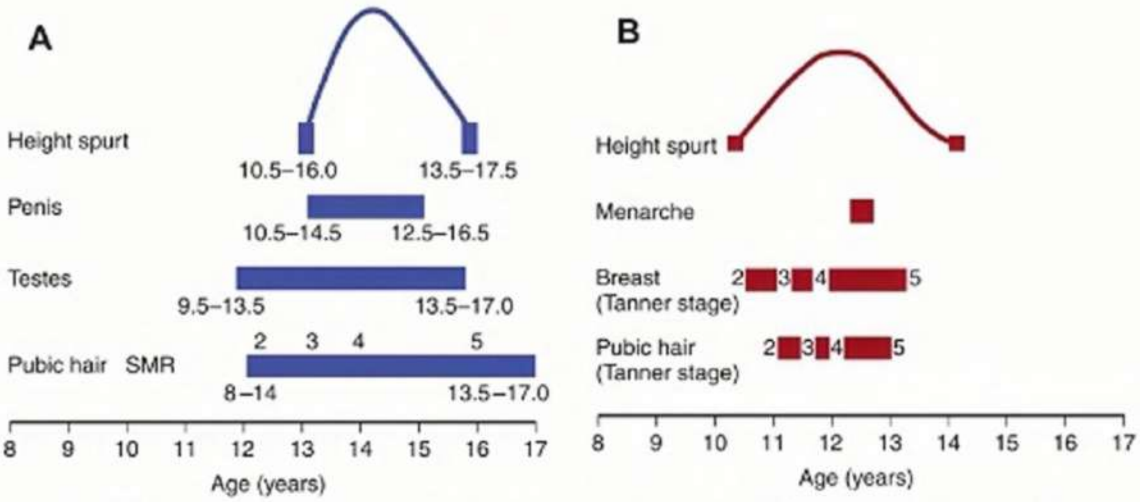

♀ ♂
Adolescent Growth Spurt
♀ ♂
Adult Body
Con-figuration
♀ ♂
Adult Hair Distribution and Voice Changes
Hypothalamus
PGH
Anterior Pituitary
Thyroid
TSH
ACTH
Gonadotropic Hormones
Adrenals
Ovaries
Thyroxin
Breast development
Androgens
Cyclical maturation of ovarian follicles produces:
Progesterone and estrogen
Which stimulate changes in the uterus associated with menstrual cycle
Hypothalamus
PGH
Anterior Pituitary
Thyroid
TSH
ACTH
Gonadotropic
Adrenals
Testes
Thyroxin
Androgens
Testosterone
Sperm maturation

• **Fig. 13.1** The Endocrine System at Puberty. *ACTH,* Adrenocorticotropic hormone; *PGH,* pituitary growth hormone; *TSH,* thyroid-stimulating hormone. (From Valadian I, Porter D. *Physical Growth and Development from Conception to Maturity*. Little, Brown; 1977.)



• **Fig. 13.2** Sequence of Pubertal Events. (A) Age at time of physiologic changes during natal female and natal male puberty. (B) Sequence of pubertal events in the average American female. *SMR*, Sexual maturity rating. (A, Modified from Tanner JM. *Growth at Adolescence*. Oxford: Blackwell Scientific Publications; 1962. B, From Tanner JM. Growth and endocrinology of the adolescent. In: Gardner LI, editor. *Endocrine and Genetic Diseases of Childhood and Adolescents*. 2nd ed. WB Saunders; 1975.)

initially grows in a triangular pattern that covers the vulva and mons pubis. Pubic hair is less valid than other secondary sex characteristics when assessing sexual maturation, as some females shave or wax their body hair and there is some familial variation. To accurately assess SMR stage, the PCP should ask where pubic hair would be present if the patient did not shave.[7] In addition to public hair, adrenal changes in puberty also lead to the development of axillary hair, acne, and adult-type body odor.

- *Menarche* (onset of menses) occurs approximately 2.5 years after thelarche.[4] The mean age of menarche is highly dependent on ethnic, socioeconomic, and nutritional factors and ranges from 9 to 15 years. It can take up to 2 years after menarche before females establish regular ovulatory cycles.

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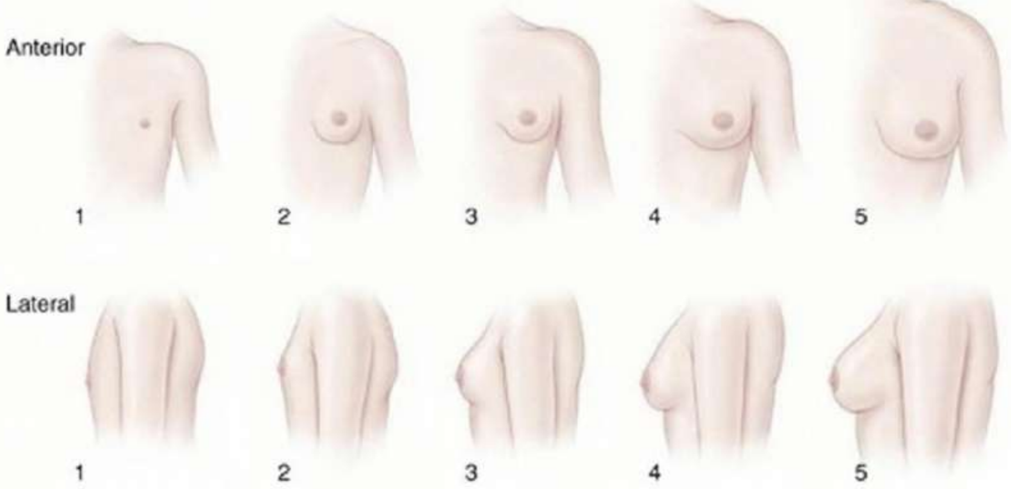
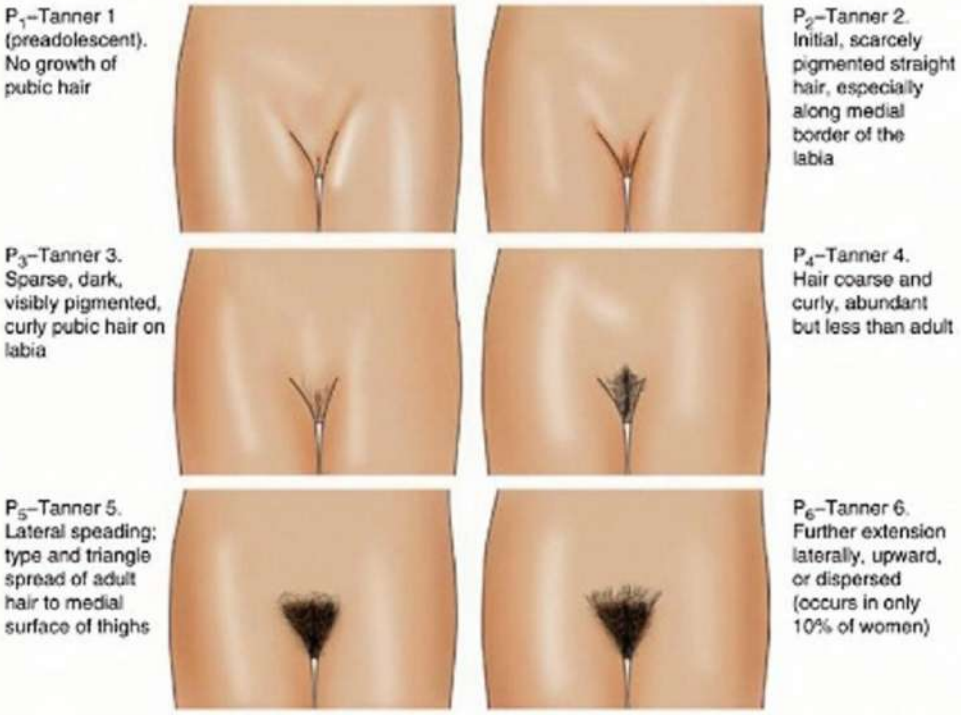

Anterior
1
2
3
4
5
Lateral
1
2
3
4
5

• **Fig. 13.3** Normal Female Breast Development, SMR Stages 1 to 5. *SMR*, Sexual maturity rating. (From Herring JA. *Tachdjian's Pediatric Orthopaedics*. 4th ed. Elsevier; 2008.)


P_1–Tanner 1 (preadolescent). No growth of pubic hair
P_2–Tanner 2. Initial, scarcely pigmented straight hair, especially along medial border of the labia
P_3–Tanner 3. Sparse, dark, visibly pigmented, curly pubic hair on labia
P_4–Tanner 4. Hair coarse and curly, abundant but less than adult
P_5–Tanner 5. Lateral speading; type and triangle spread of adult hair to medial surface of thighs
P_6–Tanner 6. Further extension laterally, upward, or dispersed (occurs in only 10% of women)

• **Fig. 13.4** Normal Female Genitalia Development, SMR Stages 1 to 6. *SMR*, Sexual maturity rating. (From Duderstadt K. *Pediatric Physical Examination: An Illustrated Handbook*. 2nd ed. Elsevier; 2014:245.)

Female pubertal changes occur at earlier ages than in past decades with some notable variations. For example, thelarche occurs earlier in Black females (median age 8.8 years) compared to Latina (9.3 years) and White (9.9 years) females.[8] Understanding racial and ethnic differences in pubertal timing is vital to improving health and reducing disparities.[8] Further, females who develop secondary sex characteristics earlier than their peers are at increased risk for sexual assault, sexual abuse, psychosocial issues, and depression.[9]

There are changes in body composition during puberty, and adolescent girls benefit from the PCP's reassurance that these changes are typical. For example, initial breast development usually begins as a unilateral disk-like subareolar swelling, and many adolescents and parents may initially present with concerns about breast tumors. Girls often have asymmetric breasts and need assurance that breasts become approximately the same size within a few years after breast budding onset. Further, the female body shape changes, with broadening of the shoulders, hips, and thighs, and increases in proportion of fat to total body mass. Girls begin puberty with approximately 80% lean body weight and 20% body fat. By the end of puberty, lean body mass drops to about 75%. Body fat is an important mediator for the onset of menstruation and regular ovulatory cycles. An average of 17% of body fat is needed for menarche, and about 22% is needed to initiate and

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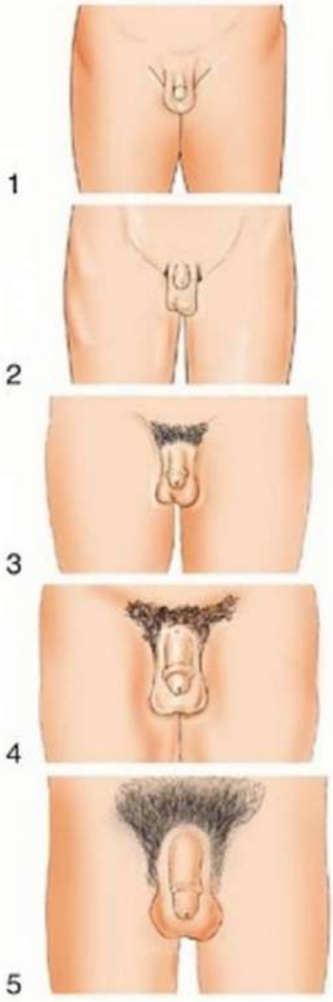

• **Fig. 13.5** Normal Male Genitalia Development, SMR Stages 1 to 5. *SMR*, Sexual maturity rating. (From Duderstadt K. *Pediatric Physical Examination: An Illustrated Handbook*. 2nd ed. Elsevier; 2014:216.)

maintain regular ovulatory cycles, which is particularly relevant when working with extreme athletes or individuals experiencing malnutrition. The American Academy of Pediatrics (AAP) and the American Congress of Obstetricians and Gynecologists recommend that PCPs recognize the menstrual cycle as a "vital sign" because of the need for education regarding normal timing and characteristics of menstruation and other pubertal signs.[10,11]

Acne is extremely common and while it can affect people of all ages, adolescents and young adults between 12 and 24 years tend to be the most affected group. It usually begins during the start of puberty, affecting girls earlier than boys. Both typically outgrow acne but about 12% of females (vs. 3% of males) may continue with acne into middle age.

Male Stages. Pubertal changes occur sequentially in males, as follows:

- The initial male pubertal sign (~11.5 years) is testicular enlargement.[4] Testes growth occurs approximately 6 months before pubic hair development in most males and can be assessed using an orchidometer (see Chapter 5). Once puberty begins, the left testis generally lies lower than the right. If testicular enlargement does not precede other changes, the PCP needs to consider whether the adolescent might be taking exogenous anabolic steroids.
- *Adrenarche*, or pubarche. Pubic hair development timing is similar to females; however, the distribution differs as the pubic patch tapers upward to a line of hair pointing toward the navel (upside-down triangle). Like females, some males shave or wax their body hair. To assess SMR, the PCP should ask where the pubic hair would grow if the patient did not shave (see Fig. 13.5).
- *Spermarche*, the first release of spermatozoa, generally occurs at any development stage from SMR 3 to 5.[6] The first ejaculation marks the potential for reproduction, but fertility is typically reached later, about one year after the first ejaculation.
- Elongation and widening of the penis usually begin in SMR 3 and continues through SMR 5 (see Fig. 13.5).
- Rapid growth in height occurs. The PHV occurs during SMR 4/5 and around age 14 years. Most males complete linear growth by age 17 years,[6] but they can continue to grow well beyond their teenage years. In general, boys generally lag 2 years behind girls and have a higher PHV than females.
- Change (lowering) in the male voice occurs in both males and females, but it is more striking in males, coinciding with the PHV. The increase in testosterone leads to a lengthening of the larynx cartilage as it moves down in the neck. The vocal cords also thicken and enlarge. This process begins with the first signs of testicular enlargement.
- Facial and body hair appears only after SMR 4 pubic hair appears. Facial hair starts at the outer corners of the upper lip and moves inward, then appears on the upper parts of the cheeks and middle of the lower lip, and finally grows along the sides and lower chin border. Body hair distribution is variable, influenced by dominant trait heredity and ethnicity.

Male body composition also changes. In contrast to females, males generally increase muscle mass from approximately 80% to 90% and lose body fat during puberty. Some additional changes associated with puberty may be unwelcome. Between 50% and 75% of males experience *gynecomastia*, a transient benign unilateral or bilateral enlargement of breast tissue, generally occurring mid-puberty (SMR 2–3) right before PHV.[12] Gynecomastia generally regresses in 6 months but can persist for 1 to 2 years. Most cases completely resolve by late puberty. In a small percentage of males, however, some palpable breast tissue persists. Although generally benign, gynecomastia can also occur secondary to anabolic steroid or illicit drug use. As with females, acne may develop in early puberty. By mid-puberty, many males have moderate to severe acne. In cases of persistent gynecomastia and/or severe acne, the PCP should ask if the adolescent is using alcohol, marijuana, or anabolic steroids, all of which can exacerbate these conditions. Other conversations to have with males relate to nocturnal emissions ("wet dreams"), which tend to emerge with puberty, and involuntary erections, which are ongoing but more noticeable with advancing puberty (see Chapter 7).

