

BABEȘ-BOLYAI UNIVERSITY
FACULTY OF PSYCHOLOGY AND EDUCATION SCIENCES
PSYCHOLOGY DEPARTMENT

PHD SUMMARY:

**UNDESTANDING INTERPROFESSIONAL COLLABORATION IN
HEALTHCARE**

**An exploration of four profession related concepts (PRV): Professionalism,
Identity, Status and Pride**

AUTHOR: PhD. Candidate RALUCA SFETCU

SCIENTIFIC SUPERVISOR: PROF. PhD. ADRIANA BĂBAN

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Key words: Inter-Professional Collaboration (IPC), Profession Related Variables (PVR), research profiling, Social Relations Model (SRM), Inter-professional Collaboration (IPC), Community Mental Health Centers (CMHC) Professionalism, Professional identity, Professional Status.

1. Introduction

The need for inter-professional collaboration in healthcare has been consistently highlighted, be it under the umbrella concept of multi-disciplinary teams, interdisciplinary teams or, inside the newer paradigm of inter-professional collaboration. Although the team approach has been presented as a shortcut to increased professional efficiency (Borrill, West, Shapiro, & Rees, 2000a; Ke et al., 2013; Thylefors, Persson, & Hellström, 2005) and enhanced individual satisfaction (Chang, Ma, Chiu, Lin, & Lee, 2009; Xyrichis & Ream, 2008) a systematic investigation of the cost-effectiveness of teamwork presents inconclusive results (Ke et al., 2013), teamwork being the subject of a broad range of influencing factors (Mickan & Rodger, 2005). Quite often, one of the sources of variability is represented by the professional diversity of the team members (van Knippenberg and Schippers 2007). Professional identity, status, power and professional boundaries have been identified by the sociological literature as core elements of professions, the professionalization process being defined as a way to achieve professional status by obtaining cognitive expertise in a certain area of practice (Larson, 1977). At the same time, the main role of professional bodies is to regulate a profession and to create and protect the professional boundaries by setting criteria for accessing a certain profession. These are key elements to the way professionals perceive themselves but it also determines how they interact with other professional categories. Quite often these defining elements of professions seem to be the main barrier in inter-professional collaboration, although it is becoming more and more obvious that inter-professional collaboration is vital for providing patient center care in mental health services. While previous research has managed to isolate profession related variables (PRV) that might have an impact on collaboration such as: professional identity and identification (Skei 2008, Kreindler, Dowd et al. 2012), professional status (Ben-Sira and Szyf 1992, Martin, Ummenhofer et al. 2010), professionalism, professional stereotypes (Bell & Allain, 2011; J. Carpenter, 1995; Mandy, Milton, & Mandy, 2004), an integrated approach (where the relative influence of each of these variables on collaboration practices would be of interest)

has not been yet used for multi-professional interactions in the health care services. Such an integrated approach would be highly relevant for understanding inter-professional collaboration since, in health care and – especially – in mental health care, changing the perspective on how patients must be treated has often driven changes in the roles different professionals play in the treatment process.

A first example to illustrate this dynamic is the birth of the asylums and the freeing of the mentally ill from their chains by Pinel. Moving away from a custodial (controlling) approach, together with the promotion of a “moral” and “psychological” treatment for patients, represent a telling example for such a treatment paradigm shift. At the same time, it is also the first documented example of inter-professional tensions generated by the role changes and, subsequently, the role negotiations implied by the change in treatment approach, power struggles between psychiatrists and nurses being first documented over 200 years ago in Salpêtrière (Wallace & Gach, 2010). The development of new pharmacological treatment for persons with mental health problems and the de-institutionalization wave started in 1950s, has also brought changes in the professional landscape. As treating patients into community required both more intensive care and a broader area of expertise, new professional categories have entered the mental health care area (social workers, psychologists, vocational and occupational therapists, etc.). In consequence, the role negotiations have intensified not only between professions but even inside the psychiatric profession (Daniels, 1966). More recently, the proven effectiveness of certain psychological treatments (McHugh & Barlow, 2010; Richards, Lovell, & McEvoy, 2003) has determined decision makers to increase access to psychotherapy (Clark et al., 2009; Richards & Suckling, 2009). In UK, the commitment to increase access to psychotherapy treatment (IAPT program) can be translated in the training of 6,000 new CBT therapists, including both high-intensity therapists and the new psychological wellbeing practitioner (PWP) role. The IAPT program had an impact on the workforce profiles of existing services, career frameworks for psychological therapists, the capacity of training providers to train new and existing staff in psychological therapies and the challenges implicit in devising a workforce delivery plan to support the IAPT program (Turpin, Hope,

Duffy, Fossey, & Seward, 2006). As training for becoming a high-intensity therapist in IAPT was now available to nurses, many have chosen to transition to a psychotherapist career, which often implied forming a new psychotherapist identity (Robinson, Kellett, King, & Keating, 2012). All these examples speak of an increased dynamism in the area of mental health professions, which might fundamentally influence the way collaborative care is offered to patients but which has received little attention until now. Questions such as: “What does it mean for my professional identities to work in a field where the professional landscape changes continuously and new professions continue to appear?” “How are the professional changes impacting the perception of status by the individual professionals?” “How are these changes affecting the profession itself?” and, at the end of the day “How do I feel about my profession?” It may well be that moving the research field forward and finding new ways of increasing collaboration in the mental health care field, will mean that we have to find answers to the above questions and many more others that are still hiding behind.

The term inter-professional collaboration (IPC) was coined in 2005 (D'Amour), in a trial to integrate in a single framework two research streams from the healthcare teamwork research arena: a) inter-professional education (IPE) and b) inter-professional practice (IPP). IPC comes as a natural development of the team approach, which has been the main analysis framework in the last few decades (Driskell & Salas, 1992). Multidisciplinary teams (MDT) and interdisciplinary teams (IDT) are the most frequent adaptations of team-working theories to health care environment. Although most frequently these concepts have been used interchangeably, some studies differentiate between the outputs of these different types of teams, reporting better results for the interdisciplinary approach in comparison with multi-disciplinary approach in terms of team performance and employee satisfaction, especially in somatic rehabilitation teams. Some authors believe that the difference between the two approaches derives from different degrees of interaction between team members and from their different degrees of responsibility to the patient (P Hall & Weaver, 2001), the multidisciplinary and interdisciplinary approaches being on a continuum of collaboration. After being in

the spotlight for more than half a century, teams seem to prepare to exit the research stage and make place for more dynamic conceptualizations of collaborative practices, such as teaming (Edmondson & Schein, 2012; Edmondson, 2012) or knot-working (Engeström, Engeström, & Vähäaho, 1999; Engeström, 2005). Whether they are multi or interdisciplinary, also due to the high frequency of the term use in health policy papers, teams in the health care field have been recently questioned, the term pseudo-teams being introduced by a recent study (M. A. West & Lyubovnikova, 2013). According to a recent study, although 90% of the British national health service (NHS) employees report being part of a team, only 40 per cent of staff believe their team has clear shared goals, are working interdependently and regularly monitor their efficacy – all being fundamental features of a team. We have witnessed in the last few years an increased awareness of the emergent needs of re-focusing the teamwork research on new themes, as a result of a more fluid, dynamic, and complex working environment than in the past (Tannenbaum, Mathieu, Salas, & Cohen, 2012). The dynamic composition of the „new teams”, the impact of technology and distance on team processes as well as increasing the effectiveness through empowerment and delayering are three of the priorities, authors argue, that will need to be addressed in the near future in order to realign research with practice (Tannenbaum et al., 2012).

Despite the above described reasons to re-visit the “team” concept, part of the legacy of teamwork research consists in the established international recognition of the importance of working together, in health care settings teams being perceived as a quality indicator. As research has repeatedly proved that health teams have a positive impact on reducing the use of health services (Sommers, Marton, Barbaccia, & Randolph, 2000), on reducing medical errors (Manser, 2009), on patients satisfaction with the offered services as well as on staff motivation (Borrill et al., 2000a), efforts to improve collaboration will have to intensify in the next years, instead of falling out of focus. Although team research has uncovered many pieces of the collaboration puzzle, many other are still to be understood. This view is supported by a recent study aiming to identify the organizational and professional factors which foster or limit the interdisciplinary collaboration in community health

care centers in Quebec. The study authors have found that both simultaneous and antagonistic factors support and hinder collaboration, such as: conflicting values and beliefs, agreement with the disciplinary and interdisciplinary logic – at the same time, social integration with the work group coexisting with interdisciplinary conflicts (Sicotte, D'Amour, & Moreault, 2002). While the study sheds some light on empirically supported factors that so often transform interdisciplinary collaboration in the healthcare sector in a tense experience, it provides little insight into the mechanisms and opposite forces that strain professional exchanges in the working environment. In our research, we focus on the inter-professional part of the collaboration process, aiming to uncover some of the professional related variables which positively and negatively impact collaboration.

By comparison with previous approaches, interdisciplinary collaboration has been defined as a process of continuous exchange of information with others while working on professional specific tasks (McCallin, 2001) while in interdisciplinary teams members collaborate on specific actions and are process orientated. Profession related research has been, for a long period of time, a preferred topic for sociologists, who have narrated the “birth” of professions and have analyzed the process of “professionalization” of certain occupational areas such as medicine or law (Abel, 1979; Cruess, Johnston, & Cruess, 2004; Evetts, 2003, 2006a, 2006b; Fournier, 1999; Larson, 1977; Sullivan, 2000). In the area of medicine, some authors even discuss about successful efforts to professionalize occupations (medicine) and field less successful in their efforts (e.g. nursing) and present the result in terms of economic security and status (Sullivan, 2000). Nevertheless, all these authors adopt a macro-perspective, little or no attention being given to how professions influence work groups, dyads, interpersonal relations or individual perceptions.

