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IASP Interprofessional Pain Curriculum Outline

Note: This Interprofessional (IP) Pain Curriculum Outline is based on the 4 components of the Core Curriculum. This Outline is to be used with health science students who are in their first professional program (pre-licensure/undergraduate/entry-practice level) to facilitate shared opportunities for students from more than one profession to learn together (e.g. dentistry, medicine, nursing, occupational therapy, pharmacy, physical therapy, psychology, and/or social work). The Outline provides a basic overview of suggested topics for interprofessional learning that can be developed further and in more detail unprofessionally. It does not replace the unprofessional curricula that provide additional depth in content required by each individual profession and discipline. **The Outline can be implemented in a variety of ways considering the professions involved, patient populations being studied, and regional needs.**

The Outline provides curriculum topics under each component that are common in pain management. An important purpose of this Outline is to facilitate interprofessional learning; therefore, the detail applied under each component will depend on the student learning tasks. For example, these may include interprofessional team planning for pain assessment and management of cases based on real patients. It is expected that implementation methods will vary. However, a suggested model is to balance selected core lectures with concepts essential to all (e.g. overview of mechanisms, pharmacology) with small group work to develop interprofessional patient-focused assignments. **While all students need to reflect on the various components of the outline, the depth of application of the suggested detail will depend on the professions involved and the specific patient focus of the students' assignments.** Education Initiatives Working Group, IP Outline Subgroup: Eloise C. Carr, John H. Hughes, Robert N. Jamison, Hellen N. Kariuki, Jordi Miró, Leila Niemi-Murolo, Germán Ochoa, Anibal Patricio Scharovsky, Philip J. Siddall (Co-Chair), Judy Watt-Watson (Co-Chair)

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Introduction

Interprofessional education (IPE) has been defined as two or more professions learning with, from and about each other to improve collaboration and the quality of care (1,2). IPE is sometimes confused with the intraprofessional model that involves different departments within the same profession (e.g. medical departments of surgery, anesthesia, neurology). Effective pain management can be complex, requiring collaborative approaches that exceed the expertise of any one profession. Research evidence for IPE supports positive health outcomes for patients and health systems from collaborative teams (2). However, for health care professionals to collaborate in meeting patients' needs, they first must understand each other's roles and expertise. This understanding is the foundation for valuing and respecting others' contributions to the management of complex problems, such as those for people with persistent pain. Interprofessional education fosters this understanding through interactive group work unlike multiprofessional education usually delivered in a large group didactic lecture format (3).

An interprofessional pain curriculum provides a common basis for different professions to learn the same language as well as a basic understanding of pain mechanisms and major biopsychosocial concepts important to all. Interprofessional education provides a basis for collaborative competencies that include a) recognizing and respecting the roles, responsibilities, and competence of others in relation to one's own, and b) knowing when, where, and how to involve these other professionals (4). Interprofessional group opportunities allow students to learn of each other's expertise, both shared and unique, that is essential to interprofessional and/or multiprofessional pain management. Working as a team to plan, manage, and monitor care (interprofessional) and/or communicating/coordinating care from individual health care professionals (multiprofessional) can result in more effective patient outcomes.

A subgroup of the IASP Education Initiatives Working Group was directed to develop an interprofessional pain curriculum outline based on the four components of the IASP CORE Curriculum. The iterative development process (2010-2012) included extensive discussion until consensus was reached on foundational pain content that was complete, clear and relevant to all professions (Phase 1-2). The interprofessional draft was then cross-referenced with the revised unprofessional drafts to ensure inclusion of their common priorities (Phase 3). Feedback was elicited from the total Working Group (Phase 4) before circulating it to the IASP Education SIG membership for input (Phase 5). Responses (N=61) from a good variety of professionals and countries were utilized by the total Working Group and the final submission to Council Executive was approved on August 14, 2012 (Phase 6). It is expected that the Outline will be further tested and evaluated as used by the membership.