Motor Development

Changes in motor development plateau in adolescent females, while males continue to improve in skills requiring strength, power, and muscular endurance, which plateau later in adolescence to young adulthood. While overall motor development and abilities are attained, individual fine and gross motor skills vary widely, depending on the teen's body, interests, activity level, and opportunity. The tendency for motor and sports injury also varies, with female athletes having significant more knee injuries (anterior cruciate ligament [ACL]). Stress fractures are also more

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common among girls with the female athlete triad—a combination of inadequate caloric/nutrient intake, irregular menstrual periods, and bone loss (see Chapters 18 and 40).

Social, Emotional, and Cognitive Development

Adolescents are increasingly independent and self-sufficient, often in pursuit of rewarding experiences while avoiding painful ones; however, their decision-making abilities are still forming.[13] During the transition from childhood to adulthood, specific social, emotional, and cognitive milestones need to be assessed, as achievement helps the adolescent:

- Feel a sense of belonging in a valued group
- Acquire skills and master tasks that are important to the valued group
- Develop a sense of self-worth
- Develop at least one reliable relationship with another individual
- Demonstrate cognitive potential

Biophysical Influences

Although full sized, the adolescent brain continues to develop functional ability along with ongoing pruning and reinforcement, based on stimuli and the teen's activities and experiences. Dopaminergic and noradrenergic receptors become more active and neurotransmitter levels increase during adolescence. There is an increase of dopamine in the prefrontal cortex (PFC) and a decrease of dopamine in the *accumbens*, or "reward center."[14,15] The PFC, which coordinates executive functions of abstract thinking, reasoning, judgment, self-discipline, ethical behavior, personality, behavioral modification and emotions, experiences rapid growth. Emotional, social, and behavioral changes seen during adolescence are influenced by neural reactivity in the brain, particularly within the amygdala and PFC. Neuroimaging studies suggest the PFC also influences emotional regulation.[16] Gonadal hormones also influence pubertal brain development and behavioral responses, although these neurobiological mechanisms are not yet fully understood.[17,18]

The hypothalamic-pituitary-adrenal axis, one of the body's principal stress response systems, changes significantly during adolescence and makes the adolescent brain particularly vulnerable to stressors from adverse experiences, including abuse, maltreatment, racism, discrimination, mental illness, altered social interaction, and chronic illness.[19] In particular, adolescents exposed to adverse experiences are at increased risk of anxiety, depression, and other mental health disorders (see Chapters. 6 and 29).[19,20]

Other brain changes during this time may place adolescents at risk of substance abuse. Dopamine peaks in the frontal region and limbic system lead to enhanced neural sensitivity after reward exposure while they have lower inhibitory control. These two factors combine to increase the potential for adolescent risk-taking behavior.[21] Drugs and alcohol have a significant negative effect on the adolescent brain by damaging the neural circuitry in the "reward" or motivation pathways and shutting down the body's ability to respond to stimuli that normally generate pleasurable feelings. In essence, the drug becomes the only thing that leads to pleasurable feelings; a craving for the drug is "etched" into the brain and thus the individual becomes addicted. Neuroimaging studies in adolescents with alcohol use and/or abuse demonstrate decreased PFC volume, smaller temporal volumes, and decreased cortical thickness.[22] Brain changes resulting from exposure to alcohol, especially binge drinking, can also lead to loss of memory and cognitive function. Some longitudinal studies show adolescent alcohol use is associated with a decrease in frontal gray matter and poor white matter integrity.[21]

Simultaneous Changes

The central issues in adolescent development are summarized in Table 13.1. These issues cannot be understood, however, without an awareness of the simultaneous social, emotional, and cognitive changes.

Social Transitions. Transition from adolescence to adulthood is continuous and generally smooth. A commonly held myth is that adolescence is a period of "storm and stress" (a view originally described by G. Stanley Hall in 1908).[23] Although this characterization was not based on research, it continues to be widely believed. Adolescence is one of life's many transitional phases, and although some teens and families experience significant challenges during these years, others pass through this critical time with relative ease. One of the most significant social changes in late adolescence is gaining the right to vote, which is an external recognition of the transition to adulthood.

Changing Family Relationships. The biological, cognitive, and emotional changes experienced by adolescents require reworking of family relationships. Some degree of adolescent-parent adjustment or conflict is expected, but disruptive family conflict is not the norm. Everyday issues (e.g., clothes, hairstyles, household chores, curfew) are typical sources of conflict and ongoing negotiations between parent and teen are expected and essential. Inexperienced in negotiation, yet shifting to abstract thinking, adolescents can argue a point to excess. For parents, it may help to them that their teen's "arguing" is a way of practicing abstract thinking and that they should be delighted that their teen is at least engaging with them, although it may not seem like it (Box 13.1). When true turmoil exists, it usually represents individual and/or family pathology and is not simply "outgrown." Careful assessment and treatment are required. Behavior that results in negative consequences is especially worrisome. For example, fights over hair color may not be worthwhile because hair color will grow out, but delinquent or destructive behaviors need to be addressed.

Emotional Changes. Adolescent emotions are typically front and center, appearing more often and more intensely than those of adults. Pubertal hormonal changes contribute to this period of emotional changes, but as with the teen's physical growth and development, emotional changes can vary by individual, family norms, and sex, gender identity, and sexual orientation.

Testosterone increases can be associated with sad or anxious feelings, acting out, aggressive behavior, or interest in sexual activity. Males typically develop a positive self-image and mood and tend to be more satisfied with their body and body image than females. Depending on their size, they may want to gain or lose weight, which needs to be monitored, as disordered eating often begins in adolescence (see Chapter 29). Of note, male teens with adult physiques are given more leadership roles, are often more proficient or excel in sports, and are often perceived as more attractive, smarter, and more popular than their peers, and demonstrate higher self-esteem in early adolescence. In contrast, late-maturing boys, who are short and more childlike in appearance at 15 years or older, tend to show more personal and social maladjustment over the entire course of adolescence. They can be insecure, suggestible, and vulnerable to peer pressure and are often the subjects of bullying and seen as weak, immature, and less competent.

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TABLE 13.1 Central Issues in Early, Middle, and Late Adolescence

Variable	Early Adolescence (11–14 years)	Middle Adolescence (15–17 years)	Late Adolescence (18–21 years)
Sexual maturity rating (SMR)	1–2	3–5	5
Somatic	• Secondary sex characteristics • Rapid growth begins • Awkward appearance	• Height growth peaks • Body shape and composition change • Acne and odor • Menarche/spermarche	• Physically mature • Slower growth
Cognitive and moral	• Concrete operations • Unable to perceive long-term outcomes of current decision-making • Avoids punishment by following rules	• Emergence of abstract thought (formal operations) • May perceive future implications, but may not apply in decision-making • Sees the perspective of others	• Future-oriented with sense of perspective • idealism • Increased independent thinking
Self-concept/identity formation	• Preoccupied with changing body • Self-conscious about appearance and attractiveness	• Concern with attractiveness • Increasing introspection	• More stable body image • Attractiveness may still be of concern • Firmer self-identity
Family	• Increased need for privacy • Increased bid for independence	• Conflicts over control and independence • Struggle for acceptance of greater authority	• Emotional and physical separation from family • Increased autonomy
Peers	• Seeks same-sex peer affiliation to counter instability	• Intense peer group involvement • Preoccupation with peer culture • Peers provide behavioral example	• Peer group and values recede in importance • Intimacy/possible commitment takes precedence
Sexual	• Increased interest in sexual anatomy • Anxieties and questions about genital changes, size • Limited dating and intimacy	• Testing ability to attract partner • Initiation of relationships and sexual activity • Explores sexual identity	• Consolidation of sexual identity • Focus on intimacy and formation of stable relationships • Planning for future and commitment

From Kleigman RM, St. Geme JW, et al. *Nelson Textbook of Pediatrics*. Elsevier; 2020:1015.

In contrast to males, female teens can feel a diminished sense of attractiveness as their bodies mature and they begin menstruation. While both early-maturing boys and girls demonstrate more risky behaviors than those who are late maturing, girls are at greater risk as a result of romantic liaisons, as these early bloomers often get "bumped up" to an older group of peers and become the objects of sexual attention from older males. Of note, the body of early-maturing females may not match their emotional maturity. This difference influences decision-making and behavior, often placing them at increased risk for sexual activity, dating abuse, depressive symptoms, and antisocial behavior.[24,25]

Cognitive Changes. Adolescents enter what Piaget referred to as *formal operations*, a phase characterized by using propositional thinking and abstract reasoning. The principal difference between concrete and formal operations is the emerging ability to reason using verbal manipulation. In early adolescence, thinking is still very concrete, but most teens acquire increasing sophistication in abstract thought by 14 years of age. What makes things particularly volatile during adolescence is that different parts of the brain change at different times. For example, the frontal lobe, which controls executive function, is one of the last parts of the brain to fully mature. This lag can lead to lapses in judgment, an increase in risk-taking behavior, and mood swings.

As they learn to conceptualize past and future events and relate actions to consequences, adolescents begin to:

- Question values, often challenging familiar ones.
- Understand the concepts of good and evil and variations in human nature (e.g., not all authority figures are good people).
- Notice contradictions between what is said and what is done (e.g., when parents tell them not to smoke or drink even although the parents do; when parents tell them to wear their seat belts although the parents do not).
- Understand the significance of their existence within the construct of time (past, present, and future) and what they want or will be doing in the future (e.g., college, technical school, job, marriage, and family).

While neurologic changes underlie executive function, memory, social inhibition, intelligence, and cognitive development in adolescence, emerging evidence indicates that a combination of environmental influences (e.g., drugs, alcohol, and stress) and genetic susceptibility can have long-term effects on brain structure, cognitive ability, memory, and higher executive function.[13,26] Up

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• BOX 13.1 Tips for Parents

- Start with clear rules and expectations before children are teenagers. Work on good communication with children early and continue through adolescence. State expectations and future consequences before trouble occurs (e.g., identify curfew expectations before the dance, not when the teen comes home late).
- Be firm and consistent with follow through.
- Be flexible and allow teens to negotiate safety-related rules. Do not negotiate rules that are nonnegotiable.
- Fighting and arguing are often used by teens as they practice their developing reasoning skills. If parents are stressed or tired, they should disengage and walk away. Try not to take what teens say too personally.
- Teens want and need their parents to be involved, concerned, and ask questions. They just may not know it or know how to express it.
- Know who their friends are; call those parents from time to time. Compare household rules and risks (e.g., guns, smoking, drinking, supervision) if possible.
- Be involved with their schoolwork and at their school. Try to meet their teachers and stay in contact with them.
- Continue to involve teens in family activities, even when they no longer want to. Encouraging them to include friends helps.
- Keep your promises; it builds trust and respect.
- Model good behavior. Adolescents recognize the hypocrite of saying one thing and doing another.
- Don't forget that teens still need adult supervision at times.
- Keep communication lines open; start conversations. Adolescents sometimes want to talk to adults but are nervous or do not know how to bring up a topic.

to one-third of adolescents never achieve fully developed formal operational thinking, even as adults.

Communication

As with motor development, communication abilities are mature; however, communication skills are variable and particularly challenging for parents. Understanding how our basic information needs are affected by adolescent development can be helpful, especially for parents (Table 13.2).

Common Developmental Issues for Adolescents

Risk-Taking Behaviors

Adolescence is a time of developing autonomy, yet many adolescents encounter situations they are ill-prepared to navigate. Risk-taking behaviors continue to be a major contributor to morbidity and mortality for adolescents.[27] Risk-taking behaviors include drug, alcohol, and nicotine use, as well as risky sexual and physical actions, all of which can have significant long-term health consequences. Consequently, many adolescent healthcare visits are for treatment of preventable conditions or injuries that could have been avoided, especially if a risk behavior assessment had been conducted.[28] In the era of increased technological advances, risk-taking behaviors now include inappropriate use of social media (e.g., cyberbullying, "sexting") and unsafe use of mobile devices (e.g., texting while driving). It is a paradox of adolescence that developmental tasks (i.e., gaining independence, developing one's own values, becoming comfortable with one's body, and establishing meaningful relationships) may be achieved, albeit in negative ways, through risk-taking behavior. Adolescents in need of peer affiliation simultaneously strive for increased autonomy while exploring, experimenting, and otherwise pushing the limits of their personal experience—often in ways that put them at risk for health-compromising outcomes. It is important to recognize that risk-taking is important, as teens learn to test their sense of self and limits, understanding that risk-taking does not always equate to risky behaviors as many adolescents engage in risk-taking behaviors without negative outcomes.

Adolescents vary tremendously in their ability to think abstractly about the consequences of their behavior and/or actions, and often rationalize by thinking "it can't happen to me," especially when it comes to emotionally charged topics (e.g., peer acceptance, sex). An adolescent who drinks may be doing so to feel less inhibited, be accepted by peers and/or feel a sense of independence and maturity. Because the behavior meets important developmental needs, it may be difficult for the adolescent to look at it objectively or use their advancing cognitive skills. In addition, the effect of alcohol and drugs further limits the adolescent's reasoning ability.

Assessment

Environmental factors also influence adolescents' decisions to take risks, including lack of sleep, negative or deviant behavior role models, constructive relationships and support (or their absence), poverty, or a history of or ongoing adversity (e.g., ACEs). At the same time, protective factors can counter these factors and help adolescents make healthier lifestyle choices. It is important for adolescents to have active parental influence during these critical years, as safe, stable, and nurturing relationships buffer adversity and build resilience (see Chapter 6).[29] Adolescents with multiple risk factors and few protective factors are more likely to engage in risky behaviors. These adolescents need prompt attention and ongoing assessment. Conversely, adolescents who do well or are flourishing, despite multiple risk factors, should be acknowledged and applauded, calling attention to the protective factors in their lives.

While the PCP should assess for risky behavior, equal attention should be given to the assessment of protective factors. Examples of protective factors are[11]:

- High self-esteem
- Parental engagement and family connectedness
- Relationships with caring adults
- Community engagement (e.g., school, religious institutions, volunteering)
- Sense of future
- Academic success
- Strong executive functioning and coping skills
- Access to recreation

All adolescents should be assessed for their level of risk-taking behavior. The PCP's approach to discussing sensitive issues should include ensuring confidentiality, providing privacy, using constructive communication strategies, and establishing rapport. The HEEADSSS technique is a method of assessing risk behavior. Areas for assessment include *H*ome, *E*ducation and employment, *E*ating, *A*ctivities, *D*rugs, *S*exuality, *S*uicide/depression, and *S*afety (Box 13.2).[30] PCPs also need to be alert for developmental red flags because inconsistencies and delays in development may contribute to negative behavior (Table 13.3).

The following are considered risky behaviors:

- Tobacco or nicotine use
- Substance use or abuse, including alcohol
- Poor academic performance

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TABLE 13.2 **Basic Information Needs**

Basic Information Needs	As the Adolescent Ventures out Into the Larger World
The Need **to Know** • Being adequately informed and assured	• Parents have an increased need to know about what is happening in their child's life. • Adolescents have a greater need to know not just about the world but that parents will be there with support should they have need.
The Need **to be Known** • Being adequately understood and recognized	• Parents have an increased need for their rules and restraints to be understood. • Adolescents have more need for parents to recognize their readiness to make more of their own decisions.
The Need **Not to Know** • Being spared information that feels disturbing or excessive	• Parents have a need not to know about all the misadventures and misfortunes that happen to other young people who their teenager knows of or personally knows. • Adolescents (with enough fears already) need not to know about the host of worries that are constantly preying on parental minds.
The Need **Not to be Known** • The need for concealment and privacy	• Parents do not want the adolescent to know how anxious they are about the risks of their increasing worldly freedoms. • Adolescents protect their freedom by becoming more selective about what personal information they choose to disclose to parents.