Social psychology, organizational psychology and organizational behavior fields, have contributed across time a few theoretical frameworks that can be used in understanding the PRV at mezzo and micro levels. Teamwork and diversity research (Chamberlain-Salaun, Mills, & Usher, 2013; D'Amour, Ferrada-Videla, San Martin Rodriguez, & Beaulieu, 2005; McCallin, 2001; McCallin, 2005), social psychology theories and models (e.g. social identity approach (SIA), social identification theory

(SIT) the social relations model (SRM), the concept of relative distance (RD) (Godin, Bélanger-Gravel, Eccles, & Grimshaw, 2008), as well as conflict theory and social networks (E. West, Barron, Dowsett, & Newton, 1999) are just a few of the theories that have been used by researchers in the healthcare arena to untangle the often overlapping and interdependent facets of working inter-professionally. Nevertheless, a conceptual framework for understanding the impact of profession related variables on collaboration is not available, factors such as: beliefs in the benefits associated with interdisciplinary collaboration, social integration within groups, level of conflicts associated with interdisciplinary collaboration, agreement with disciplinary logic and agreement with interdisciplinary logic are all grouped in literature under the intragroup processes category (Sicotte et al., 2002). As expected, this situation leaves quite some room for guesswork when it comes to explaining how these factors inter-relate.

Technology, lifelong learning policies, the promotion of career pathways, and the new achieved flexibility of educational pathways are not without impact on the professional mobility and dynamics. As the professional landscape is changing, so does the way the individual perceives the impact of the profession on himself in terms of professional identity, status or degree of engagement with the profession. Decisions of staying in the profession or leaving the profession, engagement in collective actions or adoption of self-affirming strategies are all influenced by these changes at the level of the profession. Looking beyond individual variability, can we identify pattern of behaviors at a certain point in time? Do these individual behaviors have an impact on inter-professional collaboration and can we measure it? Based on this information, can we design interventions programs aimed at improving collaboration? Unfortunately, at the moment, the research in the area of profession related variables is too fragmented to even try to address these questions in our research. Preliminary work of conceptual integration, model development and piloting of measures is necessary. It is, therefore, the lack of conceptual clarity and conceptual integration what has motivated us to further explore the internal dynamics of inter-professional collaboration.

In order to do so, we start with an exercise to organize the literature in the area by using a mixed quantitative-narrative approach. Subsequently, based on the results obtained and drawing on existing models from social psychology we present the result of a study aimed at testing the connection established between mezzo-level PRV and IPC and two studies which address the relationship micro level PRV and IPC.

2. Objectives

The main objective of this thesis was to investigate the relationship between profession related variables (PRV) and inter-professional collaboration (IPC). Drawing on social psychology theories we explored the relationship between micro and mezzo level PRV and IPC.

Objective 1: Develop a conceptual framework for PRVs (at micro, mezzo and macro levels) which have an impact on IPC such as: professionalism, professional identity, professional status, and professional related affects. This objective is addressed in Study 1: „A review of profession related variables (PRV) by using research profiling and in-depth analysis techniques. Propositions for a conceptual framework”.

Objective 2: Investigate the impact of mezzo-level PRVs on IPC. This objective is addressed in Study 2: „Perceiver and target effects evaluating the professional competencies of others. Does it have an impact on inter-professional collaboration (IPC)”?

Objective 3: Investigate the impact of mezzo-level PRVs on IPC. This objective is addressed in Study 3: „Understanding the intra-professional dynamics. How are pride, identity and status affecting the perceived professionalism” and Study 4: „Inter-professional dynamics. Exploring the impact of professional related variables on collaboration”.

3. Study 1 A review of profession related variables (PRV) studied in relation to inter-professional collaboration (IPC) by using research profiling and in-depth analysis techniques. Propositions for a conceptual framework

Abstract

This chapter represents a review of the inter-professional collaboration (IPC) literature addressing profession related variables (PRV) such as professional identity, status, professional pride and professionalism. As professions become more and more important in individual lives and are playing a higher role in defining and shaping our work interactions, efforts need to be made to better understand how these PRV interact and how they impact our collaborative practices. As mental health teams are a good example of a work context where inter-professional working is not just recommended but essential for offering quality care to patients, a higher volume of literature has accumulated around these topics. In this present study we capitalize on this volume by using a text mining approach (research profiling technique) and, in combination with a narrative synthesis of the relevant studies identified we advance a four component framework for future analysis of PRV in conjunction with IPC.

Key words: inter-professional collaboration (IPC), profession related variables (PRV), research profiling, the IPC framework

3.1. Introduction

In the last few decades, governments around the world have started to include inter-professional collaboration in their policies and to invest significant resources to improve collaboration amongst healthcare professionals. Policy driven research refers to implementation studies commissioned by policy makers in order to better understanding inter-professional collaboration (IPC) and its impact on professional practice and healthcare outcomes. The generalization of collaboration policies without setting the appropriate implementation mechanisms had contributed in some sense to the inflation of inter-professional collaboration concepts and practices (e.g. the multidisciplinary teams criticized by (M. A. West & Lyubovnikova, 2012) and has increased the awareness that such policy decisions should be based on evidence of the effectiveness of these approaches. As a result, research efforts have been invested into proving the effectiveness of collaboration. A recent Cochrane systematic review (Zwarenstein Merrick, Goldman Joanne, & Reeves Scott, 2009) included three types of practice-based IPC interventions: inter-professional rounds, inter-professional meetings, and externally facilitated inter-professional audit. Positive results have been reported such as: a positive impact of daily interdisciplinary rounds on length of stay and total charges (Curley, McEachern, & Speroff, 1998), improved prescribing of psychotropic following monthly multidisciplinary team meetings (Schmidt, Claesson, Westerholm, Nilsson, & Svarstad, 1998) and that an external facilitator was associated with increased audit activity and reported improvements to care (Cheater, Hearnshaw, Baker, & Keane, 2005).

Nevertheless, despite the raising evidence that IPC has a real impact, quite often the very belonging to different professions makes effective collaboration difficult. For example, a recent ethnographic study (V. Lloyd, Schneider, Scales, Bailey, & Jones, 2011) conducted in three dementia wards across one National Health Service mental health trust in UK, argues that the in-group identity of healthcare assistants (HCAs) might constitute an obstacle to effective teamwork. In order to explain their results,

the authors reference the social identity theory which predicts that marginalized groups would develop a stronger sense of professional identity and infer that a shared low group status and norms might often determine HCAs to highlight their own expertise in order to promote self-worth. A large number of professional related constructs have been analyzed in the last few decades in relation to collaboration in health care settings, such as: professionalism, professional status and professional identity, power, professional tribalism, professional rivalry, just to mention a few. While all these concepts have been frequently reported to influence the collaboration in health care teams, the direction and strength of the influence strongly varies across concepts, research areas, contexts and measurement approach. Also, the variables are analyzed in isolation rather than in conjunction.

In order to improve IPC in the last few years, interventions to increase inter-professional collaboration have been developed, the largest part of these being based on an inter-professional learning/education approach, inspired by the contact hypothesis (Allport, 1979). Both IPL and the contact hypothesis are based on the premises that a) equal group status within the situation, b) common goals, c) intergroup cooperation and d) authority support will reduce intergroup prejudice and stereotyping and will allow more effective collaboration. A recent Cochrane systematic review update (Reeves et al., 2008) evaluating the effects of IPL on professional practice and health outcomes has reported positive outcomes in the following areas: culture of emergency department and patient satisfaction, collaborative team behavior and reduction of clinical error rates for emergency department teams, management of care delivered to domestic violence victims and mental health practitioner competencies related to the delivery of patient care. It is our believe, nevertheless, that IPC can be further improved if the professional and inter-professional factors are better understood, and innovative intervention programs can be developed based on this new understanding.

3.1.1. Aim and new contributions

In order to better structure and understand the vast body of research accumulated in this area, we have conducted a concept driven literature review. We have preferred this approach for two different reasons: a) the topics of professionalism and professional related concepts (PRV) such as: identity, status and power have proved to be of interest for a very diverse range of researchers and different key concepts proved to appeal to different professional categories, therefore a systematic approach to our literature search end up to be unfeasible and of little help, and b) for this topic, a more knowledge-building and theory-generating approach seemed more appropriate, since the goal was that of clarifying concepts and the relationships established among them (Finfgeld-Connett & Johnson, 2013). With these arguments in mind, we have decided to use a more iterative approach to searching the relevant literature with the general objective of mapping the research landscape in the area of professional related concepts and inform our empirical research. We have opted for a mixed quantitative (data mining) – narrative approach in order to be able to a) explore large volumes of research and, based on it, identify a general conceptual pattern, and b) develop the automatically generated pattern into a theoretical model based on in-depth analysis of the relevant literature.

3.1.2. Working definitions

Based on the available literature, we have operationalized interdisciplinary collaboration as a process of continuous exchange of information and interaction with representatives of other professional categories while working on professional specific tasks (Mccallin, 2001). For the purpose of our research, professional related variables are all categories of individual, interpersonal, group or systemic variables which placed in a professional context would be modified and would become new variables. For example, social identity, classically defined as the identification of an individual with a group or social category to which he/she belongs, would become in

a professional context professional identity. Other example of such “convertible” concepts would be: professional status, professional pride, etc.