Principles

1. All health care professionals have an obligation to be empathic, assess, and work with patients and families to manage pain.
2. Interprofessional learning opportunities provide students with an understanding and appreciation of the expertise of professions other than their own.
3. Comprehensive pain assessment and management is multidimensional (i.e. sensory, emotional, cognitive, developmental, behavioral, spiritual, cultural) and requires health professional collaboration.
4. Effective pain management outcomes occur when health care professionals work together with patients, families, communities and health care providers (e.g. regulatory, insurance).
5. Interprofessional pain education is most successful when it reflects real world practices and is integrated early in the educational experience.

Objectives

Upon completion of this pain curriculum, the entry-level health care professional student will be able to:

1. Discuss the multidimensional nature of pain and its components, implications for patient-families, and relationship to clinical interventions.
2. Discuss clinical assessment and measurement approaches and misbeliefs common to health care professionals.
3. Describe multiprofessional and interprofessional strategies for the planning, intervention and monitoring of pain management outcomes.
4. Develop and discuss as part of an interprofessional student group the rationale for patient-focused pain assessment and management plans based on authentic patient cases (actual or scenarios).
5. Discuss inadequately managed pain assessment and management from an ethical, safety, social and political perspective.

Curriculum Content Outline

I. Multidimensional Nature of Pain

A. Epidemiology

1. Pain as a public health problem with social, ethical, legal and economic consequences
2. Epidemiology with overview of statistics related to acute, recurrent and/or persistent (chronic) and cancer pain
3. Barriers to effective pain assessment and management: individual, family, health professional, society, political institutions

B. Development of pain theories

1. Historical development of pain theories and basis for current understanding of pain
2. Definition of pain and pain terms
3. Classification systems of pain
4. Differences between nociception, pain, suffering and harm
5. Pain and behavior

C. Mechanisms

1. Anatomy and physiology to include neural mechanisms [peripheral pain mechanisms, dorsal horn processing, ascending and descending modulation and central mechanisms]
2. Multiple dimensions of pain to include physiological, sensory, affective, cognitive, behavioral, social/cultural/political
3. Pathological consequences of unrelieved pain, and implications of being a multidimensional experience (biological, psychological and social)
4. Factors influencing neurophysiology (e.g. genetics, age, sex, ethnicity)

D. Ethics

1. Ethical standards of care (provision of measures to minimize pain and suffering) for health care professionals
2. Ethical standards and guidelines related to use of analgesics (e.g. inadequate analgesic prescribing; over-medication; confusion regarding physical dependence, tolerance and addiction, abuse screening, use of placebos)
3. Inadequate pain management for specific groups including infants, children, elders, those with communication difficulties and/or learning disabilities
4. Legal issues related to disability, compensation
5. Political and societal issues related to access to pain management and attitudes to marginalized populations
6. Experimental pain issues related to appropriate and meaningful measures and methods

II. Pain Assessment and Measurement

A. Interprofessional and Multiprofessional Collaboration

1. Assessment of patient priorities as a team where possible (interprofessional) and/or communication of planning between individual health care professionals (multiprofessional) to ensure:
 - Comprehensive assessment especially when pain problems are complex e.g. pain sensory characteristics, treatment history, impact of pain on functional status, perception of self/relationships, and past pain experiences
 - Clear documentation of pain assessment and measurement data
 - Ongoing communication for comprehensive and consistent approaches
 - Monitoring of efficacy and effectiveness of management plan
 - Consideration of appropriate assessment and measurement approaches for people with special needs (e.g. infants, children, older adults, developmentally challenged, cognitively impaired)
 - Development of interprofessional consultant networks (informal/formal) when needed for adequate assessment with complex patients

B. Assessment

1. History
 - Pain location, onset and duration, severity, quality, alleviating and aggravating factors
 - Impact on mood, usual activities/function/quality of life/sleep
 - Previous pain and treatment history
 - Ongoing response to treatment, adverse effects
 - Comorbidities impacting pain (e.g. chronic disease, surgery, trauma, mood, cognitions, abuse history, medications)
 - Personal characteristics (e.g. age, sex, race, religion, culture, language)
 - Expectations of pain management and current understanding of the condition
2. Physical examination
 - Neurological and musculoskeletal assessment
 - Posture and range-of-motion evaluation
 - Focused according to the presenting condition
3. Review of clinical records
4. Investigations
 - Laboratory tests
 - Imaging studies, e.g:
 - X-rays (flexion/extension views if needed)
 - Ultra Sound (U/S)
 - MRI, CT, Bone scan