Modified from Pickhardt CE. How Communication becomes more complicated in adolescence, 2011. https://www.psychologytoday.com/us/blog/surviving-your-childs-adolescence/201108/how-communication-becomes-more-complicated-in#:~:text=With%20onset%20of%20adolescence%20%28around%20ages%209%20-,to%20create%20more%20separation%2C%20usually%20wants%20significantly%20less

- Risky sexual activity (e.g., multiple partners, unprotected sexual intercourse)
- Drinking and driving
- Body dysmorphia or eating disorders (see Chapter 29)
- Behaviors that result in injury or violence
- Delinquency or involvement with gangs
- Violence-related behavior (e.g., carrying weapons, threatening violence)
- Mental or psychiatric disorders
- Signs or symptoms of physical, mental, sexual, or emotional abuse
- Poor nutrition and physical inactivity
- Inappropriate use of social media or technology devices

The consequences of these risky behaviors can include addiction, school failure, pregnancy, sexually transmitted infections (STIs), injuries, conviction for driving under the influence, incarceration, and even death. Of note, half of all STI cases in the United States occur in 15- to 24-year-olds.[31]

• BOX 13.2 **HEEADSSS Assessment: Related Questions**

The HEEADSSS assessment focuses on adolescent relationships with others, functioning at school and work, self-efficacy, resilience, and independent decision-making.

Home: Who lives with you? How are your relationships with the other people with whom you live? Have there been any changes at home? Do you feel safe at home?

Education/employment: What do you like and dislike about school? How is school going? How are your grades? Have you ever had trouble at school? Do you work? How many hours do you work? Where do you work? Do you have friends at school? At work?

Eating: Are you comfortable with your body? Are you interested in gaining or losing weight? How do you manage your weight? Tell me about how often you exercise. Tell me about what you normally eat every day.

Activities: What do you do for fun? What types of things do you like to do with your friends? What types of things do you like to do with your family? Do you play sports? Are you in clubs or other organizations? How much time do you watch TV? Use the computer? Text? Listen to music? What types of activities do you like to do online? On your phone?

Drugs: Do you, anyone in your family, or your friends use drugs, tobacco, or alcohol? Have you ever used performance-enhancing drugs?

Sexuality: Do you date? Have you ever had a romantic relationship? What do you consider to be sex? Have you ever had sex? How many partners have you had? Are you interested in males or females or both? Have you ever had someone hurt or threaten you sexually? Do you use birth control or condoms? How often?

Suicide/depression: Do you ever feel like you are all alone or no one cares? Do you feel sad most of the time? Have you ever thought of hurting yourself? Do you ever need to use drugs (alcohol, tobacco, street drugs) to make you feel better? Have you lost interest in being with friends or doing things you previously liked to do?

Safety: Have you ever been hurt by or threatened by someone (who)? Have you ever been seriously injured? Do you use sports safety equipment? Do you use seat belts? Do you text/talk when you drive? Do you ever feel unsafe (where)? Have you ever been bullied? Have you ever met (or do you plan on meeting) someone you first met online?

Management

The PCP's role is to give the adolescent information and guidance to facilitate the teen making the best-informed decisions possible. PCPs can advocate for adolescents, involve their families, communities, and schools, and continue to assess whether they have at least one adult in their lives who cares for them. Consider focused interventions with at-risk adolescents when their behavior interferes with attainment of developmental tasks or threatens their health, safety, and/or wellbeing. Adolescents who pierce their noses, shave half of their hair, and opt to spend evenings with friends rather than family may be irritating to parents, but these behaviors are often a reflection of teens establishing their autonomy and identity, as well as learning about relationships outside of their families. Tattooing and body piercing are concerning, especially if they are associated with high-risk behavior(s), and body modification should be differentiated from nonsuicidal self-injury (NSSI).[32]

High-risk teens require numerous services. PCPs need to know their state laws regarding adolescent health issues and decision-making ability, how to access community resources, and how to engage other professionals, as needed. The following list identifies a sample of basic services that at-risk teenagers may need:

- Food resources for teen parents and their children
- Transportation vouchers

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TABLE 13.3 **Developmental Red Flags: Adolescence**

Age	Physical and Sexual Development	Social-Emotional Development	Cognitive Development
All phases of adolescence	*Physical development:* • Poor vision close or distant • Kyphosis or scoliosis • Poor nutrition, poor oral health, caries, malocclusion • Loss of appetite/underweight • Chronic disease, such as heart disease, hypertension, dyslipidemia, diabetes, or a family member with a chronic or lifelong illness • No physical activity; overweight • Sleep disturbance	• Substance abuse; blackouts • Permissive or authoritarian parental style • No participation in home chores • History of family violence • School fights • No close/best friend • No identified peer group • Friends or siblings in gangs • Cruelty to animals • Sexual orientation worries • Pervasive sad mood, feelings of hopelessness, suicidal thoughts or gestures, history of previous suicide attempt • Flattened affect without expressions of joy, sorrow, or excitement • Excessive worrying or rumination • Negative self-concept/worth; describes self as "ugly" or "fat" • Dieting despite normal body size and shape	• Low IQ • Behind in grade or failing classes • Chronic absenteeism or class skipping • Attention problems • Lack of organizational skills for homework • Disruptive behavior • Lack of impulse control • Unable to control own behavior (e.g., anger, impulsivity)
Early adolescence (11–14 years)	• Less than SMR stage 2 • (Female) Short stature/absence of height spurt • Early bloomer • Early sexual experimentation	*Sexuality:* • Fears about emerging sexuality/sexual orientation *Self-concept:* • Does not fantasize or dream about adult career	• Unable to identify feelings
Middle adolescence (15–17 years)	• Kyphosis or scoliosis • Less than SMR stage 4 • (Male) Short stature/absence of height spurt • Male muscular growth without testicular maturation • Male persistent gynecomastia and acne • Female primary or secondary amenorrhea • Risky sexual activity, including unprotected sexual intercourse and multiple sexual partners	• Drinking and driving • Excessively oppositional, defiant with all authority • Abusive dating relationships • Sexual orientation worries	• Unable to differentiate emotional states from physical states • Poor judgment
Late adolescence (18–21 years)	• Less than SMR stage 4 or 5 • Risky sexual activity, including unprotected sexual intercourse and multiple sexual partners	• No life goals • Does not fantasize or dream about adult career • Drinking and driving • Lacks intimate relationships • Unable to separate from peer groups • Unable to separate from parents • Unable to keep a job • Sexual orientation worries	• High school dropout • Persistent egocentrism • Unable to reason or plan based on future and abstract concepts • Consistent/Pattern of poor judgment • Chronic healthcare seeking for psychosomatic complaints

IQ, Intelligence quotient; *SMR*, sexual maturity rating.

- Temporary shelter
- Counseling and mental health services
- Foster care services for teen parents and their children
- Local medical and social work services
- Local juvenile justice system and protective services
- Drug rehabilitation programs specifically designed for adolescents
- Alternative school and vocational education programs
- Sports, fitness, and community activities, including after-school programs
- Community support programs (e.g., Big Brothers/Big Sisters)

Tobacco Use

Tobacco use is a leading cause of preventable death, and adults who smoke often report smoking before the age 18 years. Many

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adolescents experiment with tobacco use but may stop after a short period before becoming addicted to nicotine. Tobacco dependence (addiction) varies from one individual to another and can appear at any time after initiating tobacco use, so prevention and early intervention are essential. As previously discussed, the adolescent brain is particularly susceptible to the influence of substances (like nicotine), and there is a resulting higher rate of dependence in teenagers than in adults.

Despite decreases in traditional cigarette use, the rates of alternative tobacco product (ATP) use, including hookahs and electronic nicotine delivery systems (ENDS) such as electronic cigarettes (e-cigarettes), continue to increase. E-cigarettes are now the most commonly used tobacco product among youth,[33] with appealing flavors and small and inconspicuous devices. The National Youth Tobacco Survey reported 11.3% of high school students and 2.8% of middle school students currently use e-cigarette products.[33] E-cigarette use is highest in males and Hispanic and non-Hispanic White youth. The US Food and Drug Administration (FDA) issued guidance to address the increased use of ENDS, with strategies to enforce the ban on selling ENDS to minors.[34] According to the 50th Anniversary Surgeon General's Report (https://www.cdc.gov/tobacco/sgr/50th-anniversary/index.htm), over 5 million youth will experience premature death from smoking-related illnesses. E-cigarette use is also associated with the use of alcohol, marijuana, and other risky behaviors.[35]

Assessment

Annual health supervision visits and/or sports/work participation exams serve as an opportunity to screen for substance use (see AAP Periodicity table).[36] Both the Substance Abuse and Mental Health Services Administration and the AAP recommend that PCPs not only screen for substance use, but also use a brief intervention and, if indicated, refer to treatment. One approach is ACT: *A*sk about tobacco use at each visit, *C*ounsel on smoking cessation if screen is positive, and *T*reat by linking youth with behavioral health specialists if indicated.[37] Ask adolescents whether they (or their friends) smoke or use other forms of tobacco and the specific types of use (e-cigarettes, hookahs) at all visits.

Management

The PCP's primary goal is to keep teens from starting use; however, in those teens who do use, the goal is cessation (Table 13.4). The US Public Health Service promotes the use of cognitive-behavioral strategies, motivational interviewing, and examining the effects of social influences on smoking. Interventions need to be tailored to the adolescent's context and readiness to change. One strategy is to provide the adolescent with a quit line referral number such as 800-QUIT-NOW and 800-44U-QUIT. These telephone-based interventions have been shown to help with tobacco cessation.[38] Smokefree is a text-based service where one can text QUIT to IQUIT (47848).[39]

Education should specifically address the avoidance of ATPs and ENDS, as many adolescents view these products as "safer" than traditional cigarettes.[35] Factors associated with adolescent smoking cessation include enforcing public policy that bans smoking in educational and recreational settings, enhancing self-efficacy, and developing plans to manage cravings as they quit smoking.[40] Another important tobacco exposure source is parental tobacco use. Parental tobacco use increases the risk of their child using and becoming tobacco dependent. Anticipatory guidance should address adverse effects of secondhand smoke on the adolescent's health. Evidence shows that even short messages can improve smoking cessation rates in families. Pharmacologic treatments can be offered for those with moderate to severe tobacco dependence, although with caution, as these agents are only FDA approved for use in adults.[41]

TABLE 13.4 **Tobacco Use Cessation Strategies for Adolescents: Primary and Secondary Prevention**

Primary Prevention	Secondary Prevention
• Provide multimedia, multisite health information, not limited to schools • Use Social Norms Theory to encourage adolescent to forgo tobacco use • Emphasize skills to avoid peer pressure • Focus on adolescents' developmental need to belong to a social group	• Ask at every visit whether adolescent or friends use tobacco • Inform adolescent of health risks of tobacco use and how one becomes addicted to nicotine; emphasize it is easier to stop early • Use brief motivational interviewing to spark interest in tobacco cessation • Determine realistic stop-use date • Help adolescent identify barriers to stopping and ways to overcome those barriers • Provide information about self-help and support groups; encourage adolescent to try to stop smoking with a friend • Provide nicotine pharmacologic cessation therapy, where appropriate • Schedule follow-up visits to monitor progress; reinforce positive efforts • Assess parents' tobacco use patterns; provide information/ support to stop use

Nonsuicidal Self-Injurious Behaviors

NSSI is a group of repetitive behaviors with the intent of causing physical harm to oneself but not with the intent of ending one's own life.[42] Repetition is the key as signs and symptoms must have occurred at least five times within the past year and be associated with at least two of the following[43]:

- Previous negative emotions
- Preoccupation with and a repetitive desire to engage in the activity
- Feelings of relief from negative emotions or a sensation of positive feelings with activity
- Impaired interpersonal relationships.

NSSI behaviors vary widely and include cutting (the most common mechanism), scraping, hitting, burning or ripping of skin, subdermal tissue, or hair; hindering wound healing (does not include scab picking); and head banging.[32,44] Piercings and tattoos are not usually included, as most are seen as socially acceptable.[32] The common factor among NSSI is that they are used to relieve distress, anger, stress, and other negative emotions. Research demonstrates engaging in NSSI causes decrease in negative affect and arousal and an increase in positive emotions. NSSI typically begins in mid- to late adolescence and declines in early adulthood, but at least 20% of those with NSSI behavior recall they began

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before age 12 years.[43,45] Prevalence rates vary widely across studies, from 2% to 49%; however, rates potentially increased during the COVID-19 pandemic.[46–48]

NSSI is not suicidal behavior; however, individuals who engage in NSSI are more likely to attempt suicide or have an eating disorder, an abuse or trauma history, a mood disorder, or psychological distress than those in the general population and should be assessed for suicide risk. As many as 70% of those with a history of NSSI have had at least one prior suicide attempt. Characteristics of NSSI that are associated with increased risk of suicidality include more frequent NSSI behaviors, NSSI occurring over a longer period, multiple methods of NSSI, more severe methods used (such as burning), history of abuse, and coexisting psychiatric disorders (borderline personality disorder, posttraumatic stress disorder).[44] Although NSSI is a component of borderline personality disorder, it can be present in those without borderline personality disorder.[32,44,47]

Assessment

A mental health assessment is needed when adolescents present with suspected NSSI. History should focus on the type(s) of self-injury, a description of the frequency of these behaviors, and what responses/benefits the adolescent gets by doing self-injury (e.g., The Non-Suicidal Self-Injury Assessment Tool [NSSI-AT]: http://www.selfinjury.bctr.cornell.edu/perch/resources/fnssi.pdf). Although self-injuries decrease emotional pain, they can also result in guilt. Therefore adolescents who engage in NSSI often hide evidence of their activities, mask physical evidence, and will deny or not disclose their NSSI behaviors, thus making diagnosis difficult. Suspicion should be raised if adolescents present with hoodies or heavy clothing on hot days, or when there is resistance to a thorough examination. The most common locations for NSSI injuries are the arms, legs, and front of the torso. There may be scratches or cuts in various stages of healing or that appear to be in patterns or form words. Traction alopecia may be present. The presence of any wounds should be recognized as a call for help. Adolescents should also be assessed for suicidality because NSSI can be a predictive factor for future suicide attempts (see Chapter 29). Further, given the association of NSSI with abuse (see Chapter 22), these adolescents should be assessed for physical and emotional signs of maltreatment.

Management

Those who self-injure will often accept help during acute phases but lose motivation for help when symptoms are not acute. Appropriate therapeutic interventions include cognitive behavioral, dialectical behavioral, and family therapy. The best therapeutic response is usually contingent on the self-injurer feeling emotions, with the goal being the development of positive emotional coping skills. Prompt referral to a mental health professional is needed if symptoms of psychosis or suicide ideation are present[44]; however, not all adolescents with NSSI need a psychiatric referral. Those who are experimenting with self-injury, or who engaged in NSSI because of peer pressure and show no other signs of mental disorder may not require immediate intervention but do need close follow-up.