3.2. Method

3.2.1. The approach employed

The approach used for reviewing the literature was based on literature mapping methodology (Bragge, Relander, Sunikka, & Mannonen, 2007), combining research profiling techniques (Porter, Kongthon, & Lu, 2002) and analysis (quantitative content analysis by using co-occurrence networks) and an informed literature search in order to facilitate the interpretation of automatically coded data and develop appropriate research questions. Following this approach, we have started by conducting a systematic search of abstracts published in eight electronic databases: PsycARTICLES and CINHALL (via EBSCO), PubMed, JSTOR, Sage Journals, Science Direct, Emerald, and SpringerLink. In the first stage, we have used each of the following key terms: “professional identity, professional status, occupational prestige, professionalism, in combination with one of the target professions descriptor (psychiatrist, nurse, psychologist, social worker, mental health professional) and one of the terms defining a form of collaboration: inter-professional/ multidisciplinary/ trans-disciplinary teams/ teamwork/ collaboration. A random search for key terms of relevant titles retrieved following the first step has resulted in additional key words found to be relevant. A second search round based on the newly identified terms was conducted. The initial two-stage search has resulted in 2962 articles, after removing the duplicates, 2675 articles have remained and have been screened by title. Criteria for excluding articles in the title screening phase, as well as in the abstract based phase were: articles did not address collaboration, addressed only interagency collaboration not interagency, addressed professions outside our interest area, did not address directly one of the professional

related concepts (addressed only gender identity or status related to other criteria) were in a different language than English.

3.2.2. Data analysis

For reference management (search, retrieval, duplicates removal, selection based on title), we have used EndNote. For the quantitative content analysis KH Coder software was employed. The software uses algorithms to create co-occurrence networks (Romesburg, 2004) and Jaccard coefficient to calculate the strength of co-occurrence. A cutoff point of 60 strongest co-occurrences is used to determine the network edges. Determining the position of the nodes (words) is based on the Fruchterman-Reingold algorithm (Fruchterman & Reingold, 1991), and the igraph package of R is used for the actual calculation. For community detection we have used the modularity method (Clauset, Newman, & Moore, 2004). Modularity ranges between $-1/2$ and 1 and reflects the concentration of nodes within modules compared with random distribution of links between all nodes regardless of modules and to be completed

3.3. Results

3.3.1. Research profiling

A text data file with all abstracts selected to be included in the analysis was prepared. The document was automatically pre-processed and a number of 2.261 sentences have been extracted (731 paragraphs). In order to identify the adequate cutoff point to be used for term frequency (TF) when specifying the parameters of the co-occurrence framework we have plotted the TF frequency. Based on these results a cutoff point for the min TF was set to 5 and no point for the max TF was

- d) the organizational/systemic approach (based on professional/inter-professional relations): job satisfaction, relative distance.

Based on these results, we have analyzed the 43 full text papers retrieved in order to:

- a) verify that the four clusters we have identified in our research profiling are reflected in the literature, b) identify factors within each category and c) find for each identified concept evidence of impact on collaboration and determine the valence (positive or negative) of the impact.

3.3.2. In-depth analysis and narrative synthesis

3.3.2.1. Support for the individual approach cluster and illustrations

Two status related topics are reflected in the professional literature as being equally interesting for all professional categories working in mental health services: prescribing rights and dual professionalism. In USA advanced nurse practitioners have obtained some form of prescriptive authority in all 50 states (Wiggins & Wedding, 2004), be it independent prescribing, in collaboration with a physician or supervised by a physician (Feldman, Bachman, Cuffel, Friesen, & McCabe, 2003). In practice, nurses seem to still meet barriers and to have to battle strict regulations and mandatory supervision by a physician in order to exert their prescriptive authority (Craig, 1996). Psychiatrists have either a neutral or negative attitude towards nurse supplementary prescribing (Tomar, Jakovljevic, & Brimblecombe, 2008) but, as they perceive the underlying change in power balance, they rather fear that nurse prescribing would create conflict in clinical teams (Patel et al., 2009). Other authors even see the prescribing psychologist as a potential calamity for inter-professional collaboration in mental health, depending on the appetite of psychologist for aggressively pursuing prescription privilege (Bush, 2002). In their struggle to elude professional irrelevancy, psychologists are now waiting in the line for equal privileges, by obtaining prescriptive authority (Kazak, 2006). Nonetheless, the topic was intensively discussed in the last two decades (Bush, 2002; DeLeon,

Fox, & Graham, 1991; Kubiszyn, 1994; MacGrath & Moore, 2010). Nevertheless, a study from 2004 analyzing prescribing practices of psychologists who were dually trained as nurses and psychologists¹, showed that only 5% were actually prescribing (Wiggins & Wedding, 2004). Besides the legal and financial constraints and barriers, authors suggest that prescribing psychologists might have to face professional identity challenges, concerns voiced in other countries as well (Fitzgerald & Galyer, 2008). However, more recently a new wave of interest in the area of the professional identity and status has surged in psychiatry as well, fueled by the fact that, unique clinical functions, such as the prescription of medication, or the statutory duties reserved under the mental health legislation of the day to the responsible medical officer, are no longer sacrosanct” and while research increasingly aims to reveal the biological correlates of psychiatric disorders „we have moved from the traditional terminology of medicine and conceptualization of disease, where doctors see and treat patients, towards the language of consumerism, to the service user and the client, apparently striking at the basis of psychiatry as a medical and scientific discipline” (Oyebode & Humphreys, 2011). Other authors have also voiced their concerns about the intrusion of other professions into psychiatry’s traditional field of competence (Katschnig, 2010; Maj, 2010), and about the increasing professional competition in the area in the past 50 years, rooted in the birth of new professions such as graduate mental health workers, gateway workers, psychological well-being practitioners high-intensity psychological therapists (Oyebode & Humphreys, 2011).

Although on a less dramatic tone than psychiatrists, concerns about the survival of the profession are voiced by psychologists as well. One path to survival, as seen by American psychologists, consists in obtaining prescription rights. McGrath and Moore (2010) seem to believe that this strategy would allow psychologists to evolve and escape the threat irrelevance in a future where other mental health professions continue to grow and expand their roles (MacGrath & Moore, 2010):

¹ Implying that they had prescriptive authority as advanced nurse practitioners or clinical nurse specialists and would not have to wait for psychologist to gain prescribing authority.

3.3.2.2.Support for the dyadic approach cluster and illustrations

Professional identity issues have been addressed in the nursing literature mostly by using a qualitative perspective and/or research methods. While some studies address the professional identity of nurses in isolation (Bowers, 1997; Deppoliti, 2008; Fagerberg, 2004), most of the research in this area is comparative and includes two or more professional groups (Bowers Len, Clark Nicola, & Callaghan Patrick, 2003; Kulys & Davis, 1987). For psychiatry, traditionally, the research in the area of professional identity has only marginally addressed the relationship with nurses, and when it did it underlined the dissatisfaction of psychiatrist with the collaboration (Herrman, Trauer, & Warnock, 2002). More frequently, comparisons with medicine and society in general have highlighted psychiatry's low status (Katschnig, 2010; Maj, 2010). As expected, the attention has been rather centered around interaction with associated and/or similar professions such as psychiatry residents' attitudes towards learning psychotherapy, practicing psychotherapy in the future, and overall identification as psychotherapists (Lanouette et al., 2011) or the development of psychiatry from combined neurological specialization to the separate fields of psychiatry and neurology (Richartz, 2000). Inter-professional rivalry, tribalism and stereotypes have been described in the context healthcare context and the negative impact on effective health delivery has been stressed (Mandy et al., 2004). Stereotypes in relation to inter-professional education are commonly explained in literature through the Contact Hypothesis Theory, the Realistic Conflict Theory, or the Social Identity Theory (Mandy et al., 2004).

3.3.2.3.Support for the group approach cluster and illustrations

When analyzing the impact of the profession on the identity, some authors have rather referred to “a professional self-concept” (D Arthur, 1992; Kelly & Courts, 2007), basing their work on the self-concept model (Shavelson, Hubner, & Stanton, 1976). The nursing self-concept has been structured around four different

dimensions: care, knowledge, leadership and staff relations (Angel, Craven, & Denson, 2012) and is more frequently studied in relation with nursing education and professional socialization (David Arthur & Thorne, 1998), self-esteem (David Arthur, Sohng, Noh, & Kim, 1998; Takase, Kershaw, & Burt, 2002) and gender roles or sex-role stereotypes (Holroyd, Bond, & Chan, 2002). Very few studies have related the self-concept approach with the professional identity approach. A more common approach was just to use the terms interchangeably (Cowin, Johnson, Craven, & Marsh, 2008), even when the measurement approach was aligned with the self-concept approach.

Psychological professional identity literature suggests the availability for interdisciplinary collaboration and alliances („a collective force is more powerful than the efforts of any one profession”) with other professions (counselors, social workers) in order to increase the effectiveness of the offered services, especially in times of fiscal retrenchment (Gibelman, 1993). Another professional category with which the psychologists see the collaboration as being very useful (often without being reciprocated on) is represented by religious leaders (Edwards, B, McMinn, & Dominguez, 1999; Kloos, Horneffer, & Moore, 1995; McMinn, Chaddock, Edwards, B, & Campbell, 1998). Primary care professionals, in general, (Gatchel & Oordt, 2003) and family physicians, in particular, are another professional category that psychologist are interested in collaborating with in order to (McDaniel, 1995) insure a broader reach to patients and families in need.