C. Measurement

1. Approaches
 - Qualitative
 - Quantitative
2. Testing issues
 - Feasibility
 - Validity
 - Reliability
 - Sensitivity
 - Clinical utility
3. Tools (uni- and multi-dimensional)
 - Numerical Rating Scales (NRS)
 - Visual Analogue Scales (VAS)
 - Verbal/categorical scales
 - Faces scales
 - Pain drawings
 - Comprehensive pain questionnaires
 - Functional measures (e.g. pain-related disability, specific activities, health status)
 - Measures of psychological status (e.g. depression, anxiety, beliefs)
 - Measures for special populations (e.g. non-verbal, infants, cognitively impaired)

III. Management of Pain

A. Goals of Pain Management

1. Reduction of pain intensity

2. Enhancement of physical functioning
 3. Improvement of psychological functioning
 4. Reduction of healthcare utilization
 5. Promotion of return to work/school and/or role within the family/society
 6. Improvement of health-related quality of life
- B. Pain Management Planning Decisions
1. Develop, monitor and modify the management plan as an interprofessional and/or multiprofessional team
 2. Involve patient and family caregivers in establishing clear, realistic goals
 3. Use combinations of methods where appropriate including physical, psychological, pharmacological and interventional
 4. Provide patient information/education including: communication methods, management options, management of potential adverse effects
 5. Develop transparent treatment plan with realistic goals
- C. Treatment Considerations
1. Type(s) of pain
 2. Multidimensional nature of pain (e.g. biological, psychological, social)
 - Use of combinations of pharmacological and non-pharmacological methods
 3. Patient issues
 - Access to clinics, treatment center, advantages of early intervention
 - Patient involvement / understanding of management plan/motivation to change
 - Cultural / societal limitations
 4. Caregiver issues
 - Understanding of pain (false beliefs)
 - Fears and anxieties (e.g. drug addiction, side effects)
 - Understanding of patient goals/needs
 5. Health professional issues
 - Understanding of pain (false beliefs)
 - Fears and anxieties (e.g. drug addiction, adverse effects)
 - Understanding of current evidence supporting management strategies
 6. Political issues
 - Pain management as a human right
 - Access to clinics, treatment centers
 - Access to pain relieving medications
 - Access to interventional treatment
 7. Substance abuse issues
 - Define aberrant drug-related behavior and substance dependency (abuse)
 - Assessment/screening of risk of abuse
- D. Pharmacological Methods
1. Include for each analgesic selected the following:
 - Mechanisms of action
 - Indications for use
 - Pharmacokinetics including mechanisms of toxicity where appropriate
 - Adverse effects and their management
 - Equianalgesic dosing
 - Interactions with other drugs
 - Formulations (short and long acting)
 - Administration routes
 - Age-specific therapies (including, neonate, infant and elderly)
 - Disease, surgery, cancer and/or trauma pain-specific strategies
 2. Clarify tolerance, physical dependence and psychological dependence
 3. Utilize combinations of analgesics and adjuvants where appropriate:
 - Over the counter medications (acetaminophen/paracetamol)
 - Non-steroidal anti-inflammatory drugs (NSAIDS)
 - Opioids
 - Antidepressants
 - Anticonvulsants
 - Local anesthetics
 - Topical agents
 - Other

4. Knowledge of legislative requirements and current guidelines regarding controlled drugs
- E. Non-pharmacological Methods

1. Utilize combinations of physical and psychological strategies, where appropriate:
 - Clinician therapeutic use of self (e.g. active-listening, being empathic)
 - Physical strategies to support home and occupational function and activity (e.g. heat, cold, positioning, exercise, massage, wound support, exercise, mobilization, manipulation, reach devices, other comprehensive rehabilitation approaches)
 - Psychological and behavioral strategies (e.g. cognitive-behavioral strategies, coping strategies, biofeedback, patient-family education and counseling)
 - Neuromodulation (e.g. transcutaneous electrical nerve stimulation [TENS], acupuncture, brain and spinal cord stimulation)
 - Neuroablative strategies (e.g. neurolytic nerve blocks, neurosurgical techniques)
 - Procedural/Interventional (e.g. injections)
 - Surgery
 - Complementary alternative medicine (CAM)
 - Palliative radiotherapy (e.g. cancer pain)
 - Information and communication technologies (e.g. virtual reality, computer-assisted interventions, smartphones)