Technology and Social Media Use

Technology can facilitate connectivity and social interaction, and social media use can be a positive influence when used appropriately. It is no surprise that adolescents spend up to 9 hours a day on different screens, and approximately 66% of adolescents own a smartphone and actively use at least one social media site.[49] Although there are benefits of social media and technology devices (e.g., developing friendships, increased self-esteem, social support), there are also hazards.[50] Cyberbullying includes having negative information reported about them, having personal information made public online; being filmed without consent and the video then being posted online; and/or receiving unwanted emails, messages, or texts. Peer cybervictimization affects millions of US adolescents and increases the risk of substance abuse, depression, and suicidality.[51,52]

Assessment

Parents and PCPs need to have open discussions with adolescents regarding their social media use to identify risky social media usage including:

- Cyberbullying and harassment
- Sexting (e.g., sending nude or provocative photos, and/or sexual messages)
- Depression and social withdrawal
- Problematic use (e.g., obsessive social media use, including avoiding interactions with others to engage online, getting in trouble because of social media use)
- Meeting/engaging with strangers through online profiles
- Using mobile devices while driving

Management

There is often a technology gap between adolescents who have grown up with computers, tablets, and smartphones, and adults (including PCPs) who began technology use later in life. It is common for teens to state that adults do not understand how "everyone" uses social media and how not being able to may have a negative social impact. PCPs can remind adolescents that any posts can, and possibly will be, shared with others and that digital footprints can be accessed years later and negatively impact their future (e.g., university admission, employment). Many adolescents do not realize that the possession of nude or suggestive photos can be considered child pornography, although enforcement of this varies from state to state.[53,54] One rule to share with teens is not to post when they are emotionally upset (e.g., angry, sad, scared), as spur-of-the-moment actions often lead to bad outcomes in the short and long term. Further, while many online profiles are real, there are also some that are complete fabrications, designed to initiate a meeting with others under false pretenses.

Parents need to have frequent, open conversations with adolescents about internet and social media use. The AAP (2018) developed an online family media plan tool that helps families decide how to establish guidelines and set limits on media (www.healthychildren.org/English/media/Pages/default.aspx). In addition, parents should address the issue of devices and distraction, especially the dangers of using mobile devices while driving. One study examining adolescents and motor vehicle crashes found that distractions (using a cell phone, looking for something in the vehicle, grooming, etc.) were a contributing factor almost 60% of the time. Young drivers make up a substantial portion of those involved in fatal car crashes, and 1 in 10 were distracted at the time of the crash.[55,56]

Finally, PCPs and parents need to highlight the negative impact of media devices on sleep. Nearly one-third of adolescents wake up during the night to check their devices, and screen use before sleep interferes with sleep latency and quality.[57] Encourage parents to establish a central location outside of the teen's bedroom to charge and store devices overnight. Parents and PCPs also need

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to highlight the benefits of adequate sleep, the negative consequences of poor sleep, and how to establish nighttime routines that promote healthy sleep, including avoiding electronic media use before sleep.

Health Supervision and Surveillance

General Guidelines

Primary care visits with adolescents are grounded in good interviewing techniques, which include demonstrating respect, establishing parameters, using appropriate body language, active listening, and communication techniques, and working with the adolescent to develop a realistic, individualized treatment plan. Each encounter needs to underscore that the PCP and teen are a team, that the teen's concerns are important, that no judgments will be made, and that the primary focus is working together to achieve the healthiest outcome possible. It is important to be transparent with the teen, sharing mandated reporting and/or information sharing requirements.

Preserving confidentiality is essential. Adolescents should be reassured that the provider will not share information with their parent or caregiver (*general* confidentiality) unless the adolescent agrees, or unless the health of the child or others may be compromised (e.g., threat of potential suicide, violence, evidence of an eating disorder). Providers must inform the teenager that there are limits to confidentiality (*limited* confidentiality). As mandatory reporters, PCPs are required by law to report information that puts the teen or others in danger (e.g., abuse, homicidal ideation). These mandates vary by state (e.g., some states require reporting teen sexual activity, even if consensual, if an age difference of 3 or more years exists between partners). This proactive approach supports the adolescent while also offering protection from the parent who may be abusive or unsafe. Sharing this approach upfront with the teen and parent not only sets the stage for trust, but also reduces the problem of parents who are upset if they feel they are being denied information.

Establishing trust is paramount, as teens are more likely to disclose sensitive and relevant details about their health concerns, behaviors, and risks. The way confidential care is provided may influence healthcare utilization for the rest of the patient's life.[7] A questionnaire or checklist may be an effective way to collect information for teenagers who are hesitant to discuss sensitive issues. Questionnaires used to identify adolescent strengths were created by the Search Institute (see Chapter 6) and have been used by communities to enhance adolescent self-concept, whereas programs like the Rapid Assessment for Adolescent Preventative Services (RAAPS) help PCPs identify risky adolescent behaviors (see Additional Resources).

Assessment and Screening

Physical Development. Adolescents should have height, weight, body mass index (BMI), and growth trajectory documented at each health maintenance visit. The SMR should be recorded to evaluate progression of pubertal changes. Assess testicular growth by palpation and sizing using a standardized orchidometer. Self-assessment is generally reliable, and adolescent males can be asked to evaluate their own development level if provided with standards against which to compare themselves. Varicocele, or enlarged veins palpable in the scrotum, may develop at sexual maturity and are not cause for alarm unless a discrepancy in testicular size is noted on examination. Gynecomastia in boys should be noted, especially beyond SMR 3. Scoliosis may develop rapidly during puberty, and assessment should be done annually with careful attention to SMRs and PHV. For example, a female with mild scoliosis, SMR 4, and who had menses 2 years ago is less cause for concern than a female with mild scoliosis, SMR 2 who has not had menarche, as this teen may need close monitoring throughout the growth spurt. Each teen should be asked how they feel about their own physical growth and development. Dissatisfaction with body appearance might warrant further probing to elicit unhealthy behavior (e.g., binging and purging, steroid use; see Chapter 29 for information about eating disorders). The thyroid gland should be palpated, with special attention to the presence of a Delphian node, as autoimmune thyroid disorders (e.g., Hashimoto thyroiditis) can occur in this age group.

Social and Emotional Development. Key areas to assess in social and emotional development include adolescents' emerging independence from family, relationships with peers, and goals for the future, especially as they enter late adolescence. Adolescents need to be interviewed about school, family, and peer relationships; exposure to violence, abuse, or weapons; mental health issues, such as mood, depression, anger problems, or suicidal ideation; sexuality, sexual activity, and sexual orientation; safety (e.g., use of seat belts, driving, drowning); and involvement in risky behaviors, such as tobacco, alcohol, prescription or street drug use; and eating disorders.

Cognitive Development. Cognitive assessment includes the following: questions about school attendance, school performance, and educational or career goals. School connectedness is a significant predictor of adolescent wellbeing; however, the extent to which a teen connects to school depends on characteristics of both the teen and the school. A teen's exposure to a school-based health center is also associated with school connectedness.[58] School connectedness was an important factor with remote learning during the COVID-19 pandemic, as students with more connections to others at school had lower rates of poor mental health outcomes, such as hopelessness and suicidality.[59] Chronic absenteeism, class skipping, and other types of school avoidance indicate a problem that may be related to cognitive ability and should be assessed in depth. Objective assessment of cognitive development, as with school-age children, requires formal psychological testing, which is best done, if needed, through schools. Children who are behind a grade have a much greater risk of dropping out of school, thus leading some to consider school failure as a form of adolescent failure to thrive.

Parent Assessment. Parents of teens need advice, support, and encouragement. Characteristic adolescent mood swings can strain family relationships and lead to arguments. Parents with balanced approaches that include unconditional love, clear boundaries, and consistent discipline are more likely to have adolescents with less depression, less risk-taking, and better academic success than authoritarian parents. It is important to assess parental concerns about their adolescent's health at each visit because their concerns provide additional insight into the teen's physical, socioemotional, and mental health, as well as a glimpse into the family functioning and the parent-teen dynamics. If problems exist in the parent's view, or there is a discrepancy between the parent and teen, or a potential conflict emerges in the interviews, the PCP can facilitate mediation and/or intervention, as needed.

Anticipatory Guidance

Anticipatory guidance should be individualized to help the adolescent understand, respond to, and take responsibility for their own behavior and development (Table 13.5). Separate discussions

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TABLE 13.5 Adolescent Area of Development and Related Anticipatory Guidance

Area of Development	Anticipatory Guidance
Physical	
Experience rapid growth and development in transition from prepubescence to sexual maturity	• Teach about emerging body functions (e.g., menstruation, nocturnal emissions, unexpected erections) for both sexes/genders • Teach about the timing and descriptions of primary and secondary sexual characteristics of both genders (e.g., changes in breasts, genitals, and hair) • Discuss masturbation • Discuss sexual orientation/feelings
Reach adult parameters of height/physical growth by late adolescence	• Provide counseling regarding safety and unintentional injuries • Teach and encourage correct and consistent use of helmets, seat belts, and proper sports equipment • Emphasize safety and responsibility regarding access to/use of guns and other weapons
Become comfortable with one's body	• Offer reassurance that physical changes are normal; anticipate what they should expect; listen to concerns; encourage physical activity/exercise, sports participation, and body fitness; encourage healthy nutrition and sleep patterns
Cognitive	
Move from concrete thinking to formal operations and the ability to reason abstractly	• Emphasize value of successful school completion • Discuss how to balance academic responsibilities with other activities • Explain how changes in cognitive abilities may contribute to "overthinking" or a sense of confusion; encourage teen to do "reality checks" with a trusted adult • Engage adolescent in conversation, explain procedures, and answer questions; listen
Develop personal value system and moral integrity	• Encourage discussion of what the adolescent believes is important and finds valuable • Help the adolescent develop skills in conflict resolution and prevention • Discuss how learning to identify feelings is the first step in understanding how feelings influence mental and physical processes • Discuss respect for rights, needs, and opinions of others; teach that maturation involves understanding and appreciating multicultural differences
Move from dependence on others to self for risk reduction	• Provide information about how to manage peer pressure to engage in risky behavior • Discuss injury prevention strategies at home, work, and school; emphasize dangers of weapons
Social and Emotional	
Establish independence from parents	• Explain to parents an adolescent's need for privacy and that not joining in all family activities is not a sign of rejection of the family; some privacy within the home should be expected/provided
Develop sense of self-identity	• Encourage adolescents to take responsibility for their own health care • Encourage adolescents to take on new challenges; discuss future plans (e.g., school, work, and family) • Help adolescents identify their own personal strengths and joys

Create new relationships with peers and adults	• Discuss importance of activities with peers; identify healthy ways to be part of a group
	• Provide counseling on:
	  • Avoiding gang involvement
	  • Bullying, which may be physical, emotional, or sexual
	  • Preventing the use of drugs, cigarettes, and alcohol
	  • Stopping substance use for those who are using
	• Discuss the notion that maturation includes increased independence and increased responsibility at home, school, and in the community
	• Encourage participation in community activities
	• Provide information and opportunity to discuss questions regarding sexuality, sexual responsibilities, and protection from unintended pregnancy and STIs
	• Discuss dating; emphasize that healthy relationships are based on mutual respect and address how to prevent/report date rape or abusive relationships
	• Advocate for safe social media usage/sharing

STI, Sexually transmitted infection.

need to be conducted with parents to help them understand and support their teen's maturation and need for independence. In these discussions, the PCP should clarify which values and expectations parents have for their teen and how the teen perceives those expectations.

In the following sections, specific discussion points are outlined in each of the adolescent phases. While they can be incorporated into the health supervision visit, they are not all-inclusive, and they often cannot be covered exhaustively at each visit. Ideas for assessment and management of specific problems that emerge

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from these discussions can be found in other chapters (e.g., see Chapter 7—Sexuality Issues).

Early Adolescence (11–14 Years)

Early adolescence is often the most difficult adolescent adjustment period. Rapid physical changes occur simultaneously with changes in all parts of the adolescent's life, yet their cognitive skills may not keep pace with physical changes and their emotions may interfere with or overwhelm their ability to understand and cope. The "early" adolescent is often confused and even frightened by the rate and breadth of change being experienced. Accordingly, they can be difficult to be around; yet, because of this "difficulty," the response(s) from parents and other adults may be exactly the opposite of the support, caring, and understanding they desperately need.

Physical Development

The onset and rate of physical changes in early adolescence varies widely, with some teens exiting early adolescence (at approximately14 years) still at SMR 2, while others are at SMR 4 and almost their adult height. Close attention to the onset and sequence of changes is a priority for the PCP, while simultaneously monitoring the teen's response to the changes.

Social and Emotional Development

The early adolescent is beginning to renegotiate relationships with parents, other significant adults, and peers. While they may not yet be a part of an adolescent subculture, they can appear to be anti-adult and often find themselves in between the two, feeling lonely. They begin to prefer friends over family, and often report their parents to be an embarrassment. This social behavior pattern is a step toward maturity and independence, as one of the ways of demonstrating independence is to challenge parental authority. Parents may report the early adolescent as more argumentative and disobedient, refusing to do chores, and wanting to renegotiate rules (e.g., curfews, allowance, household responsibilities).

Wide mood swings are characteristically present in the early adolescent. They may shift from euphoria to sadness within a matter of minutes, characterized by their transient nature, commonly measured in hours or days. These emotional fluctuations need to be distinguished from the unremitting, long-standing mood and behavior changes of serious depressive disorders. Further, as they adjust to the physical changes of puberty, they may begin to spend more time in front of the mirror combing their hair, checking their skin, and putting on makeup. Clothes and appearance become more important for most teens, including those with a developmental delay or disability. The onset of secondary sex characteristics typically increases anxieties about menstruation, nocturnal emissions, uncontrolled erections, masturbation, and breast or penis size. This is an opportune time for the PCP to dispel myths (e.g., masturbation causes blindness or acne) and provide focused anticipatory guidance (e.g., a premenarcheal girl often has vaginal leukorrhea, a clear, mucoid discharge); however, they may find these conversations awkward at first. These discussions can be challenging, as early adolescents have a desire for greater privacy, often spending more time in their room alone listening to music, using social media, texting, or talking on the phone. They may magnify their problems and believe that no one could possibly understand what they are feeling.

The development of new types of friendships appears, as a greater number of opportunities become possible. Same-sex friendships occur, usually with one best friend. These strong friendships may lead to fleeting same-sex experimentation as sexual feelings emerge and adolescents develop their sexual identity. Contact with the opposite sex is usually in groups (e.g., middle school dances with boys on one side of the gym and girls on the opposite side). Other typical sexual behaviors of the early adolescent include masturbating, telling "dirty" jokes, making lewd remarks to others, demonstrating interest in watching explicit sexual scenes in the media, or looking at images of nude individuals. Sexual experimentation may vary greatly, depending on the adolescent's subculture and development. For example, by this age some teenagers have already experienced sexual intercourse or pregnancy, whereas others have not even held hands.