3.3.2.4. Support for the organizational/systemic approach cluster and illustrations

Some authors argue that the way professions have historically developed in health care can only lead to cultural clashes between different professional categories (Pippa Hall, 2005; Irvine, Kerridge, McPhee, & Freeman, 2002), as gender and class issues have been closely interrelated with the development of professions. The raise of the nursing profession as “doctor’s helpers” (Kulys & Davis, 1987), inside a male-female, “dominating doctor” – “submissive nurse” game (Stein, 1967) was

only possible within a carefully maintained professional hierarchy. The doctor – nurse game, other authors suggest, is not only maintained by professional themselves, but also by patients who project on the professional dyad their father/mother fantasies (Fagin & Garelick, 2004; Radcliffe, 2000). In 1990 as Stein revisited the doctor – nurse game and found that, tired of “the handmaiden image” (Donnelly, 1981; Lee, 1979), the nurses weren't playing anymore (Radcliffe, 2000) and, in order to change the inter-professional dynamics, have invested quite some time and effort in raising the professional status of nursing and constructing a new identity (Holyoake, 2011). This new identity was about becoming a well-educated practitioner with independent duties, skills, and responsibilities (Radcliffe, 2000).

3.4. Discussion

The aim of this study was to identify as much literature as possible investigating profession related variables (PRV) in relation to IPC, to text mine the abstracts identified and obtain a big picture of represented concepts and their co-occurrence, to find support for the initial cluster pattern by performing an in-depth analysis of selected full text papers and to integrate the results into a conceptual framework that would further inform our field research. Following reference identification and title and abstract screening phases, 690 abstracts have been profiled and 43 full text papers have been narratively synthesized. The research profiling revealed seven clusters of concepts out of which four were connected in some way with the collaboration node. Based on these two different stages, we have developed a framework for analyzing PRV in relation with IPC. The four clusters identified were: the individual level cluster, the dyadic/interpersonal level cluster, the group cluster and the systemic cluster. The individual approach includes variables such as status, identity, perception of roles and professional practice and captures the different ways that belonging to a professional group have an impact on the individual. The dyadic approach reflects closer interaction between 2 professional

categories. The group approach describes interactions between more than two professional categories. The organizational/systemic approach cluster gathers profession related variables where the individual, dyadic or group perceptions have little relevance.

3.5. Concluding remarks

The objective of Study one was to bring conceptual clarity to the area of (PRV) profession related variables. A framework for the conceptual organization of professional related variables was developed. Although it will prove useful in guiding initial research in the area of profession related variables in the context of IPC, in order to grow into a conceptual model further work needs to be carried out both at a theoretical level and at empirical level.

4. Study 2. Perceiver and target effects in evaluating the professional competencies of others. Does it have an impact on inter-professional collaboration (IPC)

Abstract

Background: Inter-professional perceptions and professional stereotypes have been repeatedly suggested to influence inter-professional collaboration in health care teams in general and mental health care in particular. This study utilized the social relations model (SRM) to examine the influence of inter-professional perceptions on collaborative practices. **Methods:** Participants were mental health professionals (psychiatrists, psychologists, nurses and social workers) from eighteen community mental health centers in Romania. Each professional rated his own profession as well as the other three professional categories on nine professional competencies: interpersonal skills, professional competence, leadership, academic ability, being a team player, being an independent worker, confidence, decision-making and practical skills. As an adaptation for inter-professional comparisons, in our study, individual pertaining to a professional category were considered perceivers and individuals pertaining to different professional categories were the targets. The Social Relations Model was used to analyze data collected in this matter. **Results:** The correlational analysis of assimilation (perceiver effect) found significant associations only between two out of the nine competencies investigated and collaboration. Consensus (target effect) levels were low and not associated with collaborative practices. **Conclusion:** Levels of leadership abilities and confidence perceived to be similar for all professional categories working in community mental health centers, are associated with higher levels of inter-professional collaboration.

Key words: Social relations model, Inter-professional collaboration (IPC), Community Mental Health Centers (CMHC)

4.1. Introduction

Although frequently mentioned as having an impact on collaboration, research on inter-professional perceptions in relation with inter-professional collaboration is rather scarce. The focus of the present study is on inter-professional perceptions (IPP), defined for the purpose of this study as a particular type of interpersonal perceptions (Kenny, 1994). While interpersonal perceptions - as used in team research - refer to members' beliefs and attitudes about and toward other team members, we have adapted this definition for inter-professional perceptions as follows: a set of beliefs and attitudes of an individual belonging to a certain professional category (e.g. nurse) about and toward individuals from other professions (psychologists). Specifically, we analyze the impact of inter-professional perceptions on inter-professional collaboration in community mental health centers, measured as a percentage of the actual time spent daily in inter-professional collaboration. Moreover, we model this analysis as an examination of social relations among four professional categories: psychiatrists, psychologists, nurses and social workers. Our primary goal in the present study is to examine how inter-professional perceptions related to a set of nine competencies influence IPC. In order to do so, we make use of the social relations model (SRM), which proposes that three independent processes vary across dyads and within groups: assimilation, consensus, and unique relations (LeDoux, Gorman, & Woehr, 2012). We continue to build on the introduction of the SRM theoretical and methodological framework into team research by LeDoux et al. (2012), while adapting and expanding it for inter-professional research.

4.1.1. Hypotheses

While inter-professional perceptions (IPP) are likely to have an impact on actual collaboration in mental health care teams, the investigation of these - most probably interconnected - concepts in functional teams has not yet been investigated.

Nevertheless, professional stereotypes have been analyzed in educational contexts (e.g. medical and nursing students) and have been proved to negatively influence the openness to collaborate (Diana Barnes, Carpenter, & Dickinson, 2000; John Carpenter, 1995; Kaler, Levy, & Schall, 1989). This study, therefore, draws on inter-professional collaboration (IPC) research as well as on the social relations model in order to better understand how social relations between different professional categories impact IPC in an ecologic setting. In order to do so, we have formulated the following hypotheses: *H1a*: Levels of within group assimilation for professional competence, academic ability and practical skills will be negatively correlated with collaboration behaviors; *H1b*: Levels of within group consensus for professional competence, academic ability and practical skills will be positively correlated with collaboration behaviors; *H2a*: Levels of within group assimilation for leadership, confidence and decision-making will be positively correlated with collaboration behaviors; *H2b*: Levels of within group consensus for leadership, confidence and decision-making will be positively correlated with collaboration behaviors; *H3a*: Levels of within group assimilation for interpersonal skills, being a team player, being an independent worker, will be positively correlated with collaboration behaviors; *H3b*: Levels of within group consensus for interpersonal skills, being a team player, being an independent worker will be positively correlated with collaboration behaviors; *H4a*: Levels of within group assimilation for professional competence, academic ability and practical skills will be negatively correlated with consensus for the same variables. *H4b*: Levels of within group assimilation interpersonal skills, being a team player, being an independent worker, leadership, confidence and decision-making will be positively correlated with consensus for the same variables.

4.2. Methods

The pilot study, which aimed to gain some insight into the dynamics of inter-professional collaboration in mental health care community services, was conducted in the period 14-22.01.2010. Four professional categories working in community mental health services were targeted: psychiatrists, psychologists, nurses and social workers.

4.2.1. Participants

A total of 40 professionals from 18 CSM's responded to the questionnaire. Among them, 35 per cent were psychiatrists, 30 per cent psychologists, 20 per cent nurses and 15 per cent social workers. The average age of participants was 39 years (SD = 9.63), with an average of years working in the workplace of 9.9 years (SD = 8.7) and a balanced gender distribution (47.5 per cent male and 52.5 per cent female). For the social relation model, due to the constraints related to data analysis requiring equal number of members in each group (Kenny & Albright, 1987)(de Vries, 2010) participants from each group had to be reduced to the number of respondents from the least represented group (in this case the social workers group). A number of 24 participants have, therefore, been included in the SRM analysis (6 X 4 professions) which is consistent with the minimum required for the SRM analysis to be valid (2X4 groups) (de Vries, 2010). The mean age of the sub-sample was of 37.20 years (SD=9.99).

4.2.2. Procedure

An electronic questionnaire was developed to assess perceptions about the professional competencies of the four categories of professionals in nine areas: interpersonal skills, professional competence, leadership, academic ability, being a

team player, being an independent worker, confidence, decision-making and practical skills. Demographic data, information about the team size, the organization and coordination of the teams, the support for teamwork available at organizational level, and the frequency and the average duration of team meetings have also been collected through the questionnaire. An email including a short presentation of the research project and a link to the online questionnaire was sent to Community Mental Health Centers and responses were automatically centralized in an Excel file, by using the Google drive application.

4.2.3. Instruments

Inter-professional stereotypes scale In order to measure the inter-professional perceptions of multiple professional groups, a nine item round-robin scale, developed by Barnes (2000) and adapted by Hean et al. (2006), was used.

Inter-professional collaboration (IPC) is operationalized, for the purpose of this study, as the actual working time spent in inter-professional collaboration and was measured by the self-reported actual percentage of the daily time spent in collaboration (0 to 100%).

4.2.4. Data analysis

For the descriptive analysis (means and SDs), for calculating Pearson Correlation Coefficients, for testing mean differences with ANOVA and for testing the reliability and validity of instruments we have used SPSS 20.0. For the social relation model based analysis Triple R package for the statistic software R was used. Triple R analyzes multivariate Round-Robin data using a Social Relations Model (SRM) approach (Kenny & Albright, 1987; Kenny, 1988). TripleR can be used for analyzing data based on a single, or on multiple Round-Robin groups (Schönbrodt, Back, & Schmukle, 2012). The estimation of the SRM parameters is based on formulas provided by Kenny (1994; p. 236-244). For tests of significance, Triple R

computes standard errors by using formulas published by Bond and Lashley (1996) for the case of a univariate SRM analysis.

