

The Effects of Interdisciplinary Training on MCH Professionals, Organizations & Systems



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History of ID Training

Given the multi-faceted aspects of children's growth and development and the families in which they reside, the professional field of Maternal and Child Health has cultivated and encouraged not only the participation of many disciplines to promote the well-being of children and families and to address their needs, but also the collaboration among disciplines, that is, interdisciplinary practice. In the 1940s, the federal government first funded Public Health interdisciplinary training programs, designed to enhance the administrative and research skills of individuals with clinical degrees and expertise (Athey, Kavanagh, Bagley, & Hutchins, 2000). Three additional interdisciplinary training programs were developed—LEND (the origins of which were support for services for individuals with mental retardation in the 1960s), LEAH (established in the late 1960s) for adolescent health, and PPCs (established in the 1970s) for pulmonary disease. Although these four "interdisciplinary" training programs bring together students and faculty from a range of disciplines and provided exposure to a broad variety of skills, little effort has been made either to define exactly what is meant by interdisciplinary exposure/training or to assess the effects of this training experience on participants, the organizations within which they work, or the MCH populations they serve.

The UNC Interdisciplinary Leadership Program

In 2000, faculty and staff from the five UNC MCHB-funded training programs (LEND, Nutrition, Pediatric Dentistry, Public Health, Social Work) organized the UNC-CH MCH Leadership Training Consortium to serve as a platform for shared resource development and collaborative engagement in interdisciplinary training for leadership in MCH., and were joined in 2006, by a representative of the NC Title V program. The Consortium developed the Interdisciplinary Leadership Development Program (ILDLP) to bring together a total of 25-30 fellows from each of the UNC-CH MCHB-supported training programs, as well as family members nominated by Title V. The program has evolved to include:

- ❖ Orientation
- ❖ Leadership Intensive
- ❖ Conflict Management and Group Facilitation
- ❖ Cultural Competence Workshop including the Minority Health Conference
- ❖ Family Professional Partnership Workshop, Reflection

"The three day leadership intensive had the most influence on my work...[the] intensive allowed me to understand much more clearly than ever before what role I tended to play in teams and how my tendencies to operate in a certain way played out as both strengths and weaknesses. The intensive also provided me with strategies and tools to better capitalize on some of those strengths as well as to challenge myself on some of the tendencies that tend to be weaknesses in my work. Most importantly, the work we did as an interdisciplinary group helped me to better understand how other people operate and what approaches different than my own can bring to a team. Having that understanding has helped me continually challenge myself to attend to my role on a team, not only as an active participant, but also as a "receptive" member of the team...by which I mean that I now believe that how I recognize, acknowledge, support, and sometimes challenge other team members who have very different approaches from me is equally important to the success of our interdisciplinary work."

- 2007 MSW/MSPH IDLP graduate

[The IDLP helped me] "to understand my own strengths and the variability of working/personality styles so I am slower to 'blame' others who work differently than I do; this has altered the way that I approach working as a team and has allowed me to shift to a more understanding and accepting approach of those who are 'wired' differently."

- 2009 LEND IDLP fellow

Purpose

The purpose of this project was to examine the effects of the UNC Interdisciplinary Leadership Program (IDLP) on the interdisciplinary attitudes and practices of the participants and their impact on the organizations within which they work. Two hypotheses guided this research. Specifically, the Interdisciplinary MCH Leadership Program has:

- enhanced the capacity of participants to engage in interdisciplinary practice and research.
- enhanced the capacity of participants, either directly or through their organizational work, to effect change at the societal/community level through policies, practices and programs.

Methodology

DATA :

We developed a **web-based survey** with scales and open-ended questions, and a **telephone interview** in order to elaborate further on the survey, for a sub-sample. The survey asked questions about graduates' work settings, jobs, and time spent in professional activities corresponding to the MCH pyramid. It also asked about graduates' beliefs/attitudes and skills related to interdisciplinary practice and how participation in degree programs and the IDLP had changed these constructs. Graduates were asked to explain if and how participation in the programs had helped them influence outcomes at several levels, including for specific families/consumers, programs, organizations, partnerships, or policies. Finally, we inquired about potential barriers to instituting change.

SAMPLE :

We attempted to locate all graduates of the five MCHB training programs between 2001 and 2009, including all graduates who had also completed the IDLP. The sample of 208 reflected an overall response rate of 59%.