Cognitive Development

As their thinking abilities develop, teens daydream frequently. Parents and teachers need to be reminded that daydreaming is needed cognitive work (and space) for adolescents; it is where they work on and through their identities as well as the changes in and around them. Early adolescents begin developing their own value system, independent from their family of origin. They may try value systems other than the one that they learned from their family, often leaving family members befuddled or even threatened. As they develop, give early adolescents the opportunity to use their growing reasoning skills to actively problem solve, explore values, and examine the principles on which they make decisions. Early adolescents set idealistic goals that change frequently. One day they want to be an engineer and the next day a pilot or a parent who stays home to raise children. Some adolescents at this age experience a drop or rise in academic performance, depending on their current focus.

Health Supervision and Screening

Annual health supervision visits are recommended. Critical components of the visit include growth and developmental surveillance; assessing social and academic progress, including quality of interpersonal relationships and school performance; identifying emotional wellness (e.g., mood, mental health, sexuality); and risk reduction, including injury prevention, substance use prevention, and healthy sexuality. Immunizations for human papillomavirus (HPV), diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP), influenza, hepatitis A, and meningococcal meningitis are recommended. Blood pressure monitoring should continue and serum lipoprotein analysis should be done if not done earlier in childhood.

Anticipatory Guidance

Anticipatory guidance for the early adolescent focuses on explaining the rapid changes that are occurring; helping the adolescent in the early process of developing self-concept, autonomy, and independence; and providing reassurance that they are "normal." The following should be specifically discussed:

- Physical changes to expect as puberty progresses
- How the adolescent can best manage the rapid physical changes (e.g., engage in physical activity or sports; focus on injury prevention [e.g., bike helmets]; identify strategies to deal with beginning menstruation while at school; eat a well-balanced diet; get enough sleep)
- Nutritional needs: Increased iron and calcium intake is needed after menarche and during periods of rapid growth.
- Coping strategies the teen and family can use during stressful times and building resilience where needed
- What it means to be sexually responsible, both physically and emotionally; can include abstinence counseling or safe-sex practices/education
- Transition to adult health care: Initiate conversations regarding transitioning to adult health care between 12 and 14 years of

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age, especially with teens with special healthcare needs. By age 14 to 15 years, a transition plan should be developed with the adolescent and parent.[60,61]

Middle Adolescence (15–17 Years)

Middle adolescence is characterized by continued changes in physical, cognitive, and socioemotional development. Relationships continue to evolve, peers become increasingly influential, and awareness of one's (and others) appearance is accentuated. With increasing cognitive abilities, middle adolescence often provides opportunities to evaluate and develop the skills necessary for adulthood; however, it is also the time when teens are at highest risk for developing mental health disorders, and sexual and risky behavior experimentation begins.[11]

Physical Development

For most teens, especially females, physical development nears completion. Middle adolescents typically have less concerns about body changes, as they have been dealing with them, but have increased interest in making themselves more "attractive," which can be a relative term. Teens spend more time with hair, clothes, and, for some, diet and focused physical activities (e.g., weightlifting). Middle adolescents often try to defy the limits of their bodies, and many have periods of excessive physical activity followed by periods of lethargy.

Social and Emotional Development

School and extracurricular activities outside the family are often the focus of the middle adolescent's life. Peer group involvement is intense and includes the establishment of a dress code, communication style, and code of conduct. Middle adolescents tend to be more non-adult than anti-adult. The need for peer contact is important for all middle adolescents; however, it is especially important for teens with developmental disabilities and/or chronic conditions, although it can be challenging (e.g., due to parental overprotectiveness, social skills deficits, physical constraints). Sexual drive emerges, with physical urges often preceding emotional maturity. While most begin to explore their ability to attract a partner of the opposite gender, same gender, or gender and sexual minority partner, there is often increased peer (and societal) pressure to experiment with sex. Adolescents report that parents are the main influence on the adolescent's decision about sexual behaviors,[11] something parents need to be reminded of, especially as parent/teen conflicts peak over issues such as curfew, allowance, going to parties or movies, and dating. For both the teen and parent, rules and expectations must be clear and consistent.

Cognitive Development

Intellectual sophistication and creativity increase in middle adolescence. Practicing reasoning, logic, and decision-making strengthens the adolescent's ability to establish healthy evaluative and decision-making skills. They may demonstrate increased concern with neighborhood and societal issues, such as racism, poverty, justice, peace, and the environment (e.g., climate change).

Health Supervision and Screening

Annual health supervision visits are recommended, including annual influenza immunization; growth and developmental surveillance; and assessment of social and academic progress, quality of interpersonal relationships, school performance, and emotional wellness (e.g., mood, mental health). Screening for STIs is needed if the adolescent is sexually active. Papanicolaou (Pap) smears are no longer recommended until after age 21 years, regardless of sexual activity. Tuberculosis screening is often needed as teens enter the workforce, but also if risk factors are identified. If a lipid panel was not completed earlier, or if risk factors emerge, it should be completed. Some PCPs order a screening CBC for females after menses begin, although clinical practice guidelines do not support this practice.

Anticipatory Guidance

Anticipatory guidance for the middle adolescent focuses on the teen's expanding physical, cognitive, and socioemotional capabilities; consolidating self-concept; and identifying areas for continued growth and development. The provider should acknowledge and reinforce healthy behaviors and validate the adolescent's physical, intellectual, and social development. Specifically discuss:

- Physical changes that allow for increasing skills; recommend regular, vigorous physical activity, fitness, and engagement in a wide range of activities
- Risks and dangers related to drug, nicotine, performance-enhancing drugs, caffeine, diet pills, and alcohol use and abuse
- Injury prevention (e.g., bike helmets; seat belts and safe driving; safe and responsible handling and use of weapons)
- Risky behaviors (e.g., technology and social media)
- Involvement in extracurricular activities (e.g., clubs, hobbies, volunteer work, community activities)
- Relationship between nutrition, health, and a positive body image (see Chapters 14 and 29)
- Healthy sleep habits (see Chapter 16)
- Importance of completing high school and making plans for the future
- Sex and sexuality:
  - Responsible/safe sexual behavior(s)
  - Prevention of STIs
  - Birth control, including emergency methods
  - Preventing and reporting date rape or intimate partner violence
  - Sexual orientation
  - Breast or testicular self-examination (Note: although the US Preventive Services Task Force [USPSTF] guidelines do not recommend self-examination,[62] this is common practice and is included in the Bright Futures recommendations, but the USPSTF recommendations are challenged by many)[63,64]
- Existence and nature of peer relationships: Are they based on mutual respect and caring? Gang involvement? Bullying?
- Nature of relationship with parents/caregivers. Are reasonable limits set? Do parents show interest and concern for the teenager?
- Emotional maturity: How does the adolescent resolve conflicts? Manage anger and/or frustration? Reduce stress?
- Mental health assessment (e.g., mood, anxiety) (see Chapter 6)
- Potential for self-harm (e.g., cutting, bingeing and purging)

If a plan for transition to adult health care is not already in place, one needs to be developed. These plans must be based on an assessment of the adolescent's ability to provide self-care, and the needs and desires of the teen and their family. Once in place, plans should be reevaluated annually. Adolescents with developmental or intellectual disabilities require additional support to foster the adolescent's ability to participate to the fullest extent possible in their medical decision making.[60,61]

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Late Adolescence (18–21 Years)

Late adolescence is a time of behavioral autonomy. It is when most adolescents have a clearer self-concept, life choices are made, and decisions about how they plan to contribute to society as a responsible adult are implemented.

Physical Development

Physical growth and development are typically complete, although some teens, mostly males, will continue to gain height into their early 20s, as PHV occurs later in males.

Social and Emotional Development

Relationships with parents and family are gradually renegotiated during this phase to a more adult-adult pattern of communication and collaborative decision making, even when they disagree. The role of the parent during late adolescence should be one of support as their adolescent evolves toward young adulthood and reengages with their family. Young adults often develop a modified value system, which is very similar to the one with which they grew up. A substantial number of late adolescents have established their sexuality and entered into an intimate, committed partner relationship, including marriage. Partner selection is based more on individual preferences and less on the peer group's values.

Much of the final identity shaping centers on the late adolescents' perceptions of their future options as adults (e.g., college, vocational or technical training, military service). Individuals affected by violence and other traumatic events can experience prolonged stress that jeopardizes their developing identity. As of July 2021, 54% of teens and young adults ages 16 to 24 years were employed, 61% enrolled in colleges and universities, and 33% were working and enrolled in college.[65] For those who are able or choose to attend college, it can offer a "moratorium," or a prolonged adolescence, a time to further clarify one's self-image, as it offers both maximal autonomy and a structured, supportive environment in which to complete developmental tasks. Those who enter the workforce and/or leave home out of high school do not always have the added time and/or supportive structures of the college experience. Adolescents who are unsuccessful in the educational system or the workplace may opt to establish their identity by joining gangs or becoming socially isolated. Some opt to join the military, which provides an alternative structured environment but may lead to them taking on adult responsibilities for which they may not be psychologically or emotionally prepared (e.g., combat).

Cognitive Development

Late adolescents have adult reasoning capabilities and skills but are still gaining experience with both. They are generally capable of understanding the consequences of their actions and behaviors and make complex and sophisticated judgments about human relationships. They no longer base their judgments about people on overt behavior, and have a good understanding of inner motivations, including multiple determinants of an action. Of course, neither teens nor adults consistently use this mature level of thinking, and some never reach this level of cognitive maturity.

Health Supervision and Screening

Annual health supervision visits are recommended, including an annual influenza immunization. Screening for STIs is needed if the adolescent is sexually active, and Pap smears should begin for females at age 21 years, regardless of sexual activity. Tuberculosis screening is indicated if risk factors are identified. A fasting lipoprotein analysis is recommended at least once during late adolescence. A plan for transition to adult care should be clearly developed by this time. Transition involves providing medical records and referring the adolescent to an adult PCP. Many teens benefit from a pretransfer visit with an adult provider.[60] PCPs can also assist the adolescent to learn about health insurance (e.g., access, use), how to use the healthcare system, and to take responsibility for self-care, especially as they may be removed as dependents on their parents' policies.

Anticipatory Guidance

Anticipatory guidance for the late adolescent centers on the transition from being a teen to taking on the responsibility and role of an adult, which includes:

- How physical activity, exercise, nutrition, sleep, and rest are incorporated into their lifestyle and budget
- Strategies to balance responsibilities of school, family, and employment
- Conflict resolution and stress management strategies
- Future goals and plans (e.g., family/children, college/vocational training, military, job options)
- Ways to clarify values and beliefs; identifying talents and interests to be pursued and taking on challenges that increase self-confidence
- Need for and maintaining relationships with family, parents, siblings, friends, significant others, and community
- Injury prevention strategies
- Sex and sexuality:
  - Responsible sexual behaviors, including safe sex
  - Continued exploration and clarification of sexual orientation/management of sexual feelings
  - STI prevention
  - Date rape and intimate partner abuse prevention and reporting
  - Birth control, including emergency methods
  - Childbearing and childrearing consideration
  - Breast or testicular self-examination (see controversy discussed in middle adolescence)

Additional Resources

Adolescent Health Transition Project (AHTP): http://depts.washington.edu/healthtr/

Alliance of Professional Tattooists, Inc. (APT): https://safe-tattoos.com/

American Academy of Family Physicians: www.aafp.org

American Academy of Pediatrics (AAP): www.aap.org

AAP Adolescent Health Care Campaign Toolkit: https://www.aap.org/en/news-room/campaigns-and-toolkits/adolescent-health-care/

AAP Family Media Plan:

https://www.healthychildren.org/English/media/Pages/default.aspx

Centers for Disease Control and Prevention (CDC): www.cdc.gov

Family Acceptance Project: https://familyproject.sfsu.edu

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Got Transition: Resources for Health Providers: http://gottransition.org/providers/index.cfm
Menstrupedia: http://mestrupedia.com
National Runaway Safeline: www.1800runaway.org (800-RUN-AWAY [800-786-2929])
Parenting Teens and Tweens: www.parentingteensandtweens.com
Rapid Assessment for Adolescent Preventative Services (RAAPS): www.raaps.org
Rape, Abuse, and Incest National Network (RAINN): https://www.rainn.org/resources
Sex, etc.: https://sexetc.org/
Society for Adolescent Health and Medicine (SAHM): www.adolescenthealth.org

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Edukasi "*Menarche*" sebagai *Anticipatory Guidance* pada Anak dengan *Early Adolescence*

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ABSTRACT

Lack of knowledge about menarche and how young girls handle it, can lead to various problems. Self-development programs can provide anticipatory guidance for children in early adolescence to become independent individuals. One of them is self-care skills such as using and changing sanitary napkins during menstruation. The limited sources of information about reproductive health that are appropriate for adolescents and the absence of reproductive health material in the school curriculum make it urgent to provide education to children. The aim of this activity is to provide education to children in early adolescence about menstruation and simulate pre-menstrual skills. The methods used are interactive lectures and simulations. The location of the activity is SDN Tegalrejo 1, Yogyakarta. The results of this activity showed that there was an increase in pre-menstrual knowledge and skills by 31.4%, which was in the very good category. The conclusion of this activity is that education using interactive lecture methods and simulations is effective in increasing pre-menstrual knowledge and skills in children in early adolescence.

Keywords*: Anticipatory guidance; early adolescence; education; Menarche*

ABSTRAK

Kurangnya pengetahuan mengenai *Menarche* (menstruasi pertama kali pada perempuan) dan cara penanganannya pada anak perempuan dapat memicu munculnya berbagai masalah. Program pengembangan diri dapat menjadi *anticipatory guidance* pada anak dengan *early adolescence* untuk menjadi individu yang mandiri. Salah satunya adalah keterampilan mengurus diri seperti menggunakan dan mengganti pembalut saat menstruasi. Terbatasnya sumber informasi tentang kesehatan reproduksi yang sesuai dengan usia remaja, serta belum ada materi kesehatan reproduksi pada kurikulum sekolah menjadi urgensi untuk memberikan edukasi pada anak. Tujuan kegiatan ini adalah memberikan edukasi pada anak dengan *early adolescence* tentang menstruasi dan simulasi keterampilan pramenstruasi. Metode yang digunakan adalah ceramah interaktif dan simulasi. Lokasi kegiatan di SDN Tegalrejo 1 Yogyakarta. Hasil dari kegiatan ini menunjukkan terdapat peningkatan pengetahuan dan keterampilan pramenstruasi

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sebesar 31,4% dan berada dalam kategori sangat baik. Kesimpulan dari kegiatan ini adalah edukasi dengan menggunakan metode ceramah interaktif dan simulasi efektif dalam meningkatkan pengetahuan dan keterampilan pramenstruasi pada anak dengan *early adolescence*.

