ISSUES IN INTERDISCIPLINARY STUDIES
No. 32, pp. 103-133 (2014)

PROFESSIONAL IDENTITY AND PARTICIPATION IN INTERPROFESSIONAL COMMUNITY COLLABORATION

by

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Abstract: Collaboration is now frequently required among representatives of myriad disciplines to intervene more effectively in complex community and public health problems. A fundamental tenet of collaboration across professions is that it is facilitated by socialization to one's own professional identity and to interprofessional collaboration with those in other professions. The purpose of this article is to explore how individuals representing six different professions (informants) understand the relationship between professional identity and interprofessional community collaboration (IPC). It examines whether professional identity changed at all over the course of their careers, and whether those changes affected their perspectives on IPC. Furthermore, this article explores how the informants portray their own profession's strengths and limitations in collaborating with other professions. Using professional networks, snowball sampling, and the reputational method, a cohort of 50 informants participated in an intensive structured dialogue event that included mono- and multi-professional group exercises. This article analyzes the data from a post-event self-administered survey of those experiences. Open-ended questions were coded using content analysis that utilizes both quantitative and qualitative methods. A large majority of the informants (80%) strongly identified with their professions while (20%) indicated a weak identification. At the same time 64% indicated their professional identities had changed in various ways. They described characteristics of their professions that both supported and deterred IPC. In summary, the results of the study suggest professional identity can remain strong even as it becomes more complex, nuanced, or expanded.

Keywords: interdisciplinary, community health, collaboration, professional identification, professional socialization, interprofessional.

Introduction

Governments, foundations, professional educators, and practitioners in the US and other countries have invested extensive resources in promoting interprofessional collaboration in the areas of community and public health to increase intervention effectiveness (Hager, Russell, & Fletcher, 2008; Institute for Healthcare Improvement, 2004; San Martin-Rodriguez, Beaulieu, D'Amour, & Ferrada-Videla, 2005). Both the Institute of Medicine (2003) and the World Health Organization (2010) have urged a stronger collaborative model of health care to improve access and quality that includes strengthened interprofessional education (Freeth, Hammick, Reeves, Koppel, & Barr, 2005; Craddock, O'Halloran, Borthwick, & McPherson, 2006). It is evident that solutions to complex health and social problems need the coordinated interventions of people in more than one profession (Perreault & Careau, 2012; Orchard, Curran, & Kabene, 2005). Among those collaborative professionals who participate in these endeavors are people in the six professions included in this study: social work, medicine, nursing, public health, community psychology, and law.

Increasingly, interprofessional collaboration (IPC) has been identified as a preferred modality for community intervention (Interprofessional Education Collaborative Expert Panel, 2011; Clark, 2006; Hall & Weaver, 2001). IPC is a generic term, defined as bringing diverse professions, groups and organizations together to improve community conditions and to enhance the quality of life especially among disadvantaged, marginalized, and vulnerable populations (Korazim-Kőrösy, Mizrahi, Bayne-Smith, & Garcia, 2014). At the same time, professionals in the US, Canada, and the UK among other countries are grappling with the meaning of professionalism (Hafferty, 2006) and how to prepare the next generation of competent and committed practitioners to best meet the challenges of society (Barr, Low, & Howkins, 2012; Sullivan, 2005; Pfadenhauer, 2006; Stern & Papadakis, 2006). These tensions begin during the formal socialization of students who must be prepared for work with both a mono-disciplinary and an interprofessional orientation, and the tensions continue throughout their professional lives (Barr, Low, & Howkins, 2012; Craddock, et al., 2006; Hall, 2005).

The two aims of this article are to 1) explore among a cohort representing six different professions their professional identity and changes in its strength or weakness over the course of their careers, and 2) examine their assessment of the strengths and limitations of their professional identity in their respective professions, in collaborating with those in other disciplines as well as in supporting their own levels of participation in IPC. The justification for bringing these two aims together in one article rests in our interest, as professional educators, in preparing new and experienced professionals to exercise skills and capacity for interprofessional engagement, while maintaining their own professional autonomy (Braithwaite, et.al., 2013; Engel & Prentice, 2013; Hart, 2011).

The six professional groups represented in this study were chosen because of the frequency with which they appear in the literature on interdisciplinary and interprofessional collaboration as engaged in community-based programs: social work (Emmer, 2003; Powell, Privette, Miller, & Whittaker, 2001); medicine (Nyden, 2003; Gruen, Pearson, & Brennan, 2004; Chesluck & Holboe, 2010); psychology (Howarth, 2009; Stuart, 2009); law (Bracey, 2010; Taylor, 2006); nursing (Conger & Johnson, 2000; Kiehl & Wink, 2000); and public health (Baum, Gollust, Goold, & Jacobson, 2007; Westbrook & Schultz, 2000). In each of these professions, its practitioners have addressed internally the issue of whether it can create an effective model of interprofessional education without simultaneously losing its professional distinctiveness, autonomy, and status (Sullivan, Colby, Wegner, Bond, & Shulman, 2007; Brenner, Sutphen, Leonard, & Day, 2009; Cooke, Irby, & O'Brien, 2010; Weiss, Gal, & Cnaan, 2004).