ANALYSIS :

Survey data were analyzed using SAS (Cary, NC). Open-ended questions and interviews were analyzed using a team approach for coding for use with Atlas.ti software.

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Survey Attitude/Belief Questions

Rate how much you agree with the statement and how much your program strengthened this attitude/belief.

#	Question
1	Providing services in interdisciplinary groups helps professionals become more sensitive to the diverse needs of consumers/patients than providing services as a single discipline.
2	The benefits of interdisciplinary patient care or program plans are worth the extra time it takes to communicate across disciplines.
3	The interdisciplinary approach reduces duplication and fragmentation in the delivery of care/services.
4	Providing services as an interdisciplinary group gets better results for consumers than working as single disciplines.
5	Interdisciplinary education should be a part of every health professional's pre-service training.
6	I value the contributions of other disciplines to my work.
7	When I look for my next position, I will purposefully look for an opportunity where collaboration across disciplines is the norm.
8	I welcome the opportunity to collaborate with members of other disciplines.

"The interdisciplinary leadership program in which I participated was eye opening. Through different leadership exercises, we were exposed to the various ways in which students from different health disciplines are encouraged to think and work. It taught us not only the importance of having different view points, but also how to approach group work, problem solving, and conflict management with sensitivity and an open mind to different modes of thinking."

-- 2006 MPH IDLP graduate

Tables 1 and 2 show that controlling for individual academic program, ILDP participation was associated with enhanced attitudes/beliefs (p=0.067) and increased frequency of use of ID skills (p=0.008). Controlling for ILDP participation, academic programs were associated with enhanced attitudes/beliefs (p=0.047), strengthening attitudes/beliefs (p<0.001), frequency of use of ID skills (p=0.048), and strengthening ID skills (p<0.001).

Table 1: Model-predicted Effects of ILDP and Academic Program on ID Attitudes/Beliefs

	ILDP	Non-ILDP	P-value for ILDP Attendance	P-value for Academic Program
Attitudes/Beliefs - Agreement				
LEND	4.49	4.49	0.067	0.047
Nutrition	4.31			
Pediatric Dentistry	4.34			
MPH	4.55	4.55		
MSW/MSPH	4.58			
Attitudes/Beliefs - Strengthening				
LEND	4.05	3.66	0.134	<0.001
Nutrition	3.24			
Pediatric Dentistry	4.14			
MPH	3.26	3.53		
MSW/MSPH	3.35			

Survey Skills Questions

Rate how often you have used these skills in the past three months.

#	Question
1	Resolve conflicts in interdisciplinary groups.
2	Facilitate family-provider partnerships.
3	Effectively work with consumers with cultural backgrounds different from my own.
4	Effectively work with other professionals with cultural backgrounds different from my own.
5	Share ideas from my discipline with members of other disciplines.
6	Ask for insight or help from members of other disciplines to address a problem.
7	Establish decision-making procedures in an interdisciplinary group.
8	Develop a shared vision, roles and responsibilities within an interdisciplinary group.
9	Evaluate how well an interdisciplinary group is working together.
10	Intervene to improve interdisciplinary group function.
11	Assemble interdisciplinary group members appropriate for a given task.
12	Coach co-workers in interdisciplinary practice.
13	Use self-reflection to enhance my contributions to interdisciplinary work.
14	Critically evaluate information from other disciplines.

Table 2: Model-predicted Effects of ILDP and Academic Program on ID Skills

	ILDP	Non-ILDP	P-value for ILDP Attendance	P-value for Academic Program
Skills - Frequency*				
LEND	3.41	2.87	0.008	0.048
Nutrition	3.08			
Pediatric Dentistry	2.79	3.06		
MPH	3.27			
MSW/MSPH	3.08			
Skills - Strengthening				
LEND	3.36	3.36	0.392	<0.001
Nutrition	2.78			
Pediatric Dentistry	3.52			
MPH	2.91	2.91		
MSW/MSPH	2.77			

*Evidence of statistical interaction between ILDP attendance and academic program