Kata Kunci: *Anticipatory guidance*; *early adolescence*; edukasi; *Menarche*

PENDAHULUAN

Menarche (menstruasi pertama kali pada perempuan) merupakan salah satu aspek kematangan seksual yang pertama kali terjadi pada masa pubertas seorang wanita. Menstruasi terjadi secara regular setiap bulan akan membentuk siklus menstruasi, yang menunjukkan bahwa organ-organ reproduksi seorang wanita berfungsi dengan baik. Normalnya menstruasi berkisar antara 21-35 hari dengan rata-rata durasi siklus adalah 28 hari (Castilho & Nucci, 2015). Pola pendarahan menstruasi merupakan indikator relevan terhadap kesehatan reproduktif dan perubahan pada pola perdarahan dapat berdampak pada kualitas hidup wanita pramenopause dan peri-menopause.

Masa pubertas ditandai dengan adanya ciri-ciri seks sekunder dan ciri-ciri seks primer. Pada anak perempuan, tanda-tanda ciri-ciri seks sekunder dimulai dengan membesarnya ukuran payudara dan mulai membentuknya pinggul, tumbuh rambut di ketiak, dan di sekitar alat kelamin, sedangkan ciri seks primernya adalah ketika anak mulai mengalami menstruasi yang pertama. Anak perempuan pertama kali mengalami menstruasi rata-rata pada usia 12 tahun (Chulani & Gordon, 2014).

Program pengembangan diri dapat menjadi *anticipatory guidance* (petunjuk antisipasi) pada anak dengan *early adolescence (*remaja awal*)* untuk menjadi individu yang mandiri di kemudian hari sehingga melatih anak agar tidak bergantung kepada bantuan orang lain. Program pengembangan diri yang dapat diberikan kepada anak dengan *early adolescence* dapat berupa keterampilan bina diri, salah satunya adalah keterampilan mengurus diri sendiri (Sychareun et al., 2020). Keterampilan mengurus diri dalam kegiatan sehari-hari yang tidak bisa lepas dari kebutuhan diri anak diantaranya berupa keterampilan *toileting* (keterampilan untuk melakukan perawatan kebersihan diri seperti BAK dan BAB), keterampilan berpakaian, serta keterampilan menggunakan dan mengganti pembalut bagi anak perempuan saat mengalami menstruasi.

Tingkat pengetahuan yang kurang mengenai *menarche* dan bagaimana cara penanganannya pada anak perempuan dapat memicu munculnya berbagai masalah. Salah satu kasus yang pernah terjadi di salah satu Sekolah Dasar (SD) yaitu adanya siswi yang tidak sadar mengalami menstruasi sehingga mengalami 'bocor' namun tidak segera menuju UKS (Unit Kesehatan Sekolah) untuk meminta penanganan lebih lanjut.

Selain itu, saat ini edukasi yang telah dilakukan di SD hanya penjelasan secara teori saja mengenai reproduksi dan narkoba. Hal lain yang menjadi perhatian adalah belum ada media informasi yang spesifik membahas tentang menstruasi pertama (*menarche*) untuk anak perempuan sebagai media yang dapat menjadi panduan dalam memasuki masa pubertas mereka, terutama pada anak perempuan di jenjang kelas 4 hingga 6 SD.

Perubahan tubuh remaja dianggap suatu hal yang ganjil serta membingungkan mereka (Belayneh & Mekuriaw, 2019). Selain perubahan tubuh, seseorang yang akan atau sedang mengalami menstruasi juga mengalami perubahan mental (Hosseini & Padhy, 2022). Pengetahuan mengenai *menarche* lebih sering ditemui melalui artikel, jurnal serta buku-buku yang lebih ditujukan untuk orang dewasa. Penjelasan mengenai *menarche* juga banyak melalui internet, namun dalam bentuk artikel yang kurang sesuai dengan anak perempuan yang baru masuk dalam masa pubertas.

Pemberian edukasi keterampilan pramenstruasi membutuhkan metode yang tepat sehingga peserta kegiatan dapat memahami terhadap materi yang disampaikan. Metode simulasi dapat diartikan cara penyajian pengalaman belajar dengan menggunakan situasi tiruan untuk memahami tentang konsep, prinsip atau ketrampilan tertentu. Simulasi dapat digunakan sebagai metode mengajar dengan asumsi tidak semua proses pembelajaran dapat dilakukan secara langsung pada objek yang sebenarnya (Sanjaya, 2013). Metode simulasi dengan menggunakan media audio visual dapat diterapkan pada remaja untuk meningkatkan pengetahuan dan keterampilan pramenstruasi. Metode tersebut sangat disukai dan menarik bagi anak (Puspitasari et al., 2015).

Hasil studi pendahuluan yang dilakukan oleh pengabdi di SDN Tegalrejo 1 kepada 3 siswi yang menginjak usia remaja (*early adolescence*) menyatakan, 2 siswi sudah mengalami menstruasi namun belum mengetahui kenapa mengalami menstruasi, 1 siswi menyatakan belum memahami bagaimana tanda-tanda menstruasi dan kurang memahami bagaimana memasang pembalut, 3 siswi belum mengetahui cara membuang pembalut bekas pakai dengan benar. Selain itu, guru juga menyatakan belum pernah memberikan edukasi pubertas pada anak-anak terutama terkait pembelajaran pre menstruasi.

Berdasarkan latar belakang tersebut, maka pengabdi tertarik ingin memberikan edukasi dengan menerapkan metode simulasi pramenstruasi sebagai *anticipatory guidance* anak dengan *early adolescence.*

METODE

Kegiatan pengabdian ini diawali dengan survei di lapangan dan wawancara pada beberapa siswa putri kelas 4 dan 5 SD. Selanjutnya, dilakukan identifikasi masalah, perumusan masalah, solusi dalam pemecahan masalah, dan evaluasi kegiatan. Subyek yang menjadi sasaran dalam program pengabdian ini adalah siswa putri kelas 4 dan 5 yang berjumlah 51 orang di SDN Tegalrejo 1, Yogyakarta.

Metode dalam kegiatan pengabdian ini adalah metode simulasi pramenstruasi dengan menggunakan media PPT (*Power Point*) untuk menyampaikan materi dan video. Kegiatan pengabdian ini meliputi 5 sesi.

1. Sesi Pertama
   Pada sesi pertama diawali dengan pembukaan dengan memperkenalkan diri kepada peserta kegiatan serta *pre test* dengan simulasi memasang dan melepas pembalut pada saat menstruasi.

2. Sesi Kedua
   Pada sesi kedua dilakukan *brainstorming* pengetahuan peserta terhadap menstruasi dan tanda-tanda pubertas.

3. Sesi Ketiga
   Setelah dilakukan *brainstorming*, pada sesi ketiga ini dilanjutkan dengan pemberian materi tentang menstruasi. Materi yang disampaikan antara lain: pengertian menstruasi, siklus menstruasi, tanda-tanda menjelang menstruasi, ciri-ciri pubertas, dan keterampilan pramenstruasi.

4. Sesi Keempat
   Pada sesi keempat ini, narasumber memberikan simulasi pramenstruasi dimulai dari cara memasang pembalut, memakai pembalut dan melepas pembalut, hingga membuangnya. Setelah memberikan simulasi kemudian dilanjutkan dengan sesi diskusi tanya jawab.

5. Sesi Kelima
   Pada sesi terakhir dari kegiatan ini adalah melakukan *post test* dengan menilai kemampuan tiap peserta dalam melakukan keterampilan pramenstruasi dan dilanjutkan kegiatan penutup.

Instrumen yang digunakan dalam kegiatan pengabdian ini berupa pedoman observasi yang mengadopsi dari penelitian sebelumnya tentang latihan keterampilan pramenstruasi pada anak autis (Lestari, 2017). Pedoman observasi dibuat dengan tujuan agar observasi yang dilakukan lebih terarah, fokus, dan terstruktur sehingga data-data yang diperoleh lebih mudah diolah dan dianalisa. Pedoman observasi tersebut tidak ada perbedaan antara anak autis dengan anak normal karena gejala dan ketrampilan pramenstruasi sama, seperti perubahan fisik dan emosional yang terjadi sebelum menstruasi akan dialami anak autis dan normal.

Instrumen pertama untuk mengetahui partisipasi peserta dalam mengikuti latihan keterampilan pramenstruasi yang berjumlah 10 indikator, dengan rentang skor 1-5 dan bobot nilai tertinggi adalah 50, sedangkan instrumen kedua untuk menilai simulasi keterampilan pramenstruasi yang berjumlah 13 indikator dengan rentang skor 1-5 dan bobot nilai tertinggi adalah 65.

Indikator keberhasilan digunakan untuk mengetahui tingkat keberhasilan peserta dalam menguasai keterampilan pramenstruasi. Tingkat keberhasilan diketahui dari hasil perolehan skor peserta dalam melakukan tindakan. Subyek dikatakan lulus atau tuntas jika mampu memiliki nilai di atas batas nilai Kriteria Ketuntasan Minimum (KKM) yang disesuaikan dengan kelas yang diikutinya. KKM yang ditentukan pada kelas yang diikuti subyek adalah 59,5 sehingga kegiatan ini dikatakan berhasil jika nilai akhir yang diperoleh subyek lebih besar atau sama dengan (≥) dari KKM.

HASIL DAN PEMBAHASAN

Kegiatan pengabdian masyarakat ini bertujuan untuk memberikan edukasi kepada remaja putri yang menjelang usia pubertas tentang ketrampilan pramenstruasi. Peserta kegiatan pengabdian ini adalah siswi kelas 4 dan 5 SD.

Tabel 1. Distribusi Frekuensi Karakteristik Peserta Kegiatan

Responden	Frekuensi	(%)
Usia		
10	2	3,9
11	24	47,1
12	25	49
Menstruasi		
Belum	27	52,9
Sudah	24	47,1

(Sumber: Diolah Penulis, 2023)

Edukasi tentang menstruasi sangat diperlukan agar remaja putri mendapat informasi tentang mengelola menstruasinya secara aman dan sehat. Kurangnya pengetahuan tentang menstruasi dan stigma kelompok sosial yang masih menganggap masalah ini tabu, membuat sebagian remaja putri pernah mendapatkan tindakan perundungan dari teman sekolahnya.

Hasil penelitian menunjukkan sebanyak 13% remaja putri mendapatkan ejekan saat menstruasi dan lebih dari 80% mengalami ketakutan digoda oleh teman laki-laki pada saat menstruasi (Benshaul-tolonen et al., 2020). Selain itu, banyaknya misinformasi dan mitos yang beredar tentang menstruasi membuat remaja putri kesulitan menemukan informasi yang valid dan pemahaman yang tepat bahwa menstruasi adalah proses biologis yang normal dan penting untuk dikelola dengan baik.

Edukasi tentang menstruasi perlu mendapatkan perhatian yang serius dari semua pihak karena hal ini sebagai upaya di dalam memberikan pendidikan kesehatan reproduksi untuk remaja putri agar mampu mengelola menstruasinya dengan normal dan percaya diri. Berdasarkan tabel 1, sebagian besar peserta kegiatan berusia 12 tahun (49%) dan belum mengalami menstruasi sebanyak 27 siswi (52,9%).

Setiap anak pada umumnya akan mengalami masa pubertas. Dimulainya masa pubertas pada setiap anak tidak sama, namun pada umumnya terjadi pada usia setelah 11 tahun, meskipun ada juga anak yang sudah mengalami pubertas sebelum usia 11 tahun.

Tanda-tanda pubertas dimulai dengan perubahan-perubahan pada diri anak yang dapat dilihat maupun tidak terlihat. Tanda-tanda perubahan yang dapat diamati terlihat dari perubahan pada fisik anak, sedangkan perubahan yang tidak terlihat berupa perubahan hormonal pada diri anak.

Pada masa pubertas, ciri-ciri seks sekunder ditandai dengan adanya perubahan yang dapat diamati dan ciri seks primer akibat perubahan hormonal dalam diri anak. Ciri-ciri seks sekunder pada anak perempuan sudah mulai nampak sejak anak memasuki usia pra pubertas. Perubahan tersebut meliputi mulai membesarnya payudara dan mulai membentuknya pinggul, tumbuh rambut-rambut di ketiak dan sekitar kemaluan (Chandra-Mouli & Patel, 2017).

Pada anak perempuan, ciri pubertas ditandai dengan munculnya ciri seks primer berupa datangnya menstruasi yang pertama, sedangkan pada ciri seks sekunder vagina akan mulai mengeluarkan cairan, keringat bertambah banyak, kulit dan rambut berminyak, timbul jerawat di wajah, dan suara menjadi lebih nyaring. Setiap anak perempuan pada umumnya akan mengalami menstruasi.

Menstruasi adalah proses keluarnya darah dari rahim melalui vagina yang berlangsung selama beberapa hari dan terjadi secara periodik setiap bulannya. Proses keluarnya darah tersebut biasanya tidak sakit, namun ada beberapa perempuan yang merasakan sakit pada saat awal menstruasi (Coast et al., 2019).

Tabel 2. Partisipasi Peserta dalam Kegiatan Edukasi *Menarche*

Kategori	Frekuensi	(%)
Cukup	23	45,1
Baik	7	13,7
Sangat Baik	21	41,2

(Sumber: Diolah Penulis, 2023)

Berdasarkan tabel 2, partisipasi peserta pada saat diberikan edukasi berada pada kategori cukup sebanyak 23 peserta (45%). Materi yang diberikan dalam kegiatan pengabdian ini yaitu pengertian menstruasi, siklus menstruasi, tanda-tanda menjelang menstruasi, dan ciri-ciri pubertas. Metode dalam kegiatan pengabdian ini menggunakan metode ceramah interaktif. Metode ceramah interaktif bertujuan mendorong terwujudnya *active learning* yang diperlukan untuk memotivasi dalam belajar.

Penelitian Widya et al. (2022) menunjukkan bahwa metode ceramah interaktif dapat meningkatkan pengetahuan siswa SD tentang kebersihan mulut dan gigi. Metode ceramah interaktif juga dapat meningkatkan pengetahuan pada anak terhadap gizi seimbang yang ditunjukkan dengan nilai *value* yaitu 0,000 (Goni et al., 2019).

Metode ceramah yang diterapkan dalam proses pembelajaran disertai dengan metode tanya jawab. Hal ini memberikan kesempatan untuk menanyakan hal-hal yang belum dipahami dan melihat keaktifan serta respon peserta terhadap materi pembelajaran yang telah disampaikan.

Media pengajaran yang tepat dapat mendukung keberhasilan proses belajar mengajar. Media yang digunakan dalam kegiatan ini dengan menggunakan media audio visual. Media berfungsi untuk membantu penyuluhan kesehatan dalam menyampaikan pesan kesehatan sehingga sasaran penyuluhan mendapatkan materi dan informasi dengan jelas dan lebih terarah. Media audio visual memiliki fungsi untuk menstimulasi indera penglihatan dan pendengaran pada saat penyampaian materi (pesan) kesehatan yang diberikan (Nurmala et al., 2018).

Hasil penelitian lain menunjukkan bahwa, pemberian edukasi dengan metode simulasi dan audio visual efektif untuk meningkatkan pengetahuan dan keterampilan menggosok gigi pada anak dengan tuna grahita (Indriasari, 2023). Pemilihan media pengajaran yang tepat dapat memperbesar arti dan fungsi dalam menunjang efektivitas dan efisiensi proses belajar mengajar (Ali, 2010). Selain itu, media audio visual mendorong proses belajar mengajar dan membuat lebih mudah serta menarik sehingga pengajaran akan lebih efektif (Rosdiana, 2018).