4.3. Results

4.3.1. Descriptive analysis

A total of 40 professionals from 18 CSM's responded the questionnaire. Among them 35 per cent were psychiatrists, 30per cent psychologists, 20 per cent nurses and 15 per cent social workers. The average age of participants was 39 years ($SD = 9.63$), with an average of years working in the workplace of 9.9 years ($SD = 8.7$) and a balanced gender distribution (47.5 per cent male and 52.5 per cent female).

4.3.2. Hypotheses testing

Target, perceiver and relationship effects have been calculated by using the TripleR software. Significant perceiver variance was obtained for seven out of the nine competencies evaluated. Only for “academic ability” and “being a team player” the perceiver effect was not found to be significant. However, the perceiver effects for “being an independent worker” were highly significant. The ability to work independently was the only category for which a significant target variance was obtained while significant relationship variance emerged for all of nine competencies evaluated. In order to better understand the professional level perspectives, a one-way ANOVA was used to test differences of Perceiver Effect (PE) and Target Effects (TE) for the nine professional abilities evaluated among professional categories (psychiatrist, psychologist, nurse, social worker). Target effects for leadership ($F(3, 23) = 6.26, p = .004$), (teamwork $F(3, 23) = 7.29, p = .002$, decision making ($F(3, 23) = 3.20, p = .045$), and the ability to work

independently ($F(3, 23) = 3.75, p = .027$) differed significantly across professional categories. Nevertheless, the perceiver effect was found to be significantly different only for leadership abilities, $F(3, 23) = 5.18, p = .008$.

Subsequent pairwise comparisons (with the Bonferroni correction) revealed differences in target variability of leadership abilities, which were found to be significantly lower for nurses when compared to psychiatrists (mean difference = 496.66; 95% CI = 88.58, 904.74; $p < .05$), psychologists (mean difference = 458.33; 95% CI = 50.25, 866.41; $p < .05$) and social workers (mean difference = 518.33; 95% CI = -926.41, 110.25; $p < .05$). Target effects were found to be higher also when psychiatrists were compared with nurses with respect to decision making abilities (mean difference = 405.00; 95% CI = 9.59, 800.40; $p < .05$) and the later were compared with the social workers concerning the perceived ability to work independently (mean difference = 659.16; 95% CI = 1306.64, 11.68; $p < .05$). When looking at teamwork abilities, for psychiatrists we have found lower target effects than for psychologists (mean difference = 646.00; 95% CI = 1165.79, 126.20; $p < .05$), nurses (mean difference = 741.66; 95% CI = 1261.46, 221.87; $p < .05$) and even social workers (mean difference = 623.33; 95% CI = 1143.12, 103.54; $p < .05$). The only perceiver effect found to be significant when comparing among the four different disciplines, was for leadership abilities where nurses had a higher variability than the social workers (mean difference = 841.33; 95% CI = 186.22, 1496.44; $p < .05$).

Hypotheses 1a and 1b have not been confirmed, the levels of within group assimilation for professional competence, academic ability and practical skills being positively associated with collaboration behaviors while levels of within group consensus for academic ability and practical skills being negatively associated with collaboration. While these results are not statistically significant, the associations observed are opposite to those hypothesized. The only statistically significant results partially support hypothesis 2a, levels of within group assimilation for leadership and confidence (but not for decision-making) have been found to correlate positively with collaboration behaviors. Levels of within group consensus for leadership and confidence (H2b) hypothesized to be positively correlated with

collaboration behaviors was not supported and although not significant, the relationship was found to also (as for H1a and H1b) be opposite than expected (negative correlation). For decision making the direction of the association, though not significant statistically, was confirmed. Also not statistically significant, but in concordance with the predicted the directions of the associations were the results for H3a and, partially, for H3b, levels of within group assimilation for interpersonal skills, being a team player and being an independent worker being positively correlated with collaboration behaviors and levels of within group consensus for being a team player, being an independent worker being positively correlated with collaboration behaviors.

Finally, our results partially confirm H4a, levels of within group assimilation for professional academic ability being statistic significantly negatively correlated with consensus for academic ability. For H4b, a not-significant positive association was found for levels of within group assimilation interpersonal skills and being a team player. The remaining variables (being an independent worker, leadership, confidence and decision-making) have been found to negatively correlate with consensus for the same variables.

4.4. Discussion

Kenny's (1994) model of interpersonal perception proved to be a valuable means of understanding inter-professional perceptions regarding nine different professional competencies: interpersonal skills, professional competence, leadership, academic ability, being a team player, being an independent worker, confidence, decision-making and practical skills. SRM analysis posits that variances in perceptions of competencies are consistently due to three sources of variance: perceiver, target, and relationship effects. Therefore, the model enabled us to identify, by analyzing target effects (TE), that the four professional categories investigates reached consensus (significant TE) only for the ability to work independently, for the remaining eight

competencies the four different professional categories showing disagreement. The perceiver effects variances were significant for seven out of the nine variables (not for academic ability and teamwork), showing a low level of differentiation between targets by single perceivers. Finally and importantly, we found significant SRM relationship effects for all nine competencies. These reflect unique liaisons (alliances) among the four analyzed professional categories.

Looking at professional differences in TE variance, we have discovered that for leadership abilities, these were found to be significantly lower for nurses, psychologist and social workers by comparison with the psychiatrists. Target effects were found to be higher also when psychiatrists were compared with nurses with respect to decision making abilities and the later were compared with the social workers concerning the perceived ability to work independently. Nevertheless, when looking at teamwork abilities, for psychiatrists we have found lower target effects than for psychologists, nurses and even social workers. These results show the existence of stereotypes professional profiles in the same time with disagreement concerning these profiles. Following our hypothesis testing, only two positive significant associations have been found between the competencies investigated and IPC, namely confidence and leadership. This significant result suggest that the more the four categories of professionals are perceived to have similar confidence levels and leadership abilities, the higher is the actual time spent in inter-professional collaboration. Two negative significant correlations have been also found between assimilation and consensus for academic ability and decision making. This result suggests that the higher is the perceived level of similarity between the four investigated professions regarding their academic ability and decision making competencies, the lower is the consensus. We are also aware of some of the limits of our research. As other authors have already suggested, the interpretation of the target and perceiver variation is not always straightforward (R. J. Hall et al., 2009). We have also faced such difficulties as well when trying to understand negative correlations established between target effects and collaboration. One of the possible explanation would consist in the influence of the data collection instrument used, a recent study in personality research highlighting the possibility that the use of short

adjective scales results in higher perceiver and relationship variance when compared with other types of questionnaires (de Vries, 2010). As we fall in the above mentioned category of measurement, we think that further research should explore this potential bias by using different measurement approaches and by comparing the results obtained.

4.5. Conclusion

The perceived similarity of leadership abilities seems to be the most important factor associated with increased inter-professional collaboration in mental health care teams. This result is consistent with the vast body of nursing research claiming for higher professional status of nurses in the health care system and for expanded leadership roles inside the therapeutic team (Duffy Joanne R R, 2002; Laflamme, 2010; Magennis, Slevin, & Cunningham, 1999). Nevertheless, nurses are not the only professionals that seem to need a more horizontal leadership structure. Psychologists and social workers share this opinion, as reflected by our ANOVA (and post-hoc) analysis. This pilot study also aimed to test the applicability of Social Relations Model to inter-professional research. While a new perspective can be obtained by using this model, there are still methodological issues that need to be clarified before generalizing the use of this model.

5. Study 3: Understanding the intra-professional dynamics. How are pride, identity and status affecting the perceived professionalism

Abstract

The purpose of this study is to investigate the relationship between the subjective perceptions of nurses with respect to a set of professional related concepts such as: professionalism, professional identity and professional status. Data were collected in the framework of a professional nursing conference taking place in Bucharest, where surveys have been distributed to around all participants (N = 690). We used structural equation modeling, in AMOS, to test the mediating role of identity and between pride in the profession and professionalism. Results indicate that there are two paths available for increasing the perceived professional strength of professionals and – presumably – their satisfaction and effectiveness: one involves developing the pride in the profession while the other deals with increasing the status of the profession. Implications for systemic changes are briefly discussed.

Key words: Professionalism, Professional identity, Professional Status, Inter-professional collaboration

5.1. Introduction

Our conceptual mapping (Study 1) revealed that, although identity and status find themselves in a conceptual proximity in the literature addressing professional issues and inter-professional collaboration (IPC), they are treated as independent concepts, measuring different aspects of the self-profession intersection. A similar situation can be found in more theory development focused research, identity being one of the central topics of social psychology while efforts to conceptualize and measure status have been concentrated mainly in sociological research. Even more, despite the vast literature addressing these concepts, whether separately (in their provenience fields) or in connection (in IPC literature) very seldom address professional identity or professional status as such. While research targeting directly profession related identity and/or status is scarce, literature attempting the development of models to include both concepts is almost inexistent. In our literature review, we have identified several antecedents of collaborative inter-professional behaviors, such as: perceived strength of the profession, professional identity, relative professional status, and pride in the profession. In this study we empirically tested the relationships established between these variables. In order to do so, we draw on social and organizational identity theories as well as on status and occupational prestige previous research.

5.1.1. Objectives and research hypotheses

The general objective of this study was to comparatively asses a set of professional related variables (professional identity, professional status, professionalism, affective identification), often associated with collaborative practices, in order to determine unique relationships established between these variables. The self-enhancement explanation of identification predicts that the more prestigious the group, the greater the potential to boost members' self-esteem through identification (Mael & Ashforth, 1992; Tajfel, 1978). This type of positive relationship between

group prestige and identification was consistently supported over time and across different contexts (Boroş, Curşeu, & Miclea, 2011). Although professional identity has not been analyzed in relation with professional prestige, studies in organizational identity have confirmed a higher level of identification with the organization when prestige was higher. Taking into account the possible differences that might appear in professional identity development when compared with organizational development, we hypothesized that for professional identity, the relationship with professional prestige is inverse than in the case of organizational identification. We argue that reasons for this to happen are: the stability of the choice (the choice for belonging to a professional category is not easily changeable) and the low availability of exit opportunities (once somebody becomes a representative of a certain profession, changing the profession is not easily available due to high levels of resources invested). Based on these arguments and drawing on Festinger's cognitive dissonance theory, we predict that a higher professional identification leads to a higher level of perceived professionalism (professional prestige) of one's profession.

