Using Focus Group Discussion and Delphi Method to Establish Core Competencies for EMT-P in Taiwan

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- **Application of Focus group interviews and Delphi process as qualitative research instruments to facilitate the formulation of core competency flamework for EMT-P in Taiwan.**
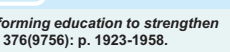
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Evolution of Medical Education

Tradition

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Outcome-Based

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Competency-Based

Frenk, J., et al., *Health professionals for a new century: transforming education to strengthen health systems in an interdependent world.* The Lancet, 2010. 376(9756): p. 1923-1958.

Literature Review

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Focus group interviews

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Delphi process

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EMT-P core competency flamework

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EMS Education in Taiwan

- **EMT-P training since 2002**
- **Teacher-centered**
- **No concensus on core competency for EMT-P**

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Focus Group Interviews

- **Three expert panels in EMSS**
  - Emergency Physician（n=10）
  - Administrative Officials of Emergency（n=10）
  - EMT-P（n=10）

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Focus Group Interviews

- **Three semi-structured questions**
  - Which roles can EMT-P act as ?
  - Which KSA should EMT-P possess ?
  - What are the goals of EMT-P ?

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Delphi Process

- **During meeting:**
  - A series of edits and additions of the core competency comprehensive list underwent until the consensus was achieved amongst the expert panel.

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Delphi Process

- **Delphi panel: 9 experts**
- **Before meeting:**
  - read and realize the full contents of the possible core competencies for EMT-paramedics

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Delphi Process

- **During meeting:**
  - Online ratings：Agreement Scale for EMT-P Core Competency
    - Excluded if average agreement<3
    - Achieved consensus after four rounds ratings

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Main Category	Competency-oriented
A. Prehospital care providor （到院前照護提供者）	1.Emergency assessment & diagnosis ; 2.Emergency intervention and treatment ; 3. critical clinical judgement; 4.Appropriate transportation; 5. Operation safety; 6. Regulation and standard of practice
B. Leader（領導者）	1.Task assignment and decision making ; 2.Problem solving 3.Emergency management and command
C.Communicator（溝通協調者）	1.Clinical communication ; 2.Coordination
D.Educator（教育者）	1.Professional demonstration ; 2.Teaching and instruction 3.Learning and improvement in practice
E. Reseracher（品管研究者）	1.Data collection ; 2. Statistic analysis; 3.Improvement and promotion ;4.Evaluation and monitoring
F.Advocator（倡議者）	1.Health promotion in community ; 2. policy advocacy; 3. system and regulation advocacy; 4. pre-hospital advisories

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Main Category	Agreement		Competency-oriented	Agreement			
	Mean	Order		Mean	IR	SD	Order
A. Prehospital Care Providor （到院前照護提供者）	4.85	1	1.急症的救護評估與診斷	5.00	0.00	0.000	1
			2.急症的處置與照護	5.00	0.00	0.000	1
			3.危急判斷與決策	4.89	0.00	0.314	3
			4.適當後送	4.67	0.50	0.667	6
			5.執業安全	4.78	0.50	0.416	4
			6.執勤規範	4.78	0.00	0.629	4
B. Leader （領導者）	4.33	3	1.救護分工與決策	4.33	1.00	0.667	11
			2.問題解決	4.44	1.00	0.685	7
			3.緊急應變指揮	4.22	1.00	0.916	17
C. Communicator （溝通協調者）	4.45	2	1.救護溝通表達	4.56	1.00	0.497	7
			2.聯繫協調	4.33	1.00	0.667	11
D.Educator （教育者）	4.33	3	1.執勤示範	4.22	1.00	0.629	17
			2.緊急救護教學	4.33	1.00	0.667	11
			3.學習與改善	4.44	1.00	0.685	7
E.Researcher （品管研究者）	4.26	6	1.資料收集	4.22	1.00	0.629	17
			2.統計分析	4.11	0.50	0.567	20
			3.改善策進	4.33	1.00	0.667	11
			4.評估監測	4.44	1.00	0.685	7
F. Advocator （倡議者）	4.33	5	1.衛教宣導	4.33	1.00	0.667	11
			2.策略、制度、政策建言	4.33	1.00	0.471	11

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Core Competency Framework

Main Category	Competency-oriented
A. Prehospital care providor（到院前照護提供者）	1.Emergency assessment & diagnosis；2.Emergency intervention and treatment；3.Critical judgment and dispatch；4.Appropriate transportation and disposition; 5. Operation safety; 6. Regulation and standard of practice
B. Leader（領導者）	1.Task assignment and decision making；2.Problem solving 3.Emergency management and command
C.Communicator（溝通協調者）	1.Clinical communication；2.Coordination
D.Educator（教育者）	1.Professional demonstration；2.Teaching and instruction 3.Learning and improvement
E. Reseracher（品管研究者）	1.Data collection；2. Statistic analysis; 3.Improvement and promotion；4.Evaluation and monitoring
F.Advocator（倡議者）	1.Health promotion in community；2.Prehospital advisories

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Applications

- **Core competency framework**
  - Curriculum assessment & development
    - Lack of educator competency training
  - Learning assesment & improvement
    - Competency-oriented assessments
    - CBL using modified Healthcare Matrix

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Methodology

- **In formulation of core competency framework**
  - "Focus group interviews" is an effective means to collect maximum coverage of opinioins.
  - "Delphi process" is a valid method to reach a consensus.

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- **Focus group interviews and Delphi process are two effective qualitative research instruments to establish core competency flamework for EMT-P in Taiwan.**

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Core Competency Framework

- **"Roles" as "Main Category"**
  - Traditional roles: Prehospital care providor
  - Emphasize the roles of leader, communicator and educator
  - New roles: Researcher and advocator

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Thanks for Your Attention