Gambar 1. Pemberian Materi kepada Peserta
(Sumber: Dokumentasi Pribadi, 2023)

Tabel 3. Simulasi *Pre* dan *Post* Diberikan Edukasi

Kategori	*Pre*		*Post*	
	f	%	f	%
Sangat Baik	17	33	33	64,7
Baik	12	22	18	35,3
Cukup	22	42		
Kurang	2	3		

(Sumber: Hasil Analisis, 2023)

Pada kegiatan pengabdian masyarakat ini, peserta sebelum diberikan edukasi melakukan simulasi keterampilan pramenstruasi dan sesudah diberikan edukasi melakukan simulasi lagi. Berdasarkan tabel 3, sebelum diberikan edukasi hasil simulasi termasuk pada kategori cukup sebanyak 22 peserta (42%), namun setelah diberikan edukasi, hasil simulasi meningkat dan berada pada kategori sangat baik sebanyak 33 peserta (64,7%).

Hal ini didukung oleh penelitian sebelumnya tentang efektifitas metode simulasi dapat meningkatkan kesiapsiagaan anak dalam menghadapi gempa bumi sebanyak 74,2% (Indriasari, 2016). Hal yang sama terkait penggunaan metode simulasi sangat efektif dalam meningkatkan pengetahuan siswa terhadap pencegahan penularan covid-19 dengan melakukan cuci tangan 6 langkah (Merdekawati et al., 2022).

Gambar 2. Kegiatan *Pre* dan *Post* Edukasi
(Sumber: Dokumentasi Pribadi, 2023)

Simulasi merupakan metode mengajar yang bertujuan untuk menjelaskan sesuatu (bahan pelajaran) melalui perbuatan yang bersifat pura-pura atau melalui proses tingkah laku imitasi, atau bermain peran mengenai suatu tingkah laku yang dilakukan seolah-olah dalam keadaan yang sebenarnya (Sudjana, 2013). Materi simulasi yang diberikan kepada peserta, yaitu: a) memilih pembalut yang baik, b) memasang pembalut dengan benar, c) menggunakan pembalut dengan benar, d) mengganti pembalut secara teratur, e) membuang pembalut (Kemendikbud, 2017).

Kegiatan pengabdian masyarakat dengan memberikan edukasi "*Menarche*" termasuk dalam kategori berhasil karena 64,7% peserta mendapatkan skor ≥ 59,5. Faktor pendukung keberhasilan kegiatan ini adalah antusiasme peserta dalam mengikuti kegiatan sampai selesai dan dukungan dari walisiswa serta guru sekolah yang telah memberikan ijin dan memfasilitasi sehingga kegiatan ini dapat diimplementasikan.

SIMPULAN

Kegiatan pengabdian masyarakat ini berupa edukasi dan simulasi keterampilan pramenstruasi pada anak menjelang usia remaja (*early adolescence*). Partisipasi peserta dalam kegiatan termasuk dalam kategori cukup. Evaluasi dari kegiatan ini terdapat peningkatan ketrampilan pramenstruasi sebesar 31,4% dan berada dalam kategori sangat baik.

Metode ceramah interaktif dan simulasi efektif dalam meningkatkan pengetahuan dan ketrampilan pramenstruasi pada anak dengan *early adolescence*. Rencana tindak lanjut dari kegiatan ini adalah memberikan *sex education* dan menjaga kesehatan reproduksi sebagai upaya menjauhkan remaja dari penyakit menular seks dan praktik seks yang tidak bertanggung jawab.

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MODEL BUKU PANDUAN TENTANG PENCEGAHAN KECELAKAAN DALAM MENINGKATKAN PENGETAHUAN DAN SIKAP PENCEGAHAN KECELAKAAN PADA BALITA

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Abstract: pocket book guide to the prevention of accidents, Toddler. *The purpose of this study was to determine the level of knowledge of mothers regarding accident prevention measures among children, maternal attitudes in accident prevention action programs in children under five. This study is a quasi-experimental study conducted in women who have children under the number of 50 respondents in each treatment group and control with simple random sampling. The results showed that the incidence of accidents is 86% or 43 cases in the treatment group and 72% or 36 cases in the control group, the type of accident that happens to fall 70 cases, 23 cases of burns, electric shock 23 cases, 43 cases of choking, exposed objects sharp 33 cases, 16 cases of drowning, drinking or eating hazardous materials 6 cases, choking or can not breathe 9 cases, and accidents lalulitas no case, the average level of knowledge of the mother before and after treatment increased, the treatment group of 24, 26 increased to 28.80, while in the control group rose to 25.18 from 23.94, and the average value of the attitude of mothers in the intervention group increased from 95.10 into 99.94 while in the control group decreased from 96.92 to 96 , 86, as well as the use of guidelines on the prevention of accidents in toddlers is effective to improve knowledge (t = 0.000) and attitude (t = 0.033) mother on the prevention of accidents in Toddlers.*

Keywords: *pocket book guide accident prevention, Toddler*

Abstrak: buku saku panduan pencegahan kecelakaan, Balita. Tujuan Penelitian ini adalah mengetahui tingkat pengetahuan ibu mengenai tindakan pencegahan kecelakaan pada anak balita, sikap ibu dalam program tindakan pencegahan kecelakaan pada anak balita. Peneltian ini merupakan penelitian quasi eksperimen yang dilakukan pada ibu yang mempunyai anak balita dengan jumlah 50 responden pada masing masing kelompok perlakuan dan kontrol dengan simple random sampling. Hasil penelitian menunjukkan bahwa angka kejadian kecelakaan adalah 86% atau 43 kasus pada kelompok perlakuan dan 72% atau 36 kasus pada kelompok kontrol, jenis kecelakaan yang terjadi jatuh 70 kasus, luka bakar 23 kasus, tersetrum listrik 23 kasus, tersedak 43 kasus, terkena benda tajam 33 kasus, tenggelam 16 kasus, minum atau makan bahan berbahaya 6 kasus, tercekik atau tidak bisa bernapas 9 kasus, dan kecelakaan lalulitas tidak ada kasus, rata-rata tingkat pengetahuan ibu sebelum dan sesudah perlakuan mengalami peningkatan, pada kelompok perlakuan dari 24,26 meningkat menjadi 28,80 sedangkan pada kelompok kontrol dari 23,94 naik menjadi 25,18, dan rata-rata nilai sikap ibu pada kelompok perlakuan meningkat dari 95,10 menjadi 99,94 sedangkan pada kelompok kontrol menurun dari 96,92 menjadi 96,86, serta penggunaan buku panduan tentang pencegahan kecelakaan pada balita efektif untuk meningkatkan pengetahuan (t=0.000) dan sikap (t=0,033) ibu tentang pencegahan kecelakaan pada Balita

Kata Kunci: buku saku panduan pencegahan kecelakaan, balita

Masa anak merupakan masa pertumbuhan dan perkembangan manusia yang sangat penting. Hal ini terjadi karena kejadian dan pengalaman yang terjadi pada masa anak akan sangat mempengaruhi tahap perkembangan selanjutnya. Pertumbuhan dan perkembangan yang baik, sesuai dengan tahap dan tugas perkembangan pada masa anak akan membuat perkembangan berikutnya menjadi lebih baik.

Namun demikian pada masa anak sering menyebabkan gangguan pada masa pertumbuhan perkembangan berikutnya. Salah satu masalah yang sering terjadi adalah kecelakaan atau injuri pada masa anak-anak. Setiap tahun, hampir 1 juta anak meninggal karena kecelakaan dan lebih dari puluhan juta anak-anak lainnya memerlukan perawatan rumah sakit karena mengalami luka berat. Diantara yang luka berat banyak yang menjadi cacat permanen dan mendapat gangguan fungsi otak. Kecelakaan menjadi penyebab utama kematian dan kecacatan pada anak-anak. (Depkes RI, 2014).

Tenaga kesehatan dalam hal ini perawat, mempunyai peran penting dalam upaya penurunan angka kejadian kecelakaan pada anak. Perawat mempunyai tanggung jawab untuk tindakan promotif dan preventif terjadinya kecelakaan pada anak sesuai dengan tugas dan wewenang perawat. Hal ini sejalan dengan gerakan dunia untuk kesejahteraaan dan keselamatan anak. Pada *United Nation General Assembly Special Session on Children* yang diselenggarakan pada bulan Mei 2002 di New York, negara-negara peserta menegaskan kembali dan mendeklarasikan komitmen terhadap kesejahteraan anak. Komitmen tersebut dikenal sebagai ”*A World Fit for Children*” (WFC).

Upaya untuk menurunkan terjadinya kecelakaan pada anak usia di bawah lima tahun (BALITA) diperlukan strategi yang cepat dan tepat melalui suatu program yang terencana. Namun demikian pedoman ini belum banyak dikenal dan diaplikasikan di masyarakat. Fakta menunjukkan bahwa kejadian kecelakaan pada anak masih banyak terjadi yang umumnya disebabkan oleh kurangnya pengawasan dari orang tua atau pengasuh dalam melakukan pencegahan. Di media massa maupun elektronik masih sering diberitakan adanya anak yang terjatuh dari lantai dua saat ikut orang tuanya belanja di pusat perbelanjaan, anak tersiram air panas, tersedak makanan, terserempet kendaraan bermotor dan sebagainya. Secara teknis upaya peningkatan kesehatan dan kesejahteraaan anak yang didilakukan di Puskesmas melalui kegiatan Posyandu. Program ini secara langsung dikelola oleh Puskesmas sebagai ujung tombak pelayanan kesehatan yang bersentuhan dengan masyarakat secara langsung sampai pelosok daerah. Diantara sekian banyak program kegiatan Posyandu masalah pencegahan kecelakaan pada anak belum begitu diperhatikan. Kondisi ini sering peneliti temukan di masyarakat, bukan hanya karena kegiatan ini dianggap kurang penting, namun juga dikarenakan pengetahuan kader kesehatan tentang hal ini juga belum begitu memadai.

Melihat permasalahan di atas, maka perlu adanya strategi tentang upaya pencegahan terjadinya kecelakaan pada anak yang tepat untuk meningkatkan pengetahuan, sikap dan perilaku masyarakat tentang tindakan pencegahan terjadinya kecelakaan pada anak. Berdasar uraian tersebut, maka peneliti tertarik untuk melakukan suatu penelitian tentang strategi apa yang efektif untuk meningkatkan pengetahuan dan sikap ibu dalam melakukan pencegahan kecelakaan pada anak balita. Salah satu metode baru yang akan peneliti lakukan adalah dengan pemberian buku panduan pencegahan kecelakaan anak balita kepada ibu dengan balita.

METODE PENELITIAN

Penelitian ini merupakan penelitian eksperimen dengan desain eksperimen semu (*quasi eksperimen pre test-post test design*). Untuk mengetahui keefektifan buku panduan pencegahan kecelakaan pada anak balita, peneliti membandingkan dengan kelompok ibu yang diberi penyuluhan kesehatan secara konvensional yaitu ceramah sebagai kelompok kontrol dengan kelompok ibu yang diberi *treatment* baru yaitu diberi buku panduan pencegahan kecelakaan pada anak balita sebagai kelompok perlakuan. Adapun pola perlakuan penelitian ini adalah:

K1 : 01 X 02

K2 : 03 0 04

Populasi dalam penelitian ini adalah seluruh ibu yang mempunyai anak balita di Posyandu wilayah kerja Puskesmas Ngemplak Kabupaten. Pada penelitian ini diambil 3 (tiga) Posyandu sebagai kelompok uji coba, kontrol, dan perlakuan. Sebagai kelompok perlakuan dan kontrol diambil ibu-ibu yang mempunyai anak balita dengan masing-masing 50 (lima puluh) responden.

HASIL PENELITIAN

Pengetahuan Ibu Pra Perlakuan

Pengetahuan tentang pencegahan kecelakaan sebelum diberi Perlakuan.

Berdasarkan diagram 1. Dapat dijelaskan bahwa rata-rata nilai pengetahuan responden tentang pencegahan kecelakaan anak balita pada kelompok perlakuan adalah 24,26 di mana persentase paling banyak pada kelompok nilai 21–25 yaitu 30 responden atau 60% dan persentase yang paling sedikit

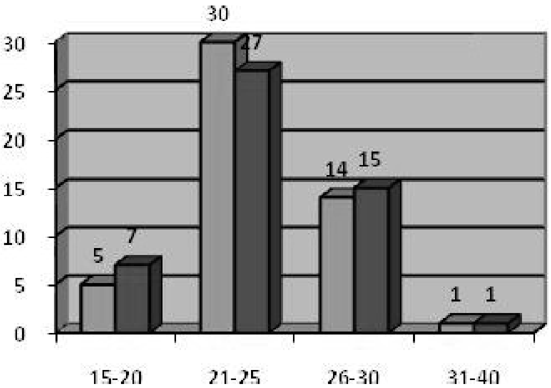

Diagram 1. Pengetahuan Responden tentang Pencegahan Kecelakaan Anak Balita

adalah pada kelompok nilai 31–40 yaitu 1 responden atau 2%. Adapun pada kelompok kontrol nilai rata-rata menunjukkan 23,94 dengan persentase terbanyak pada nilai 21–25 sebanyak 27 responden (54%) dan jumlah paling sedikit pada kelompok nilai 31-40 yaitu 1 responden (2%).

Pengetahuan Ibu Post Perlakuan

Hasil penelitian menunjukkan rata-rata nilai pengetahuan responden tentang pencegahan kecelakaan anak balita pada kelompok perlakuan setelah diberi perlakuan adalah 28,80 di mana persentase paling banyak pada kelompok nilai 26–30 yaitu 30 responden atau 60% dan persentase paling sedikit adalah pada kelompok nilai 15–20 yaitu 1 responden atau 2%. Adapun pada kelompok kontrol nilai rata-rata menunjukkan 25,18 dengan persentase terbanyak pada nilai 21–25 sebanyak 23 responden (46%) dan jumlah paling sedikit pada kelompok nilai 31–40 yaitu 3 responden (6%). Secara lebih rinci gambaran pengetahuan ibu tentang pencegahan kecelakaan balita setelah diberi Perlakuan (*post test*) dapat dilihat pada diagram 2.

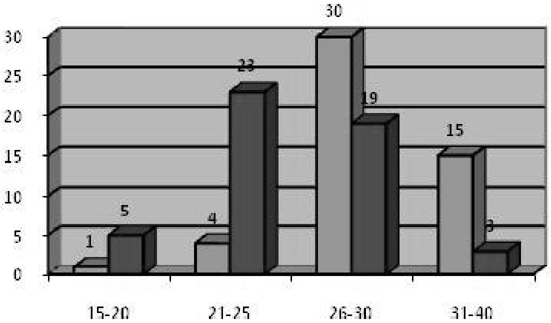

Diagram 2. Pengetahuan Ibu Setelah Perlakuan

Sikap Ibu Sebelum Perlakuan

Berdasarkan diagram 3. menunjukkan bahwa rata-rata nilai sikap responden tentang pencegahan kecelakaan anak balita pada kelompok perlakuan adalah 96,86 di mana persentase paling banyak pada kelompok nilai 91–100 sejumlah 23 responden atau 46% dan persentase paling sedikit adalah pada kelompok nilai 70–80 yaitu 1 responden (2%) dan pada nilai 111–120 dan 121–130 masing-masing 0 responden atau 0%. Adapun pada kelompok kontrol nilai rata-rata menunjukkan 96,92 dengan persentase terbanyak pada nilai 91–100 sebanyak 22 responden (44%) dan jumlah paling sedikit pada kelompok nilai 111–120 sebanyak 4 responden atau 8% sedangkan pada nilai 70–80 dan 121–130 tidak ada (0%).