Concerning the relationship established between professional identity and professional prestige, on the one side, and actual professional status – on the other side-, a large number of studies have shown that individuals continue to identify with groups under lower status conditions (e.g., Turner, Hogg, Oakes, & Smith, 1984; Branscombe & Wann, 1999; Doosje, Ellemers, & Spears, 1995; Spears, Doosje, & Ellemers, 1997; Ellemers, Spears, & Doosje, 1997). We therefore hypothesize that perceived professional status predicts a higher level of professionalism. Several authors have argued that social identity is a multidimensional construct composed out of cognitive identification, affective identification and evaluative identification (Ashforth & Mael, 1989). Affective identification has been conceptualized across time in different ways but it most frequently overlaps with the experience of pride. Social identity literature presents affective identification as being secondary to cognitive identification or even the most important outcome of perceived prestige (Carmeli, 2005). In the case of professional identity we predict that pride is preceding professional identity

professional status and professionalism, based on the arguments of the stability of the choice and of low availability of exit opportunities specific to professional identification. The theoretical arguments presented above, can be summarized in the following hypotheses: *H1*: There is a positive relationship between pride in the profession and professionalism. *H2*: There is a positive relationship between pride in the profession and identity. *H3*: There is a positive relationship between pride in the profession and status. *Hs 4*: Professional identity is positively associated with professionalism. *H5*: Professional status is positively associated with professionalism.

5.2. Method

5.2.1. Sample and Procedure

A 20 items questionnaire was distributed to around 900 nurses, participants in the yearly nursing conference organized in Bucharest in 2011, as part of their conference package. A short description of the study and a brief mention concerning the anonymity and voluntarily of participation in the study was included at the beginning of the questionnaire. A reminder about returning the questionnaire and information about collection points available was also included. Six hundred and ninety questionnaires have been returned. We included for further analysis only the participants who provided information that allowed us to describe the sample ($N = 688$). All participants were nurses, with a mean age of the sample of 41.23 ($SD = 9.20$). Most of the participants were women (93.16%). Average tenure in the profession was 14.37 years ($SD = 9.98$).

5.2.2. Instruments

For measuring the targeted independent variables, a Professional Related Variables Questionnaire (PReV-Q) was put together by selecting and adapting items used in previous questionnaires aiming to evaluate distinct professional related variables (e.g. Snizek's Professionalism scale or Cameron's Strength of group identification scale). The questionnaire includes items reflecting constructs in the following areas: professionalism/perceived strength of the profession (5 items), cognitive identification with the profession (4 items), relative occupational status/professional status (3 items) and affective identification with the profession/pride in the profession (2 items). All items have been translated in Romanian and adapted for the medical field and for inter-professional relations. Whenever the original version of the scales used the word "team/group", the adapted Romanian version was worded "profession". The complete list of the items used in measuring all the variables is provided in Appendix A, in Romanian and English.

Professional identity and more specifically, the cognitive identification with the profession (CIP), was measured by using four items adapted from the *Strength of group identification scale* proposed by Cameron. The original scale has 12 items structured under three dimensions: cognitive centrality, in-group affect and in-group ties (Cameron, 2004). We have based the professional identity scale on the cognitive centrality dimension, the in-group affect being measured by adapted items included under the Professional pride subscale. The professional identity scale includes items such as "I strongly define myself as a nurse".

Pride in the profession (PIP) was measured by using two items adapted from the *Strength of group identification scale* proposed by Cameron (2004). The original scale has 12 items structured under three dimensions: cognitive centrality, in-group affect and in-group ties. We have based the pride in the profession scale on the in-group affect dimension. The pride in the profession scale includes items such as "Being a nurse makes me feel good about myself".

Relative occupational status (ROS) or the professional status was measured by adapting three items from the 11 items Professional Status Scale (Burford et al., 2011). The professional status scale includes items such as “Nurses have the same status as other healthcare professionals (e.g. like doctors)”.

Strength of the profession (SOP)/Professionalism/Professional prestige, was measured using the *Professionalism Scale* (Snizek, 1972) The original scale has 25 items grouped under five subscales: belief in public service, using professional organization as a major referent, belief in self-regulation, sense of calling to the field and autonomy. We selected seven items that reflect the individual perception of how strongly his/her profession is developed (at least one item for each scale was selected). The scale includes items such as: “I think that my profession, more than any other, is essential for society”.

5.2.3. Data analysis

For the descriptive analysis (means and SDs), for calculating Pearson Correlation Coefficients and for testing the reliability and validity of instruments we have used SPSS 20.0. Model testing was performed in AMOS 20.0. Specific tests and values used are reported in detail in the results section.

5.3. Results

5.3.1. Reliability and validity of the Instruments

The Professional Related Variables Questionnaire (PReV-Q) is a self-administered questionnaire consisting of 14 items measuring different aspects of an individual’s perception of his/her profession: perceived importance of the profession/strength of

the profession (SOP), the cognitive identification with the profession (CIP), pride in the profession (PIP) and relative occupational status (ROS). All items are measured on a five point Likert scale (totally disagree / totally agree). In order to score each subscale, means are computed for each subscale by dividing the sum of the domain's items by the number of items within that domain. Only one item of the ROS scale is a negatively keyed item and needs reverse scoring („I don't have much opportunity to exercise my own judgment in my job”).

5.3.1.1. Internal consistency reliability

To combine multiple items into a single scale score, the items should be internally consistent. This was examined using three indicators of internal consistency: a) corrected item-total correlations; we have checked for a recommended minimum value of 0.40, b) mean inter-item correlation; we have checked for values between 0.3 and 0.7, and c) Cronbach α coefficient; all values have been found to be acceptable. Cronbach's α for each subscale of PReV-Q was between 0.715–0.913 (CIP= 0.913, for SOP= 0.844, PIP = 0.715) without any item deletions.

5.3.1.2. Principal Component Analysis

PCA with oblique promax rotation was performed in order to determine if the latent item structure mirrored the four domains specified in the instrument's construction. Promax rotation was utilized due to the high number of component inter-correlations, indicating factors would likely be correlated. A Kaiser-Meyer-Olkin (KMO) statistic of 0.857 indicated factor analysis was appropriate for the data, and Bartlett's Test of Sphericity was significant, suggesting absence of multicollinearity. The results have confirmed the proposed dimensions. Four factors exceeded eigenvalues of one and explained 65.4% of the variance. In Table 5.1. , we report item loadings from the pattern matrix. As our research is based on a single-method research design, we have used Harman's single-factor test in order to assess the

common method variability (CMV) (Podsakoff et al. 2003). In order to do so, PCA where the factor extraction was based on a fixed number of factors set to one and the factor solution was unrotated. The total variance explained by the single factor model was found to be below 50% (Podsakoff and Organ 1986).

5.3.2. Descriptive Statistics

Table 5.2. presents descriptive statistics and Pearson Correlation Coefficients for all the variables included in the model. Means are computed as average values for all scales. Age and tenure were found to correlate among themselves but not with any other of the variables investigated. All other variables have been found to correlate among themselves, with the highest correlation coefficients between the following two pairs: status and professional strength and pride in the profession with professional identity.

5.3.3. Hypotheses Testing

Hypotheses were tested using structural equation modeling in AMOS. To test for the mediated effects in the model we used Bootstrapping analysis, as recommended by Kenny (2012a). Bootstrapping was performed with a 95% bias-corrected interval confidence, with 2000 trials. We have considered that data fit the model when chi square (χ^2) was non-significant and values of CFI, GFI and NFI were .90 indicate appropriate fit. RMSEA values below .08 were considered indicators of acceptable fit (Byrne, 2009). The initial model was found to have rather poor model fit indices ($\chi^2 = 121.86$, $df = 3$, $CFI = .907$, $GFI = .939$, $NFI = .905$, $RMSEA = .240$). Standardized regression coefficients were found to be non-significant for the relationships between professional identity ($\beta = .021$, $p > .10$) and strength of the profession. After adjusting the model (Figure 5.2.) we have obtained very good model fit indices ($\chi^2 = 1.44$, $df = 1$, $CFI = .999$, $GFI = .999$, $NFI = .998$, $RMSEA = .025$).

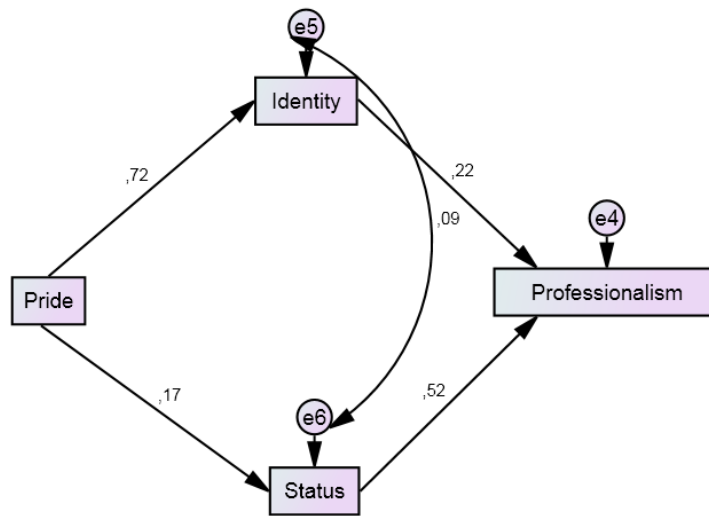


Figure 5.2. Path diagram and standardized path coefficients; results of structural equation modeling testing the hypothesized relationships (H1-H5).