Many scholars have noted the conflating of the concepts of "discipline" and "profession" as well as the interchangeable use of terms such as "multidisciplinary," "interprofessional," and "interdisciplinary" (Choi & Pak, 2006; Haines, Godley, & Hawe, 2010; Klein, 2001; McMurtry, 2009). While we originally used the term "interdisciplinary" when developing our research, it became clear that we were bringing together people from different professions (e.g. social work, law, medicine, nursing) or from the applied section of their discipline (e.g. community and environmental psychology) who were engaged in applying their knowledge and skill in the real-world of community-level problem solving. Hence, we have shifted toward the term "interprofessional collaboration" (IPC) and "interprofessional education" (IPE), using it as McMurty (2009) defines the term, to mean a diverse group of professionals who come together to improve complex and comprehensive social and health conditions that affect the lives of marginalized and vulnerable communities. It is this complexity that requires more sophisticated thinking about the relationship between the problem as it exists in the real world and the way it is interpreted by the various professions, or as McMurty suggests (citing Newell, 2001, and others), the need to bring together "knowers and phenomena" (p. 1), that is, the need to bring the socio-cultural perspective in line with the hard, fixed irreducibility of physical reality.

Our study began with understanding that the complex social problems confronting communities are beyond the capacity of any one profession or discipline to address, much less solve. We also recognized that there have been competing perspectives on the causation and exacerbation of problems in the spheres of health, education, environment, and economic and social conditions expressed by various professionals and policy-makers driven as much by ideology as science (Korazim-Kőrösy, Mizrahi, Bayne-Smith, & Garcia, 2007). In an earlier article (just cited), we analyzed responses of focus groups of professional educators from these different professions and found that those engaged in IPC focused on the complexity of the problem at hand as a way of minimizing tensions among them.

Most of the literature related to interdisciplinary and interprofessional practice—both obstacles to and opportunities for—is rooted in what McMurtry (2009) describes as the socio-cultural dynamics of the "knowers" (referencing Klein, 2004; Abbott, 1988; and others). These include class, gender, history, economics, power, status, and professional socialization. He juxtaposes this to the phenomenon-focused perspective grounded in the real world of physical science, external to and apart from human meaning and subjectivity, and concludes that "[t]here is a need for conceptions of disciplinary and interdisciplinary knowledge that integrate these perspectives

and avoid the extremes of both naïve realism and naïve social constructivist relativism" (p. 11). Nevertheless, almost all the studies we have uncovered, including his own (McMurtry, 2010) and ours, still locate the assessment of collaborative processes and outcomes in the socio-cultural aspects of behavior, which include interpersonal, organizational, institutional, and professional systems.

Clark (1997) suggests that "the process of acquiring a professional identity and norms of practice is an ongoing dialectic of professional socialization that is both reflective and dynamic in that it involves interaction between the self and others in the environment" (p. 441). Hall and Weaver (2001) extrapolate from Petrie's theory (1976) that socialization results in profession-specific cognitive and perceptual approaches that presumably do not change substantially over time. Others exhort the need to help novice professionals recognize the values and responsibilities of their respective professions, while instructing them in new frameworks identified as "professional plurality" (Glen, 1999, cited in San Martin-Rodriguez, et al., 2005).

Historically, the literature examining IPC has focused more on how professions as entities deter IPC development than propel it. Irvine, Kerridge, McPhee, and Freeman (2002) and Brock, Hinings, and Powell (1999) cite professionalism and professional organizations as among the structural barriers to interprofessionalism. D'Amour, et al. (2005) assert that divisions among professions exist for the purpose of maintaining "professional territories" (p. 118) and suggest that they also impede the process of collaboration, involving the lack of trust, stereotypical ("othering") language, cultural differences, and power and status divides, as well as mixed messages from mentors and role models about the value of IPC (Abramson & Mizrahi, 2012; Barnes, Carpenter, & Dickinson, 2000; Julian, 2006; Lindeke & Sieckert, 2005; Irvine, et al., 2002). Reuben, et al. (2004) use the term "disciplinary split" (p.1000) to describe attitudinal and cultural traditions of different professions fostered by faculty and students that limit their ability to appreciate perspectives other than those of their own profession. More recent literature continues to identify barriers to IPE (interprofessional education) and IPC at the organizational and institutional levels (Braithwaite, et al., 2013; McMurtry, et al., 2012; Chesluck & Holmboe, 2010), although there is an increasing literature on the factors that contribute to IPC at the interpersonal and professional levels such as leadership and communication (Xyrichis & Lowton, 2005; Sargeant, Loney, & Murphy, 2008).

Conceptual differences around professional socialization and identity on the one hand and IPE and IPC on the other led us to further explore

specific questions: Does professional identity strengthen or weaken with IPC experiences? Does professional identity change among professionals experienced in working collaboratively? How do professionals steeped in IPC view their own profession as it relates to its interprofessional behavior? Ultimately, our goal is to use this research to enhance educational models for the effective preparation of professionals who also have the capacity for interprofessional practice (Weinberg & Harding, 2004; Choi & Pak, 2007; Craddock, O'Halloran, et al., 2006).