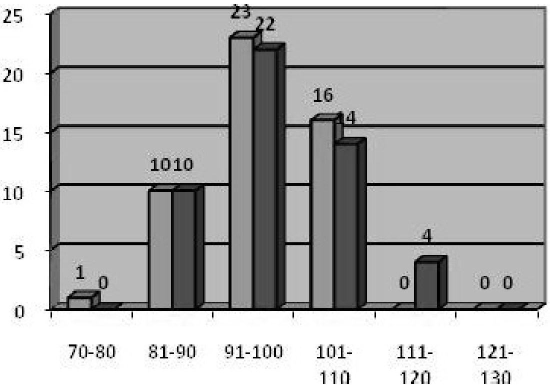

Diagram 3. Sikap Ibu Sebelum Perlakuan

Sikap Ibu Setelah Perlakuan

Hasil penelitian menunjukkan rata-rata nilai sikap responden tentang pencegahan kecelakaan anak balita pada kelompok perlakuan setelah tindakan adalah 99,94 di mana persentase paling banyak pada kelompok nilai 101–110 yaitu 27 responden atau 54% dan persentase paling sedikit adalah pada kelompok nilai 111–120 dan 121–130 denag masing-masing 1 responden atau 2%. Sedangkan pada nilai 70–80 tidak ditemukan atau 0%. Adapun pada kelompok kontrol nilai rata-rata menunjukkan 95,10 dengan persentase terbanyak pada nilai 81–90 sebanyak 17 responden (34%) dan jumlah paling sedikit pada kelompok nilai 70–80 sebanyak 2 responden (4%) dan pada nilai 121–130 tidak ada (0%). Secara lebih rinci gambaran sikap ibu tentang pencegahan kecelakaan balita setelah diberi Perlakuan dapat dilihat pada diagram 4.

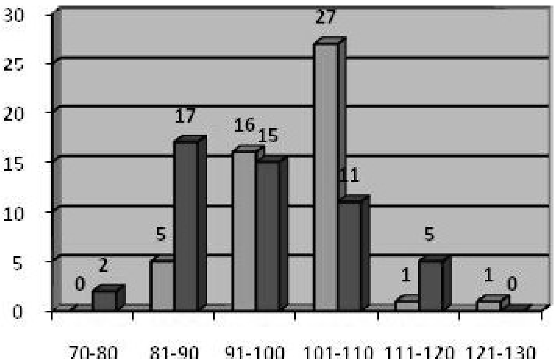

Diagram 4. Sikap Ibu Seteleah Perlakuan

Perbedaan Pengetahuan Sebelum dan Setelah Perlakuan

Hasil analisa statistik dengan *Paired t-test* dari kelompok perlakuan menunjukkan adanya perbedaan yang signifikan dengan nilai t:0,000, sedangkan pada kelompok kontrol menunjukkan tidak ada perbedaan dengan nilai t:0,215. Hasil tersebut dapat dilihat pada tabel 1.

Tabel 1. Hasil Uji *Paired t-test*

Kelompok	Nilai Rata-Rata		Sig
	Pra	Post	
Perlakuan	25,18	28,80	0,000
Kontrol	23,94	24,26	0,215

Perbedaan Sikap Sebelum dan Setelah Perlakuan

Hasil analisa statistik dengan *Paired t-test* dari kelompok perlakuan menunjukkan adanya perbedaan yang signifikan dengan nilai t: 0,01 sedangkan pada kelompok kontrol menunjukkan tidak ada perbedaan dengan nilai t: 0,952. Hasil tersebut dapat dilihat pada tabel 2.

Tabel 2. Hasil Uji *Paired t-test* Nilai Sikap Ibu

Kelompok	Nilai Rata-Rata		Sig
	Pra	Post	
Perlakuan	95,10	99,94	0,001
Kontrol	96,92	96,86	0,952

Perbedaan Pengetahuan dan Sikap antara Kelompok Perlakuan dan Kelompok Kontrol

Hasil uji statistik dengan Independent t-test diantara kedua kelompok diperoleh hasil terdapat perbedaan pengetahuan yang signifikan dengan nilai t - test sebesar 0,000 sedangkan untuk sikap juga menunjukkan adanya perbedaan yang signifikan dengan nilai t - test 0,033. Secara rinci hasil tersebut dapat dilihat pada tabel 3.

PEMBAHASAN

Kejadian Kecelakaan

Angka kejadian kecelakaan pada anak balita di kelompok perlakuan pernah terjadi sebanyak 43 responden atau 86% dan yang tidak pernah terjadi adalah 7 responden (14%). Adapun pada kelompok kontrol yang tidak pernah 13 (26%) sedangkan yang pernah adalah sebanyak 36 responden (72%). Hasil penelitian ini cukup mencengangkan karena ternyata angka kejadian kecelakaan yang terjadi sangat tinggi, terbukti kalau kedua kelompok ini dijumlahkan maka angka kejadian kecelakaan dari 100 responden ada 79 atau 79,00% balita yang mengalami kecelakaan dengan berbagai macam jenis kecelakaan. Bahkan ada beberapa dari responden yang pernah mengalami lebih dari 1 jenis kecelakaan. Kondisi tersebut terjadi dimungkinkan karena adanya ketidaktahuan dari ibu dengan balita, atau karena kurang kepedulian ibu saat sedang bersama dengan anak mereka. Sesuai dengan teori yang diungkapkan oleh (Santi, 2011) bahwa faktor utama terjadinya kecelakaan pada anak adalah kurangnya pengawasan dan perlindungan kecelakaan oleh orang tua atau pengasuh. Kebanyakan orang tua tidak menyadari, bayi bisa bergerak secara cepat. Mereka menjangkau apa saja yang ada di dekat mereka. Ditambah rasa ingin tahu mereka, ditinggal ibunya sebentar saja, bisa fatal akibatnya. Tidak jarang hanya ditinggal mengangkat telepon berdering seorang anak sudah menjerit karena tersiram kopi panas milik ibunya, hanya ditinggal nenek sebagai pengasuh untuk mengambil sapu seorang anak sudah terjatuh dari kereta mainan. Begitu pula yang terjadi pada balita di posyandu Suko Widodo (sebagai kelompok Perlakuan) dan balita di posyandu Suko Mulyo (sebagai kelompok Kontrol) masing-masing pernah atau ada angka kejadian kecelakaan pada balita nya. Pengetahuan merupakan komponen yang penting dalam upaya meningkatkan kemampuan ibu atau pengasuh balita dalam mencegah terjadinya kecelakaan pada balita.

Efektifitas Buku Panduan terhadap Pengetahuan

Salah satu upaya untuk mencegah terjadinya kecelakaan pada anak balita adalah dengan tindakan *anticipatory guidance*. *Anticipatory guidance* adalah petunjuk antisipasi yang bisa diartikan sebagai petunjuk-petunjuk yang perlu diketahui terlebih dahulu agar orang tua dapat mengarahkan dan membimbing anaknya secara bijaksana, sehingga anak dapat bertumbuh dan berkembang secara normal (Nursalam, Susilaningrum Rekawati, dan Utami Sri, 2005). Adapun pengertian lain dalam Supartini Yupi (2004), bimbingan antisipasi atau *anticipatory guidance* adalah bantuan perawat terhadap orang tua dalam mempertahankan dan meningkatkan kesehatan melalui upaya pertahanan nutrisi yang adekuat, pencegahan kecelakaan, dan supervisi kesehatan.

Berdasar pengertian tersebut di atas pada dasarnya yang dimaksud dengan *anticipatory guidance* adalah upaya memberikan pengetahuan yang cukup untuk membantu orang tua mencegah kecelakaan pada anak. Pengetahuan adalah hasil ’tahu’, dan ini terjadi setelah orang melakukan penginderaan terhadap suatu objek tertentu. Penginderaan terjadi melalui pancaindra manusia, yakni: indra penglihatan, pendengaran, penciuman, rasa, dan raba. Sebagian besar pengetahuan manusia diperoleh melalui mata dan telinga. Pengetahuan atau kognitif merupakan domain yang sangat penting untuk terbentuknya tindakan seseorang (*overt behavior*). (Notoadmodjo, 2011). Pada penelitian ini untuk meningkatkan pengetahuan orang tua atau pengasuh, peneliti mencoba dengan 2 (dua) metode yaitu kelompok perlakuan diberikan penyuluhan kesehatan dan diberi buku saku tentang panduan pencegahan kecelakaan anak balita untuk di bawa pulang, sedangkan pada kelompok kontrol hanya diberikan penyuluhan kesehatan saja.

Hasil penelitian menujukkan bahwa penyuluhan kesehatan yang disertai dengan memberikan buku saku tentang panduan pencegahan kecelakaan anak untuk dibawa pulang, lebih efektif untuk meningkatkan pengetahuan ibu atau pengasuh. Kesimpulan tersebut didasari dengan peningkatan nilai rata-rata yang lebih baik pada kelompok perlakuan dari sebelum pelakuan 24,26 meningkat menjadi 28,80 sedangkan pada kelompok yang diberi penyuluhan kesehatan dari 23,94 naik menjadi 25,18. Walaupun secara umum kedua kelompok menunjukkan peningkatan nilai rata-rata, namun hasil uji statistik dengan pairet t-test menunjukan bahwa kelompok perlakuan menunjukkan perbedaan yang signifikan dengan nilai t = 0,000 sedangkan pada kelompok kontrol menunjukkan tidak ada perbedaan yang signifikan dengan nilai t = 0,215.

Dengan demikian buku panduan tentang pencegahan kecelakaan anak balita efektif untuk meningkatkan pengetahuan orang tua atau pengasuh tentang cara pencegahan kecelakaan pada anak balita juga didasarkan dari hasil uji statistik Independent t - test untuk mengetahui perbedaan nilai rata-rata kelompok perlakuan dengan kelompok kontrol, dimana diperoleh nilai rata-rata kelompok perlakuan sebesar 28,80 lebih tinggi dari kelompok kontrol yaitu 24,26 dengan hasil t - test= 0,000.

Selain itu hasil tersebut cukup kuat untuk memberikan bukti bahwa buku panduan pencegahan kecelakaan anak balita, karena hasil uji statistik pada saat sebelum perlakuan kondisi kedua kelompok menunjukkan keadaan yang tidak berbeda atau sama, dimana nilai rata-rata kelompok perlakuan 25,18 dan nilai kelompok kontrol adalah 23,94 dengan hasil Independent t - test 0,082 (> 0,05) yang berarti tidak ada perbedaan nilai pengetahuan diantara kelompok perlakuan dan kontrol pada saat awal. Hasil tersebut membuktikan bahwa buku panduan pencegahan kecelakaan anak balita efektif untuk meningkatkan pengetahuan ibu atau pengasuh karena pada saat awal (*pre test*) nilai kedua kelompok sama atau tidak ada perbedaan namun setelah dilakukan post test terdapat perbedaan yang signifikan.

Efektifitas Buku Panduan terhadap Sikap

Sikap merupakan reaksi atau respon seseorang yang masih tertutup terhadap stimulus suatu objek. Sikap secara nyata menunjukkan konotasi adanya kesesuaian reaksi terhadap stimulasi tertentu. Dalam kehidupan sehari-hari merupakan reaksi yang bersifat emosional terhadap stimulasi sosial. Sikap merupakan pelaksanaan motif tertentu. Sikap belum merupakan suatu tindakan atau aktivitas akan tetapi merupakan suatu disposisi untuk mengambil keputusan tentang tindakan atau perilaku yang akan dilakukan. Sikap itu masih merupakan reaksi tertutup bukan reaksi terbuka atau tingkah laku terbuka. Hasil penelitian menunjukkan Buku Panduan

Pencegahan Kecelakaan pada Anak Balita juga cukup efektif untuk meningkatkan atau merubah sikap orang tua/ibu atau pengasuh tentang upaya pencegahan kecelakaan pada balita. Hal ini didasari dari hasil uji statistik di mana nilai sikap pada kelompok perlakuan meningkat dari 95,10 menjadi 99,94 dengan nilai pairet t - test 0,001. Sedangkan pada kelompok kontrol walaupun juga mengalami peningkatan dari 96,92 meningkat menjadi 96,86, namun hasil pairet t - test 0,952 yang berarti lebih besar dari 0,05 atau tidak ada perbedaan nilai sebelum dan sesudah. Kesimpulan tersebut juga didukung dengan hasil komparasi nilai post test diantara dua kelompok dimana nilai rata-rata kelompok perlakuan adalah 99,94 lebih tinggi daripada kelompok kontrol dengan nilai 96,86 dan dengan Independent t - test didapatkan hasil 0,033 yang berarti ada perbedaan nilai diantara ke dua kelompok. Bukti statistik yang juga mendukung bahwa buku panduan pencegahan kecelakaan anak balita secara efektif dapat merubah sikap ibu atau pengasuh ke arah yang lebih positif yaitu pada saat awal sebelum perlakuan kondisi atau nilai kedua kelompok sama atau tidak ada perbedaan, di mana nilai rata-rata *pre test* kelompok perlakuan 95,10 sedangkan kelompok kontrol 96,92 dengan hasil uji statistik Independent t - test 0,320 yang berarti tidak ada perbedaan sikap pada saat *pre test.*

Menurut Azwar,1995, sikap dapat diubah dengan strategi persuasi, yaitu masukan ide, pikiran, pendapat, dan bahkan fakta baru lewat pesan-pesan komunikatif. Buku panduan yang diberikan kepada kelompok perlakuan memungkinkan dapat memberikan ide-ide baru sehingga dapat menjadikan pertimbangan untuk merencanakan tindakan yang dapat mempengaruhi pendapat seseorang selama ini. Teori Kelman menyatakan bahwa sikap dapat berubah melalui 3 proses, yaitu kesediaan, identifikasi, dan internalisasi (Azwar, 1995).

Buku Panduan Pencegahan Kecelakaan pada Anak Balita berisi selain tulisan juga gambar-gambar disertai hasil survey kejadian kecelakaan dan cara pencegahan yang ditulis secara rinci. Isi buku tersebut dapat menjadi faktor yang berpengaruh terhadap ide, pikiran, dan pendapat seseorang sebagai komponen yang mempengaruhi sikap. Faktor-faktor yang sangat berpengaruh terhadap pembentukan sikap adalah faktor eksternal yaitu yang berada di luar individu, karena sadar atau tidak sadar yang bersangkutan mengadopsi sikap tertentu. Selain itu sikap dapat dipengaruhi oleh pengalaman pribadi, kebudayaan, orang lain yang dianggap penting, media massa, institusi atau lembaga pendidikan, dan lembaga agama.

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