We found support for H2. Data confirmed that there is a positive relationship between pride in the profession and identity. The Beta coefficients for the total effect pride-identity was of $\beta = .855$, $p < .023$. H4 was also confirmed, the Beta coefficient for the total effect identity-professionalism was $\beta = .169$, $p < .010$. We also found support for H3 and H5, with Beta coefficients for the total effect pride-status of $\beta = .105$, $p < .006$ and status-professionalism $\beta = .753$, $p < .013$. We found no support for H1, pride in the profession being associated with professionalism only via identity and status.

5.4. Discussion

In this study we set out to comparatively assess a set of professional related variables (professional identity, professional status, professionalism, affective identification) often associated with collaborative practices, in order to determine unique relationships established between these variables. We have started from social

identity theory and self –enhancement literature and argued that positive relationships are established between pride in the profession and professionalism, pride in the profession and identity, pride in the profession and status, professional identity and professionalism and professional status and professionalism. Although professional identity has not been analyzed before in relation with professional prestige, studies in organizational identity have confirmed a higher level of identification with the organization when prestige was higher. Taking into account the possible differences that might appear in professional identity development when compared with organizational development, we hypothesized that for professional identity, the relationship with professional prestige is inverse than in the case of organizational identification. We argued that reasons for this to happen are: the stability of the choice (the choice for belonging to a professional category is not easily changeable) and the low availability of exit opportunities (once somebody becomes a representative of a certain profession, changing the profession is not easily available due to high levels of resources invested). Based on these arguments and drawing on Festinger's cognitive dissonance theory, we have predicted that a higher professional identification leads to a higher level of perceived professionalism (professional prestige) of one's profession. Concerning the relationship established between professional identity and professional prestige, on the one side, and actual professional status – on the other side-, we hypothesized that perceived professional status predicts a higher level of professionalism. Affective identification has been conceptualized across time in different ways but it most frequently overlaps with the experience of pride. Social identity literature presents affective identification as being secondary to cognitive identification or even the most important outcome of perceived prestige (Carmeli, 2005). In the case of professional identity we predict that pride is preceding professional identity professional status and professionalism, based on the arguments of the stability of the choice and of low availability of exit opportunities specific to professional identification. To examine these contentions we collected data from 690 nurses through a questionnaire used to investigate participants perceptions about the four variables investigated. Structural equation modeling (SEM) was used to test the five hypotheses. As predicted, data analysis confirmed that there is a positive

relationship between pride in the profession and identity (H2). Positive relationships between pride in the profession and status (H3), professional identity and professionalism (H4) and professional status and professionalism (H5) have also been confirmed. Nevertheless, a direct relationship between pride and professionalism has not been confirmed. Additionally, by using SEM, two different paths that lead to a perceived higher level of professional prestige (professionalism/strength of the profession) have been identified: a) pride – identity – professionalism and b) pride – status – professionalism. As expected, the association pride identity was found to be stronger than the association pride – status while the association professional status – professionalism was found to be stronger than professional identity – professionalism. These results indicate that there are two paths available for increasing the perceived professional strength of professionals and – presumably – their satisfaction and effectiveness: one deal with developing the pride in the profession and the other deals with increasing the status of the profession.

5.5. Conclusion

The core result of this study is represented by the discovery that cognitive professional identity, although operationalized and measured similarly to other types of identity (e.g. organizational identity), relates differently to other forms of identification (affective professional identification) to profession related perceived status as well as to perceived strength of one's profession. These results should encourage further explorations of the professional identity concept in future research.

6. Study 4: Inter-professional dynamics. Exploring the impact of professional related variables on collaboration

Abstract

The purpose of this study is to investigate the relationship between the subjective perceptions of nurses with respect to a set of professional related concepts such as: professionalism, professional identity, professional status and inter-professional collaboration. In this chapter we address the third objective of this thesis by trying to determine whether there are clear relationships established between the above mentioned concepts and what the nature of these relations is. Data were collected in the framework of a professional nursing conference taking place in Bucharest, where surveys have been distributed to around all participants (N = 690). We used structural equation modeling, in AMOS, to test the mediating role of professionalism in the relationship between professional identity and status and collaboration with other health care professionals. As in Study 3, we have kept in our model the pride in the profession variable in order to test the results obtained in a larger model. Results show that while status has both a direct and mediated impact on collaboration, the relationship between identity and collaboration is mediated by professionalism. We discuss the implications of our findings for designing organizational interventions program aimed at increasing the professional pride of nurse's as well as the possible impact of these results in professional and health system policies design to increase the professional status of nurses.

Key words: Professionalism, Professional identity, Professional Status, Inter-professional collaboration

6.1. Introduction

In study 3, we have explored the relationships established between pride, identity, status and professionalism and found out that two different pathways lead to increased professionalism: a) a pride – identity – professionalism path and a pride-status – professionalism with stronger associations established between pride and identity, on one side, and status and professionalism, on the other side. In this study we aim to further extend the identified model and to: a) comparatively assess the above mentioned professional related variables in relation with collaborative practices in order to determine unique relationships established, and b) develop a prediction model based on professional related variables for collaboration. In order to do so, we have formulated the following hypotheses: *H1*: There is a direct positive relationship between identity and collaboration; *H2*: There is a direct positive relationship between status and collaboration; *H3*: The relationship between identity and collaboration is mediated by professionalism; *H4*: The relationship between status and collaboration is mediated by professionalism.

6.2. Method

6.2.1. Sample and Procedure

A 20 items questionnaire was distributed to around 900 nurses, participants in the yearly nursing conference organized in Bucharest in 2011, as part of their conference package. A short description of the study and a brief mention concerning the anonymity and voluntarily of participation in the study was included at the beginning of the questionnaire. A reminder about returning the questionnaire and information about collection points available was also included. Six hundred and ninety questionnaires have been returned. We included for further analysis only the

participants who provided information that allowed us to describe the sample (N = 688). All participants were nurses, with a mean age of the sample of 41.23 (SD = 9.20). Most of the participants are women (93.16%). Average tenure in the profession was 14.37 years (SD = 9.98).

6.2.2. Instruments

For measuring the targeted independent variables, a Professional Related Variables Questionnaire (PReV-Q) was put together by selecting and adapting items used in previous questionnaires aiming to evaluate distinct professional related variables (e.g. Snizek's Professionalism scale or Cameron's Strength of group identification scale). The questionnaire includes items reflecting constructs in the following areas: professionalism/perceived strength of the profession (5 items), cognitive identification with the profession (4 items), relative occupational status/professional status (3 items) and affective identification with the profession/pride in the profession (2 items). A six item "Collaboration with other professionals" scale (COP-S) was developed to measure the dependent variable.

All items have been translated in Romanian and adapted for the medical field and for inter-professional relations. Whenever the original version of the scales used the word "team/group", the adapted Romanian version was worded "profession". The complete list of the items used in measuring all the variables is provided in Appendix A, in Romanian and English.

6.2.2.1. Independent variables (PReV-Q)

Strength of the profession (SOP), was measured using the *Professionalism Scale* (Snizek, 1972) The original scale has 25 items grouped under five subscales: belief in public service, using professional organization as a major referent, belief in self-regulation, sense of calling to the field and autonomy. We selected seven items that

reflect the individual perception of how strongly his/her profession is developed (at least one item for each scale was selected). The scale includes items such as: “I think that my profession, more than any other, is essential for society”.

Professional identity and more specifically, the cognitive identification with the profession (CIP), was measured by using four items adapted from the *Strength of group identification scale* proposed by Cameron. The original scale has 12 items structured under three dimensions: cognitive centrality, in-group affect and in-group ties (Cameron, 2004). We have based the professional identity scale on the cognitive centrality dimension, the in-group affect being measured by adapted items included under the Professional pride subscale. The professional identity scale includes items such as “I strongly define myself as a nurse”.

Pride in the profession (PIP) was measured by using two items adapted from the *Strength of group identification scale* proposed by Cameron (2004). The original scale has 12 items structured under three dimensions: cognitive centrality, in-group affect and in-group ties. We have based the pride in the profession scale on the in-group affect dimension. The pride in the profession scale includes items such as “Being a nurse makes me feel good about myself”.

Relative occupational status (ROS) or the professional status was measured by adapting three items from the 11 items Professional Status Scale (Burford et al., 2011). The professional status scale includes items such as “Nurses have the same status as other healthcare professionals (e.g. like doctors)”.

6.2.2.2. *Dependent variables (COP-S)*

A six item Collaboration with other professions Scale (COP-S) has been developed by selecting and adapting items from the “Effective interactions with other people working in the healthcare system” 8 item scale (Burford et al., 2011) to measure

collaboration with other professionals. An example item from the scale is “I communicate with other health professionals to coordinate care”.

6.2.3. Data analysis

For the descriptive analysis (means and SDs), for calculating Pearson Correlation Coefficients and for testing the reliability and validity of instruments we have used SPSS 20.0. Model testing was performed in AMOS 20.0. Specific tests and values used are reported in detail in the results section.