Methodology

Research Design and Questions

This was an exploratory descriptive research study based on quantitative and qualitative data collected from a questionnaire distributed to 50 informants who participated in an intensive day of mono- and multi-structured dialogue groups followed by debriefings. Informants responded to a series of dichotomous and open-ended survey questions on the following subjects:

1. Did the professional identities of these 50 professionals from six different professions strengthen or weaken over time, and if so how?
2. Do their demographic characteristics affect their professional identity and changes to it?
3. What is the relationship between a strong or weak professional identity and changes or lack of change in that identity, and the way these 50 professionals view their own profession's strengths and limitations in promoting or inhibiting IPC activity?

Recruitment, Selection, and Group Assignment of Study Informants

A cohort of 50 professionals from the above mentioned six professions were recruited, using professional networks, snowball sampling, and reputational method, to serve as key informants for this exploratory study. The term "informant" is used rather than "subject" or "participant" because the authors' intent was to solicit the professionals' experiences and to ultimately involve them in further research and interprofessional educational programs. Their selection was based on scrutiny of their expertise and insight into professional and interprofessional dimensions of collaboration throughout their years of practice. These informants were assigned to a professional group based on requested written biographies that included their

professional degrees, their positions as teachers or practitioners within their credentialed profession, and at least 10 years of current or prior experience working in the area of IPC.

Every recruit received a package that included an invitation to participate in a day of structured dialogue, along with a description of the work we were doing and a consent form, a mandatory component of the IRB system that approved this research. Recruitment continued until we achieved 10 potential informants for each of the six groups for a total of 60 informants confirming their attendance. As with most research using human subjects, all the expected informants did not show up, reducing our sample to a total of 50 informants. Given the propensity of selected participants not to show up in most research using human subjects it is apparent in hindsight that it would have been beneficial to over-recruit at the selection stage to avoid not only loss of informants, but also, as a result of that loss, loss of the capacity to make stronger statistically significant statements later on at the implementation stage. A simple adjustment such as recruitment of 70 would have been more likely to yield the 60 informants needed to have 10 in each of six categories of professions, increasing the likelihood of meeting the rules of expected counts of 5 in a 2 X 2 chi-square table in order to make a statistically significant statement.

In research that is conducted with small sample sizes, direct measurements of sample characteristics tend not to allow authors to make statistically significant projections to a larger population (Kachigan, 1982). Although we were aware of this fact, we decided to proceed anyway thinking that results of the work would nonetheless be valuable. With that in mind, we conducted this exploratory research about the current status of professional identification and interprofessional community collaboration using a small sample size and both quantitative (O'Sullivan & Rassel, 1995) and qualitative methodology tenets (Bartlett, Kotrlik, & Higgins, 2001). Quantitative methodology, especially as it relates to small sample sizes is quite direct. The validity and meaningfulness of insights generated from qualitative studies with small numbers of cases have more to do with the opportunity they provide for deeper probing and the rich information obtained on the day of structured dialogue than with the larger numerical data sets that must be generated in quantitative studies in order to arrive at statistical significance. The 50 informants in this study exceed the minimum suggested in the literature for qualitative studies (Hudelson, 1994; Corbin & Strauss, 2008) further discussed below.

Data Analysis

Quantitative

The sample sizes in this research are indeed too small to meet the rules of expected counts of 5 in a 2 X 2 table to make a statistically significant statement using chi-square. Nevertheless, the authors have used the chi-square to test the relationship between strength of professional identify and changes in professional identity. They have also applied both the Yates' Correction for Continuity and the G Test, and those results are reported in the Findings section below.

Qualitative

The text from the open-ended questions was coded using Content Analysis (CA), which is a systematic, replicable technique based on precise rules of coding (Holsti, 1969; Weber, 1990). Content Analysis actually involves three distinct aspects: conventional, directed, and summative (Hsieh & Shannon, 2005). Conventional CA is based on coding categories developed from the text data itself and applied to the content. However, it is usually advisable to employ a directed aspect that requires data analysis to start out with a focus on the main variables, which in this case are professional identity and interprofessionalism. The final aspect is summative content analysis which requires that researchers first count and compare keywords and phrases in the text before deciding on the interpretation of the fundamental context.

In our use of the CA technique, after an initial review, two authors independently developed a list of categories, themes, and concepts into which the lengthier and varied responses of informants were later compressed (Ryan & Bernard, 2003). This process was repeated by the third author, after which all three worked together to achieve consensus on fewer, very clearly defined data concepts and meanings of the informants' responses and comments. The smaller number of categories facilitated organizing informants' communications for easy identification and retrieval of data relevant to our research questions (Kondracki, Wellman, & Amundson, 2002). The CA system allowed the authors to explore and uncover results that pertain only to this sample without making inferences to a larger population beyond comparing results to those of any other related studies in the literature and making a recommendation for further research. Reproducibility of specific categories and general methods applied to establishing categories and coding

data content make a study and its subsequent conclusions sounder. This study focused on a set of five categories: (1) professional identity, (2) its strength or weakness, (3) changes, if any, in professional identity, (4) descriptive statements on ways in which changes in professional identity might have influenced the informants' participation in IPC, and (5) assessment of the strengths and limitations of their own professions' contributions to IPC. Development of categories and coding also provided the analytic framework to count the frequency of responses for the purpose of examining the similarities and differences among and within the professional cohorts.