Graduates Improved Outcomes for Consumers/Families

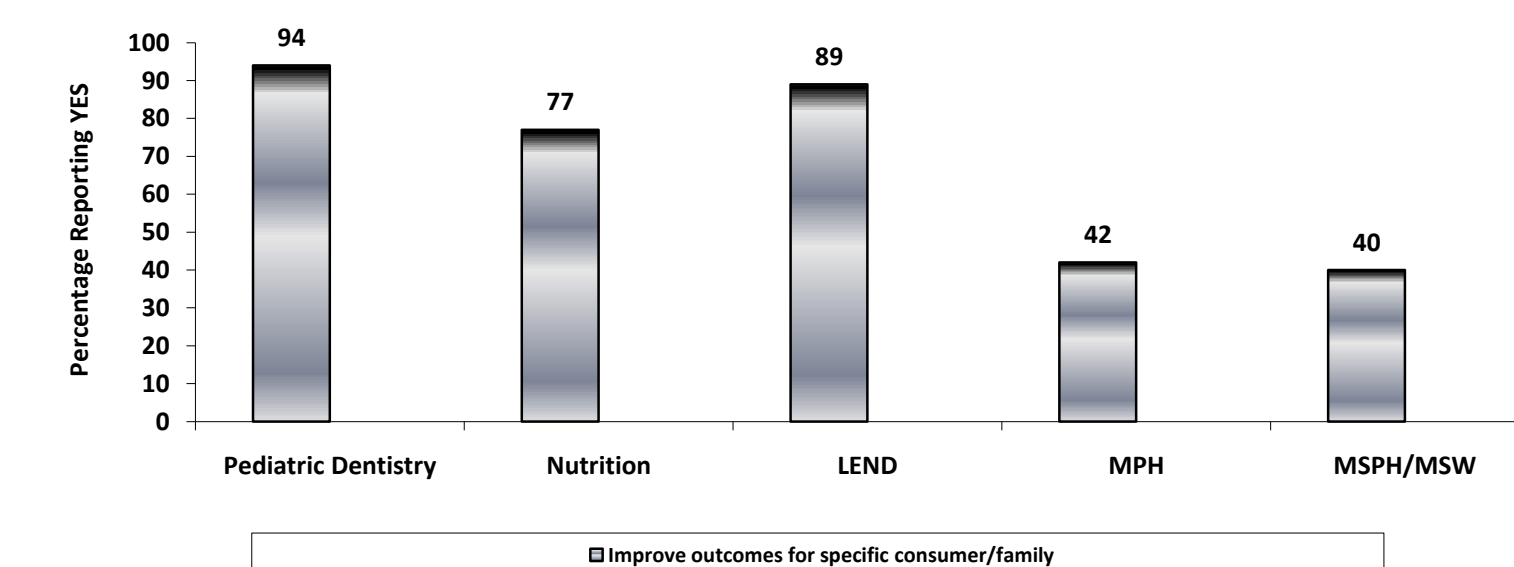


Table 3 shows that graduates reporting that they had helped to create change in four domains of MCH systems had stronger attitudes/beliefs about ID practice and greater frequency of use of ID skills contrasted with graduates who reported that they had not created change.

Table 3: Attitudes/Beliefs and Frequency of Use of ID Skills Affected Systems

	Attitudes/Beliefs		Skills		
	Mean (SD, N)	P-value	Mean (SD, N)	P-value	
Develop or improve a specific program	Yes	4.55 (0.37, 134)	0.0198	3.24 (0.67, 132)	<0.0001
	No	4.41 (0.33, 45)		2.74 (0.51, 44)	
Improve the way an organization works or is structured	Yes	4.56 (0.33, 95)	0.0616	3.31 (0.67, 94)	<0.0001
	No	4.46 (0.38, 84)		2.88 (0.59, 82)	
Develop or improve a partnership	Yes	4.55 (0.37, 126)	0.0237	3.22 (0.68, 124)	0.0003
	No	4.42 (0.32, 51)		2.83 (0.57, 50)	
Develop a policy	Yes	4.55 (0.34, 69)	0.228	3.32 (0.68, 68)	0.0013
	No	4.49 (0.37, 110)		2.98 (0.63, 108)	

Lessons Learned

- A structured year long leadership program designed to expose LEND, Public Health, Pediatric Dentistry, Social Work and Nutrition students to intentional interdisciplinary encounters, beyond their basic ID programs, strengthened their attitudes/beliefs and increased their frequency of use of ID skills.
- Graduates then used these ID skills to improve outcomes for families and to effect change in MCH systems.
- In order to develop competence in ID team building, one of the 12 Core MCH Leadership Competencies, training programs should consider "thinking outside the box" for ways to bring together different disciplines for training.