F. Evaluation of Outcomes

1. Monitor management outcomes related to pain severity and function levels, adverse effect management, and impact on mood, family and quality of life issues
2. Utilize an interprofessional and multiprofessional team approach to insure integration and coordination of care
3. Consider barriers related to treatment availability and costs at the patient-family, institution, society and government levels

IV. Clinical Conditions

The following list includes suggestions under each to help with decisions about the selection of patient cases for interprofessional small group learning. The choice of clinical condition and detail will depend on the students and specific patient populations to be studied.

A. Taxonomy of Pain Systems

1. Distinction between acute, recurrent, incident, and or persistent (chronic) pain (may have combination of more than one type)
2. Distinction between nociceptive (somatic, visceral) and non-nociceptive (neuropathic) pain (may have both nociceptive and neuropathic pain)
3. Distinction between commonly used pain terms in clinical practice (e.g. allodynia, analgesia, dysesthesia, hyperalgesia, paresthesia, pain threshold, pain tolerance)
4. Involvement of biological, psychological and social factors influencing the perception of pain

B. Pain in Special Populations

1. Pain in infants, children and adolescents
2. Pain in older adults
3. Pain in individuals with limited ability to communicate
4. Pain in pregnancy, labor, breast feeding
5. Pain with psychiatric disorders
6. Pain in individuals with substance abuse

C. Acute Time-Limited Pain

1. surgery
2. trauma
3. infection
4. inflammation
5. burn

D. Cancer Pain

1. primary pain
2. local invasion
3. metastatic spread
4. treatment-related
5. end-of-life

E. Visceral Pain

1. referred patterns
2. cardiac and non-cardiac chest pain
3. abdominal, peritoneal, retroperitoneal pain
4. pelvic pain (male and female)
5. sickle cell crisis

F. Headache and Facial Pain

1. headache
2. orofacial pain
3. trigeminal neuralgia

G. Neuropathic Pain

1. Primary Lesion Central
 - multiple sclerosis
 - post-stroke
 - spinal cord injury
 - traumatic brain injury
 - syringomyelia
2. Primary Lesion Peripheral
 - degenerative disc disease with radiculopathy in neck and low back
 - peripheral neuropathies (diabetes, cancer, alcohol, HIV)
 - post herpetic neuralgia
 - acute disc herniation with radiculopathy
 - complex regional pain syndrome II (CRPS II) (causalgia)
 - phantom limb
3. Mixed or unclear origin
 - complex regional pain syndrome I (CRPS I) (reflex sympathetic dystrophy)
 - irritable bowel syndrome
 - fibromyalgia
 - other

H. Musculoskeletal

1. rheumatoid arthritis, osteoarthritis
2. neck pain, whiplash and referred pain
3. low back pain and referred pain
4. injuries from athletics
5. myofascial pain syndrome

References

1. Barr B, Low H, Howkins E. Interprofessional education in pre-registration courses: a CAIPE Guide for Commissioners and Regulators of Education. London: United Kingdom Centre for the Advancement of Interprofessional Education 2012.
2. World Health Organization Framework for Action on Interprofessional Education and Collaborative Practice http://www.who.int/hrh/resources/framework_action/en/ (Accessed April 22, 2012)
3. Watt-Watson J, Hunter J, Pennefather P, Librach L, Raman-Wilms L, Schreiber M, Stinson J, Dao T, Lax L, Gordon A, Mock D. (2004). An integrated undergraduate curriculum, based on IASP curricula, for six health Science Faculties. Pain 110, 140-148
4. Barr H, Freeth D, Hammick M, Koppel I, Reeves S. Evaluations of interprofessional education: a United Kingdom review for health and social care. London: United Kingdom Centre for the Advancement of Interprofessional Education with the British Educational Research Association, August: 2000.

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