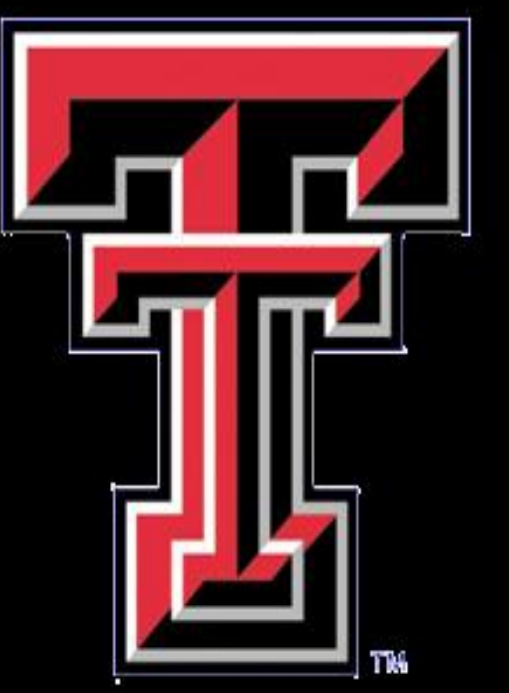




# Evaluating Professional Healthcare Provider Curricula In Response to An Increasing Interprofessional Work Environment

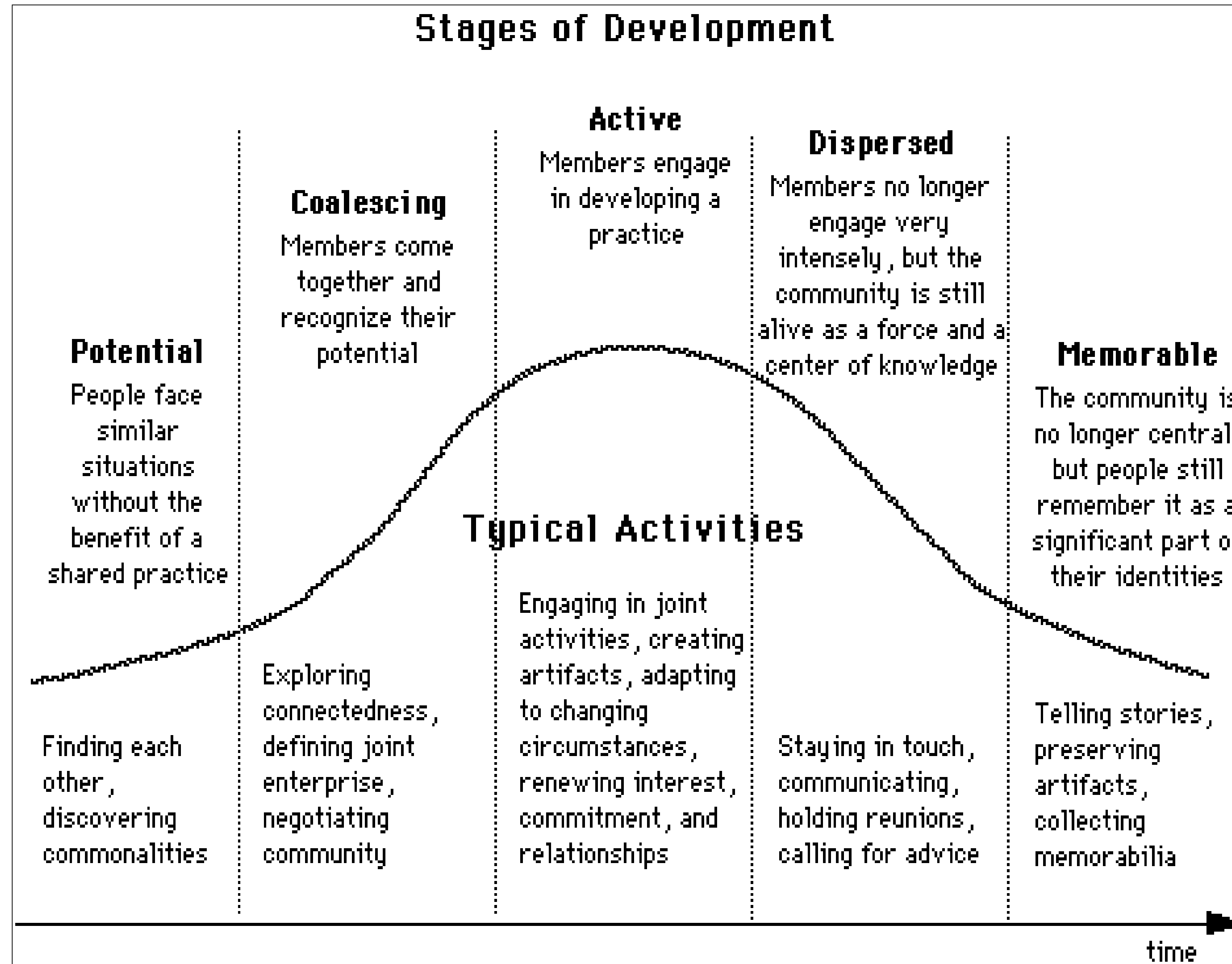


Texas Tech University Health Sciences Center Quality Enhancement Plan  
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## Introduction and Purpose