Findings

The Participant Informants

The informants consisted of eight lawyers, ten physicians, seven nurses, seven psychologists, nine public health professionals, and nine social workers. The cohort included 11 men and 39 women (22% and 78% respectively). The ethnic breakdown of the sample, based on the authors' knowledge of the informants, was 33 Caucasian (66%) and 17 people of color (34%), including two Asians, nine Black/African Americans, and six Latino/as. The City University of New York (CUNY) is part of the City and State-wide public higher education system in the State of New York, and it employs and/or produces most of the professionals who work on health and social conditions of poor and marginalized communities in the City. These professionals are heavily represented in our sample. The University-Wide Summary of the 2013 CUNY Workforce Demographics by Ethnicity and Gender indicates that the population of CUNY professional staff numbers 28,409, including both full and part-time instructional employees. Among this professional population, the percentages regarding gender and ethnicity bear some resemblance to those of our sample. For example in the CUNY professional population, women (52.2 %) also outnumber men (47.27 %), albeit not by as wide a difference as in our sample of 78% women and 22% men. With regard to ethnicity, our sample more closely mirrored the CUNY population. For example, in the CUNY system, the Federal protected groups (Black, Puerto Rican, Hispanic/Latino, Asian/Pacific Islanders, and American Indians) totaled 38.6%, which is very close to the percentage of people of color (Black, Latino, and Asian) in our sample (34%). In a comparison of the White population of professionals (61.4%) in the CUNY system to those in our sample (66%) very little difference was found. The informants had an average of 15.5 years IPC experience (with a range from five to over 40 years).

Professional Identity

Informants were initially assigned to one of the six professional groups listed in Table 1. We labeled them based on their "assigned identification," which could be characterized as their "outer" or external professional identification. On the survey questionnaire, they were asked to choose their primary "professional identity" by checking one from a list of the six professions or "other." There were very few differences between our assigned classification and their self-selected or "inner" professional identity. Further scrutiny revealed no discernible differences by gender, race/ethnicity, or additional degrees. Two who reported a change in their identities had a Master of Public Health degree and two did not. In these cases just obtaining another professional degree did not by itself change their professional identities. We used their self-identified profession in examining the rest of the data.

Strength and Changes in Professional Identity:

Table 1 reflects the results of the informants' responses regarding how strongly they identified with their profession (using a five point Likert Scale). The overwhelming majority (78%; N=39) strongly identified with their professions (when combining responses "completely" and "a lot"), while 20% (N=10) indicated a weak identification (when combining "a little" or "not at all"). As cohorts, fewer doctors and psychologists strongly identified with their professions, while all public health professionals and nurses, almost all the lawyers, and a majority of social workers strongly identified with their core professional identity.

Table 1 also shows that the majority of informants (64%; N=32) indicated that their professional identification had changed over the years, compared with 36% (N=18) who indicated no change. This finding, that almost two thirds of all informants had changed their professional identity, occurred across all of the six professional cohorts: four physicians, five social workers, five psychologists, five nurses, six lawyers, and seven public health practitioners.

Table 1. Strength of Professional Identification and Whether It Changed

Professions ID	Self	Prof. ID Strong	Prof. ID Weak	Changed Prof. ID NO	YES
Social Work	9	6	3	4	5
Law	7	6	1	1	6
Medicine*	6	4	1	* 2	4
Nursing	7	7	0	2	5
Public Health	13	12	1	6	7
Psychology	7	3	4	2	5
Other	1	1	0	1	0
TOTAL	50	39	10	18	32

*One person in medicine did not respond to the question

Relationship between Strength of Professional Identity and Change in Professional Identity

Table 2 is a chi-square of the relationship between strength of, and changes in, professional identity and shows the actual and expected values for that relationship with the results of a Yates' Correction for Continuity as well as a G-Test. Even with these additional efforts, which are likelihood Ratio-based test statistics, this chi-square did not achieve the standard rule of 5 or more in all cells of a 2 X 2 table. For this table with its actual and expected values, the chi-square = 1.197 (p-27.39%), DF=48, at both the 5.00% and the 1.00% significance levels. When the Yates' Correction was implemented, the results indicate a Yates' chi-square=0.522 (p-47.04%) at both the 5.00% and the 1.00% significance levels. After applying the Yates' Correction, calculated p values again failed to fall below significance levels of 5% and 1%. In addition the G test was performed, and there too the calculated G -1.28 did not achieve the critical G- 3.80 which is necessary to yield significance at the (p - .05 or p - .01) level. Hence, while our early thinking was that despite a small sample size our results would nonetheless be valuable, it must be concluded that the data do not provide any significant differences.

The possibility of a relationship between strength of professional identity and change in professional identity is worth further research because those informants who had both a strong identification and changes in their identification represent almost half (N=24; 48%) of respondents. The second largest cohort consisted of almost one-third of the informants, who were strongly identified with their profession and did not indicate any changes in their professional identification. These 15 individuals also

included representatives from all six professions. In the third largest cohort, there were a total of ten informants (20%) who did not strongly identify with their profession, and all but two of them, as might be expected, changed their professional identity. These ten respondents included people from all the professions except nursing.

Table 2. Chi-square/Yates': Change in Professional Identity by Strength of Identity

Changed Professional Identity Prof. ID	Strong Actual – (Expected)	Weak Actual – (Expected)	TOTALS
NO	15 (13.53)	2 (3.47)	17
YES	24 (25.47)	8 (6.53)	32
Totals	39	10	49

*One person did not respond to the question on strength/weakness of professional identity.

Chi-square = 1.197 (p-27.39%)
Yates' Chi-square = 0.521 (47.04%)

Chi-Square G-Test

Changed Prof. ID	**Strong**	**Weak**
NO	1.55	-1.10
YES	-1.43	1.62

Calculated G value = 1.28
Critical G - 3.80

Characteristics Influencing Change in Professional Identity

Demographic features were first examined to determine if these appeared to exert any influence on identity strength or changes. When informants' comments regarding why and how their professional identity had changed

were examined from the perspective of gender, race/ethnicity, and years of experience in IPC, there did not appear to be any major differences. The majority of both genders identified strongly with their profession although slightly more males than females said their identity changed. Caucasian professionals changed their identity slightly more often than did people of color. With regard to years of IPC experience, it appears that strength of identity was not related to longevity in the field because just as many indicated that they changed their identity early in their career as late.

The Meaning of Changing Professional Identity

In response to the question asking informants to briefly describe the ways their professional identity changed, they provided a wide variety of comments giving different interpretations and meaning to the question. These were categorized into four themes:

> Changes in position, setting, and/or role (e.g. "I moved from practice to academia," "I moved into government");
>
> Changes in the practice orientation within their discipline (e.g. "I shifted from a nursing-centric to people-centered approach," "I'm more analytical and more collaborative," "Now I'm more interested in multi-causality and in process than outcome");
>
> Changes in professional interests that moved beyond the perceived traditional or mainstream professional identity for their given discipline (e.g. "I moved away from medicine into public health");
>
> Reconstruction of professional identity (e.g. four physicians actually replaced their professional identity by selecting "public health" instead of "medicine" on the questionnaire the authors used).

Some of the informants compared their identities to what they considered to be the more traditional professional identity within their same profession, and, for the most part, they saw themselves as different from their more "typical" professional colleagues (regardless of profession). A major change for several informants from different professions was that they had incorporated terms like "interdisciplinarity," "collaboration," and "community" into the descriptions of their changed professional identity.

The following are typical examples. Five of the eight lawyers indicated that they were not practicing traditional law, but instead had become involved in more community-oriented practice, such as organizing and advocacy.

The nurses, who all strongly identified with their profession, unanimously expanded their focus to include partnering with other professions, and adjusted their perceptions of patients and patient education toward more community-based practice and research. Social workers reported that their changes in professional identity were guided by their collaborations with community people as well as other professionals. Even the psychologists, who reported the weakest professional identification overall, had moved from traditional, individually and cognitively focused ways of operating towards "multidisciplinarity," with a broader environmental focus.

Table 3: Ways in Which Changed Professional Identity Influenced IPC (in Informants' Own Words)

[W = weak professional identification; S = strong professional identification]

Social Work

1. (W) "I became more analytical and more collaborative."
2. (W) "I'm following my interests rather than what is professionally dictated."
3. (S) "I no longer identify as a gerontologist, but more broadly as a social worker."
4. (S) "I'm more firmly grounded in idea of social justice."
5. (S) "I now see myself as counselor, maintenance worker, laborer, doing what is needed.",

Law

6. (W) "I'm more informed by multidisciplinary experiences."
7. (S) "I was a social worker, went into law and now have also changed views about role of lawyers."
8. (S) "I moved away from pure legal practice into organizing."
9. (S) "I now see things more broadly than traditional lawyering."
10. (S) "I never felt identified with the 'stereotypical' lawyer."
11. (S) "I feel more identified with my profession; as years go by I put more of myself into it."

Medicine

12. (W) "I'm less involved in individual patient care."
13. (S) "I became a doctor at mid-life, I am a work in progress."
14. (S) "I see medical education more broadly now to include nutrition."
15. (S) "I moved away from medicine into public health."
16. (S) "I started as a teacher and community organizer before my public health orientation."

Nursing

17. (S) "I have more of a community-based focus on keeping people healthy; my emphasis now is on helping people 'help themselves.'"
18. (S) "I moved from direct practice into administrative and interdisciplinary work."
19. (S) "I have always partnered with other clinical disciplines."
20. (S) "I shifted over the years from nursing-centric to a people-centered approach."
21. (S) "I moved from an RN practice only to include education, practice and research."