- Contemporary shifts in healthcare provider roles and the expansion of these roles are moving primary care in a new direction, requiring both integrated and streamlined inter-professional collaboration.
- Our research aims to identify the potential benefits, barriers and complexities of incorporating a cross-discipline, inter-professional education (IPE) component into the clinical curriculum at health science institutions such as Texas Tech University Health Sciences Center.
- Interprofessional Training Units (ITUs) and Clinical Education Wards (CEW) have been implicated in greater mutual trust, respect, and basic teamwork between students in different health occupations disciplines. [2][7]
- A majority of student participants agreed that IPE will benefit patient care but projected effects have not been measured.[4][7]
- For the same cost, Texas educates 1 physician or 8 APNs. IPE is necessary to provide cost effective care, especially in primary care settings. [1]
- Essential elements for a successful collaborative practice (family physician/nurse practitioner model) involve communication, autonomy, mutual trust and respect, and assertiveness.[6]
- Health care team dynamics require teamwork and planning: (1) clear goals with measurable outcomes (2) clinical and administrative systems (3) division of labor (4) training and (5) communication [4]

## Conceptual Framework



## Results

Knowledge	Before CEW course	After CEW course	P
Regarding nursing care	Mean 6.7	7.9	P < 0.001
	SD 1.6	0.9	
	n 486	468	
Regarding medical care	Mean 6.7	7.6	P < 0.001
	SD 1.6	1.1	
	n 729	698	
Regarding physiotherapy	Mean 5.9	7.5	P < 0.001
	SD 1.8	1.2	
	n 764	736	
Regarding occupational therapy	Mean 4.6	6.4	P < 0.001
	SD 2.2	1.8	
	n 846	818	



Students' ratings of their knowledge about one another's professions before and after the CEW course; ratings on a Likert scale of 1-9 [7]

- 64% of students perceived their professional roles more clearly after they took an integrated course. [7]
- 96.2% of the evaluations considered an inter professional teamwork atmosphere beneficial towards helping professionals develop mutual trust and respect one another [8].
- Potential drawbacks: transaction costs of interpersonal communication and teamwork size; challenges with human relationships and personalities; interferences with patient preferences for continuity of care [6][4]
- In designing a curriculum, educators should take into consideration the quality of tutoring and support for students as a team within a clinical setting [7]

**Key Elements of Team Building** appointments Grumbach, et al [4]

- Defined Goals**
  - Overall organizational mission statement**
    - Examples: Improvement of patient's health, Reduction in barriers to access to care, Improvement in practice's financial performance, Physician and staff satisfaction
    - Specific, measurable operational objectives**
      - Examples: At least 80 of diabetic patients in practice will have hemoglobin A<sub>1c</sub> lower than 8, Ninety percent of people calling for a nonurgent appointment will receive the appointment within 1 week, Practice will achieve a targeted level of practice revenue
      - Each team member will achieve an explicitly identified goal for personal professional development
  - Systems**
    - Clinical systems**
      - Examples: Procedures for providing prescription refills, Procedures for informing patients of laboratory results
      - Administrative systems**
        - Examples: Procedures for making patient
    - Policies** on how decisions are made in the medical practice
    - 3. Division of labor**
      - Definition of tasks**
        - Assignment of roles** (Determining which people on the team perform which tasks within the clinical and administrative systems of the medical practice)
      - 4. Training**
        - Training for the functions that each team member routinely performs**
          - Cross-training to substitute for other roles in cases of absences, vacations, or periodic heavy demands on one part of the team
      - Communication structures**
        - Examples: Routine communication through paper and electronic information flow, Minute-to-minute communication through brief verbal interactions among team members, Team meetings
        - Communication processes**
          - Examples: Giving feedback, Conflict resolution

## Methods

- Searched PubMed for research articles, case studies, and meta-analyses from 2000-2011
- Terms used were "interprofessional education", "interprofessional curriculum", "medical & nursing interprofessional curriculum", & "increasing autonomy of health care providers."
- Searched Google Scholar for research articles and case studies from 2005-2011
- Terms used were "health care teams", "primary care training", "collaboration in training", & "inter-professional programs."
- Reviewed [www.ewenger.com](http://www.ewenger.com) ("Communities of practice") for conceptual framework.
- Reviewed Harvard Business Review ("Communities of Practice: The Organizational Frontier") for theory on inter-professional education

- Effective interdisciplinary practice begins with the educational process
- 'Community of Practice' (CoP) as an interdisciplinary education conceptual framework [9][10]

- Community of Practice
  - People bound informally through shared expertise and like minded goals
  - Membership is self selected
  - Not bound by geographical boundaries
  - Must be cultivated through developing supportive infrastructure
- Three Dimensions
  - Joint enterprise
  - Mutual engagement
  - Shared repertoire of resources



- Interdisciplinary conceptual framework not an organizational structure
  - Allows development of flexible boundaries
  - Provides opportunities for learning
- Positive outcomes of a CoP
  - Improves member problem solving
  - Improves sharing of 'best practices'
  - Develops professional skills and shared competencies
  - Develops professional networks
  - Potentially improves future job satisfaction

## Conclusions

In conclusion, interprofessional teamwork is found to be a tool that not only benefits patients, but also healthcare providers. These benefits greatly outweigh potential drawbacks, and thus must be mined for their full potential. Students unexposed to real-world interprofessional teamwork during their clinical training will be at a disadvantage and may be less likely to utilize their greatest resources: their colleagues. TTUHSC may greatly benefit from an Interprofessional Teamwork Education clinical clerkship in its curriculum across the Health Sciences Center to better prepare students for their future roles in the healthcare system. This new paradigm must also be studied over a longer period of time in order to better understand potential lasting CoP in practice. Synergistic studies among interdisciplinary teams can greatly enhance the quality of our current healthcare system, improve patient outcomes, increase provider job satisfaction, and mediate health care cost containment.

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