Public Health

22. (S) "I'm in a more academic environment."
23. (S) "I've transitioned to a government related career."
24. (S) "I started as an engineer/researcher/administrator; now I'm a public health advocate."
25. (S) "I used to identify more with medical anthropology, now identify with both."
26. (S) "I've broadened my role and perspective beyond clinical."

Psychology

27. (W) "I take a less of a traditional 'psychology' approach to working with others."
28. (W) "I'm simply less identified with my particular discipline."
29. (W) "My research is now more qualitative, participatory, cognitive and environmental focused."
30. (S) "I was in government. Now I'm more interested in multi-causality and in process rather than just in outcomes."
31. (S) "I'm more interested in public health than psychology narrowly defined.

Strengths and Limitations of Each Profession's Contributions to IPC

Regardless of professional identity, all informants made judgments about their own profession's strengths/contributions and limitations/challenges. In analyzing their own professions, all of the informants (except lawyers) included as a strength their profession's "willingness and ability to collaborate" and their profession's "involvement in interprofessional practice." The lawyers also identified their problem-solving skills as strengths in IPC.

In describing the limitations of those in their profession as collaborators, all but the nurses said, in almost the same words, that their particular profession fostered "narrow, hierarchical thinking." Moreover, as is evident in Table 4,

all except public health professionals expressed as a limitation the thought that their profession "paid attention to individual rather than community level interventions." The public health informants were concerned that their profession devoted too much attention to data and quantitative analysis, rather than examining social determinants of health. Finally, both physicians and nurses acknowledged the dominance of physicians as a negative factor impeding IPC.

Table 4: Strengths and Limitations of Their Own Profession's Contributions to IPC (from Informants' Own Writing)

Profession	Professional Strengths (N=50)	Professional Limitations (N=49)
Social Work	"SW contributes to the effective resolution of complex community issues." "We have excellent collaboration skills." "We can see multiple and complex perspectives." "We have good values and process skills." "There is a willingness and ability among social workers to work with others."	"We focus on individual level interventions." "We can get bogged down in problems." "Potential to wallow in process without delivering hard products." "We focus on the importance of feelings rather than focus on concrete outcomes." Three social workers identified narrow, hierarchical thinking.
Law	"Lawyers have good problem-solving skills." "Our analytical ability is a strength." "Our effective communication and advocacy helps."	"Our profession does not listen well; we're not patient enough." We always take charge and think we are right." "Client confidentiality can be a barrier." Three lawyers identified narrow, hierarchical thinking.

Psychology	"Our interdisciplinary approach to focus on human emotions/ relationships is a strength." "Our knowledge of methodologies—both quantitative and participatory."	"Our focus on individual pathology can be a barrier." "We focus too much on experimentation." "We are too focused on the individual." Two psychologists identified narrow, hierarchical thinking.
Public Health	"PH is interdisciplinary at its core. "It works across disciplines." "We have a broad view of issues and a belief in the collaborative process."	"There is a heavy reliance on quantitative analysis, research and hard data in PH." "There is an unwillingness to work on social determinants of health." "Too much focus on territoriality."
Nursing	"We make interdisciplinary connections between patients." "Our skills in community collaborations are a positive." "Nurses bring clinical knowledge and interpersonal skills."	"There is a lack of recognition by doctors of nursing skills." "Too narrowly focused on patients." "There are a shortage of nurses, so no time to collaborate." "Nurses have been historically made invisible." "MDs speak for nursing and therefore nurses are sometimes overly defensive."

Medicine	"We're viewed as content experts." "Our emphasis on science and evidence is a plus." "We can be multi-inter-trans-disciplinary, particularly those leaning toward public health." "Our leadership as it is seen in our authority roles is a positive."	"Our need to dominate, lead." "We are very focused on professional prestige, being the smartest person in the room." "Dominating decisions and our impatience with process." "Medical schools don't focus on team approach." Four physicians mentioned narrow, hierarchical thinking.

Discussion

The Complexity of Professional Identity and Interprofessional Community Collaboration

Several themes about professional identity and interprofessional community collaboration emerged from this study. First, it showed the strength of professional identity was stark. After years of working in multiple settings, positions, and roles, and collaborating with other professionals and community stakeholders, almost 80% of these informants from all six professions still strongly identified with their core profession, to which they were originally socialized. At the same time that they had assumed numerous roles in IPC activities, they were also rooted in academic or administrative positions within their own profession. This strong foundation perhaps gave them the freedom to explore additional opportunities beyond their own setting without losing their original professional identity. And with that identity developing and strengthening over time in myriad positions, it appears that they recognized the value and contribution of their own profession to these IPC initiatives (Schmitz, Stinson, & James, 2010). At the same time, there was also greater consciousness of and willingness to admit the limits of their profession's capacities and, therefore, the need to collaborate with other professions to address the complex community and social problems they were confronting (Couturier, et al., 2008), an interesting result. One might assume, as some studies suggest, that a strong professional identity could be associated with a negative view of, and hence difficulty in, collaborating with those in other professions where one needs

to be open to others' ways of knowing and doing (just as one might assume a weak or uninformed professional identity could promote a greater ease in collaborating with those in other professions) (Barnes, et al., 2000; Craddock, et al., 2006; Hall, 2005). But this was not the experience of informants who participated in this study. Perhaps the difference is that those studies seem to have been conducted on students and neophyte professionals and not, like ours, on experienced practitioners who have the confidence and security of their own profession to guide their actions and shape their attitudes (Hind, et al., 2003).

A powerful second finding is related to reframing professional identity with a more expanded definition, which speaks to the dynamic nature of one's experience with one's own profession. Most of the informants who changed identity (about 2/3 of the cohort) embraced a broader, more expanded definition of their own profession, going beyond what they viewed as a typical or traditional definition of their profession's role. They still identified within the confines of their core profession, but had moved toward a more interprofessional and inclusionary way of working. Moreover, they did not report having many of the attitudes that some studies say inhibit interprofessional team functioning (Epple, 2007; Maton, et al., 2006; Braithwaite, et al., 2013; McMurtry, et al., 2012) such as lack of esteem for alternative perspectives and an excess of esteem for their own group (Irvine, et al., 2002).

Most informants identified their own profession's "narrow and hierarchical" perspective as a limitation in promoting IPC, regardless of which profession. At the same time, informants used the term "interdisciplinarity" in describing the direction in which they as individuals had changed professionally. And they also used that term in describing a strength of their profession in IPC, asserting that those in their profession understand the need to move beyond professional autonomy toward interdependence (Abramson & Mizrahi, 2012; Shaver, 2005). The fact that these accomplished professionals could embrace "interdisciplinarity" (or the more technical "interprofessionalism") for themselves and their profession more broadly contributes to the evidence of a trend emerging within their own profession and across professions toward a more expansive view of professional education and practice, without diminishing their sense of their own profession's standing (Swick, 2006; Stokols, Hall, Taylor, & Moser, 2008).

Much of the literature on professional socialization states that as professionals move into the workforce, they identify more with the organization or team subculture than with the profession (Abbott, 1988; Allen, 2007). Indeed, Sullivan poses the question "Is professionalism obsolete?" (2005, p. 51). For approximately 80% of our 50 informants, the answer was

a clear "no." Rather, they seemed to welcome interprofessionalism as part of their definition of their profession. A majority (80%) of those 10 informants with a weak professional identity said their identities had changed compared to 60% of those 39 respondents with strong identities, but with no discernable patterns. Change by itself does not appear to be a determining factor for whether they remain identified with their core profession.

A third theme for a small minority of informants was reconstructed professional identity, where they saw themselves as trancending their original profession, moving outside its boundary rather than merely stretching it. A few informants, all physicians, radically transformed themselves by replacing their original professional identity with that of another profession, in particular physicians who now identified as "public health" professionals. We also discovered a lawyer who had an MSW degree but no longer included that in her identity. This appears to have occurred as their career track moved them into jobs outside the mainstream in their core professions. It still remains for additional research to determine under what circumstances individuals will "break" with their core profession and take on a new or no professional identity (Roberts, 2000; Price, 2009; Weresh, 2009).

The authors assume that most professional educators would want to ensure that their investment in shaping their students' identity is maintained over time, that is, that they have produced professionals who will remain committed to the profession in which they were trained. They will be gratified with the overall outcomes found here. However, questions for further study remain: Is there a "tipping point" at which some professionals decide to reconstruct their identity, and if so why? What are the factors that contribute to losing one's professional identity or never acquiring a resilient identity in the first place? These are questions for which answers no doubt would be critical to academic leaders in developing curricula in graduate and continuing professional education (Bronstein, Korazim-Kőrösy, Mizrahi,& McPhee, 2010; Curran, Deacon, & Fleet, 2005; Sullivan, 2005).

Implications for Research on Professional Identity and IPC

This research has implications for the educational preparation of practitioners in many professions who are socialized to collaborate with others in addressing complex social problems that affect the well-being of communities. The good news is that our informants, with extensive experience in IPC, understand its value and can articulate their particular profession's contributions to this important work, while they also criticize its limitations. Since we selected them because of their backgrounds and

experience, we don't assume that they are typical of their professional cohort. Therefore, additional research needs to be done on additional groups, especially on those with less experience in general and in particular with IPC.

Implications for Professional Education and Practice

A major ramification here is that after 10 to 40 plus years of IPC work experience, most informants identified with their core profession, but had also expanded their thinking and presumably their professional behavior beyond the boundaries of the traditional professional in their field. These findings point to the benefits of experiential learning and internships for student preparation, as well as the need for continuing professional education for practitioners that can give them the tools to integrate dual or multiple identities into their professional selves. The latest scholarship provides additional resources for both new and veteran practitioners (Repko, 2011).

Clark, who scrutinized different cognitive and value-based components in professional socialization, concluded that new educational models "must preserve the individual identities of the different disciplines, while simultaneously creating a common ground where differences are valued because of their unique contributions to the quality of care"(1997, p. 441). He introduced a new term, "dual socialization," in which "students simultaneously develop identities as both individual professionals and team players, and recognize both the importance of their own profession and the necessity of valuing the diversity of others" (p. 449). Others have introduced similar conceptualizations, but focus on the result rather than the process, for example, producing an "interactional professional" as suggested by Higgs and Hunt (1999) or a hybrid/dual identity labeled "interdisciplinary professional" (Hall & Weaver, 2001; Irvine, et al., 2002). Clearly, there are positive changes in conceptualization of professional practice that bode well for those who want to maintain a vibrant professional identity while contributing to effective IPC and socialize students to do the same.

Of course, one of the strongest arguments for collaboration among professionals comes from the complex nature of the problems professions are now trying to address. These are multi-layered, requiring simultaneous focus on the individual, institutional, and structural levels (Chow & Pak, 2007; McMurtry, et al., 2010). One clear example of this fact is in the health field where interprofessional and interdisciplinary collaboration is often required to address the multiple causes of morbidity and mortality that run the gamut from environmental to behavioral factors. The leading scholars on interdisciplinarity explain that today, there is "recognition that it is needed

to answer complex questions, solve complex problems and gain coherent understanding of complex issues that are increasingly beyond the ability of any single discipline or profession to address comprehensively or resolve adequately" (Repko, 2011, p. 3). Further, there is recognition that scientists conduct real-world research on problems that rarely arise within orderly disciplinary categories, and the solutions obtained are seldom, if ever neatly organized by professions (Palmer, 2001).

The authors intend to extend this research by applying a "Learning from Success" framework (Myers-JDC-Brookdale, 2013) to the data provided by the informants in this study. This will include delving deeper into the narratives of the informants as to how and why they sustained a strong professional identity while at the same time engaging in IPC (Bathmaker & Harnett, 2010). The informants in this study are professional educators and leaders who indicated that they are invested in producing committed, competent, and reflective professionals who will contribute over the career lifespan to both theory and practice that strengthens their own profession and IPC concurrently (Ross, King, & Firth, 2005; Barretti, 2004; Schon, 1987).

Implications for Interprofessional and Interdisciplinary Studies

As we have learned since we began our work in 2004, the two terms "interdisciplinary" and "interprofessional" should not be conflated, although they are often used interchangeably. And newer terms like "transdisciplinary" and we assume eventually "transprofessional" will make the understanding of these phenomena/constructs even more complex. The best we have been able to do is operationalize the two terms "interdisciplinary" and "interprofessional" in our study with our informants. Perreault and Careau (2012) explore various approaches to defining IPC and discuss some of the underlying epistemological and ontological challenges given the wide array of perspectives, definitions, and conceptualizations coming from different professions and disciplines. They and we suggest that it is necessary to make differences more explicit and not just emphasize the commonalities by bringing together people with different backgrounds and different ontological and epistemological worldviews.

We have also discovered in reviewing the meta-analyses of literature on interprofessional education and collaboration that the authors do not use the same bodies of reported research from which to draw their conclusions. For example, D'Amour, et al. (2005) and Freeth, et al. (2005) use very different literature in reviewing similar concepts to accumulate evidence. There is hardly any overlap apparent in studies dealing with "teamwork," "collaboration," "interdisciplinarity," etc. None used the expertise of the

Association for Interdisciplinary Studies or the scholarly literature on science produced by the Science of Team Science to frame their analyses. Additional consolidation of the extensive amount of scholarship on IPC has yet to be done, although the Cochran reviews point us in a promising direction (Reeves, et al., 2009). Another drawback is the fact that different studies combine different sets of professions, with little consistency, because they are reflecting the conditions in the real world. Not every problem or program brings together the same group of professional or disciplinary collaborators. Hence one cannot control for the discipline or profession in comparing processes and outcomes.

Conclusion

The 50 professionals from six disciplines in this study were chosen as informants because of their knowledge of and experience in IPC. Those who indicated a strong level of professional identity were more likely to change, expand, or enhance their professional identity as they pursued their careers. They did so in ways that include more interprofessional understanding and practice. From our findings it appears that changing what it means to be a professional in one's own profession does not, for the most part, weaken one's core professional identity. Many of these professionals expanded the boundaries of what it means to be a consummate nurse, social worker, lawyer, physician, psychologist, or public health professional. No one personal or professional characteristic seemed to distinguish among those who maintained, or expanded, or replaced their professional identity.

These informants also identified the strengths and limitations of their own profession with respect to interprofessional practice, a matter that the authors explore further in another recently published article (Korazim-Kőrösy, et al., 2014). There were more similarities than differences in how they both praised and criticized their own discipline. These findings could serve as a basis for future studies. Specifically, more in-depth as well as longitudinal research is needed on such cohorts to understand more about the impact of IPC on both student and continuing professional socialization over a career trajectory.

Acknowledgements: This study was funded in part by the College of Management in Rishon LeZion, Israel, and the Research Collaboration of the City University of New York.

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