6.3. Results

6.3.1. Reliability and validity of the Instruments

The Professional Related Variables Questionnaire (PReV-Q) is a self-administered questionnaire consisting of 14 items measuring different aspects of an individual’s perception of his/her profession: perceived importance of the profession/strength of the profession (SOP), the cognitive identification with the profession (CIP), pride in the profession (PIP) and relative occupational status (ROS). All items are measured on a five point Likert scale (totally disagree / totally agree). In order to score each subscale, means are computed for each subscale by dividing the sum of the domain’s items by the number of items within that domain. Only one item of the ROS scale is a negatively keyed item and needs reverse scoring („I don’t have much opportunity to exercise my own judgment in my job”).

The “Collaboration with other professionals scale” (COP-S) is a self-administered scale consisting of 6 items measuring the perceived collaboration behaviors of an individual in relation with colleagues with different professional backgrounds. All

items are measured on a five point Likert scale (totally disagree / totally agree). The screening of the data for multivariate outliers indicated no influential cases, thus all data were retained for analyses.

6.3.1.1. *Internal consistency reliability*

To combine multiple items into a single scale score, the items should be internally consistent. This was examined using three indicators of internal consistency: a) corrected item–total correlations; we have checked for a recommended minimum value of 0.40, b) mean inter-item correlation; we have checked for values between 0.3 and 0.7, and c) Cronbach α coefficient; all values have been found to be acceptable. Cronbach's α for each subscale of PReV-Q was between 0.715–0.913 (CIP= 0.913, for SOP= 0.844, PIP = 0.715) without any item deletions. Cronbach's α for COP-S was also found to be good (0.945).

6.3.1.2. *Principal Component Analysis*

PCA with oblique promax rotation was performed in order to determine if the latent item structure mirrored the four domains specified in the instrument's construction. Promax rotation was utilized due to the high number of component inter-correlations, indicating factors would likely be correlated. A Kaiser-Meyer-Olkin (KMO) statistic of 0.857 indicated factor analysis was appropriate for the data, and Bartlett's Test of sphericity was significant, suggesting absence of multi-collinearity. The results have confirmed the proposed dimensions. Four factors exceeded eigenvalues of one and explained 65.4% of the variance. In Table 6.1, we report item loadings from the pattern matrix.

As our research is based on a single-method research design, we have used Harman's single-factor test in order to assess the common method variability (CMV) (Podsakoff et al. 2003). In order to do so, PCA where the factor extraction was based on a fixed number of factors set to one and the factor solution was un-rotated. The total variance explained by the single factor model was found to be below 50% (Podsakoff and Organ 1986).

6.3.2. Descriptive Statistics

Table 6.2 presents descriptive statistics and Pearson Correlation Coefficients for all the variables included in the model. Means are computed as average values for all scales. Age and tenure were found to correlate among themselves but not with any other of the variables investigated. All other variables have been found to correlate among themselves, with the highest correlation coefficients between the following two pairs: status and professional strength and pride in the profession with professional identity.

6.3.3. Hypotheses Testing

Hypotheses were tested using structural equation modeling in AMOS. To test for the mediated effects in the model we used Bootstrapping analysis, as recommended by Kenny (2012a). Bootstrapping was performed with a 95% bias-corrected interval confidence, with 2000 trials. We have considered that data fit the model when chi square (χ^2) was non-significant and values of CFI, GFI and NFI were .90 indicate appropriate fit. RMSEA values below .08 were considered indicators of acceptable fit (Byrne, 2009).

The initial model tested was found to have poor model fit indices ($\chi^2= 11.15$, $df = 3$, $CFI = .994$, $GFI = .994$, $NFI = .992$, $RMSEA = .063$). Looking at the regression weights we have found that the direct path identity – collaboration was not significant ($\beta = .934$, $p < .919$).

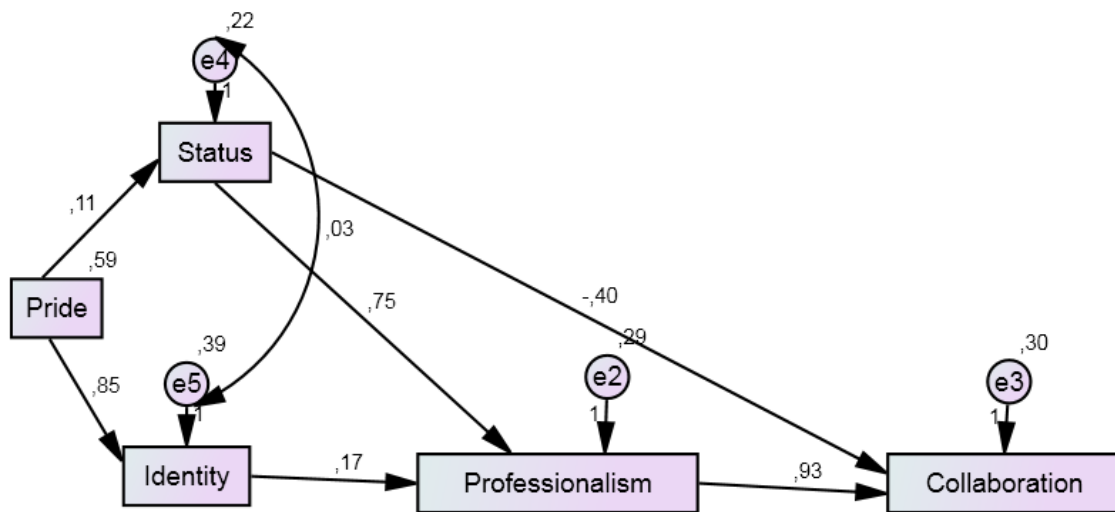


Figure 6.2 Path diagram and standardized path coefficients; results of structural equation modeling testing the hypothesized relationships.

After removing the identity – collaboration path, the adjusted model was found to have very good model fit indices ($\chi^2= 0.25$, $df = 4$, $CFI = .994$, $GFI = .992$, $NFI = .995$, $RMSEA = .051$).

We have, therefore, found support for H2, a significant direct positive relationship between status and collaboration being observed ($\beta = .299$, $p < .012$). However, we have not obtained similar results for H1, a direct relationship between identity and collaboration being unsupported. H3 and H4 have also been confirmed, a partial mediation effect being observed for the relationship status – collaboration (H4), the beta coefficients for the indirect effects being significant ($\beta = .703$, $p < .012$) and a

total mediation effect for the relationship identity – collaboration (H3), with $\beta = .158, p < .010$.

6.4. Discussion

In this study we set out to comparatively assess professional identity, professional status, professionalism and affective identification in relation with collaborative practices in order to determine unique the relationships established and to develop a prediction model based on professional related variables for collaboration.

We have started by building on results presented in Study 3, and expanded the model by hypothesizing the existence of direct positive relationships between identity and collaboration (H1) and status and collaboration (H2). We have also predicted that the relationship between identity and collaboration will be mediated by professionalism (H3), this mediation being also applicable to the status - collaboration relationship (H4). In order to test these hypotheses we have further expanded the model used in study 3 and have used SEM to test the predicted relationships. We have found support for H2, a significant direct positive relationship between status and collaboration being observed but not for H1, a direct relationship between identity and collaboration being unsupported. H3 and H4 have also been confirmed, with a partial mediation effect being observed for the relationship status – collaboration (H4), and a total mediation effect for the relationship identity – collaboration (H3). Additionally we have found out that the relationship status – collaboration takes negatives values when is not mediated by professionalism. Professionalism seems to be a strong predictor of collaboration, results consistent with the recent healthcare literature (Blumenthal, 1994; McNair, 2005). The two pathways described in study 3 are not maintained in relation to collaboration, identity not being directly connected with collaboration. The core result of this study is represented by the connections established between four professional related variables and inter-professional collaboration. While we have

found professional status to be negatively related to collaboration (when not mediated by professionalism), no relationship was found between professional identity and collaboration. The negative relationship between status and collaboration was reported previously in organizational identity studies, the higher the status the lower the identification with the organization (Boroş et al., 2011).

6.5. Conclusion

The findings of this study extended the results of Study 3. The additional identified relationship between professionalism and inter-professional collaboration brings empirical evidence that raising the professional status and by strengthening the perception individual associations with professionalism better inter-professional collaboration can be achieved. This does not contradict our initial assertion that professions themselves might be at the core of inter-professional collaboration failures. Moving away from professions into professionalism can proved to be a better strategy for achieving higher inter-professional collaboration in healthcare, as medical literature seems to also suggest (Brehm et al., 2006)

7. General Discussion

7.1. Introduction

Professional identity, status and power are key elements to the way professionals perceive themselves but it also determines how they interact with other professional categories. Quite often these defining elements of professions seem to be the main barrier in inter-professional collaboration, although it is becoming more and more obvious that inter-professional collaboration is vital for providing patient centered care in health care services. As the professional landscape is changing (due to e.g. technology, lifelong learning policies, the promotion of career pathways, and the new achieved flexibility of educational pathways), so does the way the individual perceives the impact of the profession on himself in terms of professional identity, status or degree of engagement with the profession. Decisions of staying in the profession or leaving the profession, engagement in collective actions or adoption of self-affirming strategies are all influenced by these changes at the level of the profession. Inter-professional collaboration will not stay out of the reach of such changes and it has, therefore, become vital to start addressing professional topics in a IPC context in a structured manner. Unfortunately, at the moment, the research in the area of profession related variables is rather divided in multiple research areas and specialties, without being the main focus of any of those. It is this very lack of conceptual clarity and integration what has motivated us to explore the internal dynamics of inter-professional collaboration.

7.2. Main Findings

The first step in our iterative process was to bring conceptual clarity to the area of (PRV) profession related variables. In order to better structure and understand the vast body of research accumulated in this area, we have conducted a concept driven literature review. We have preferred this approach for two different reasons: a) the topics of professionalism and professional related concepts (PRV) such as: identity, status and power have proved to be of interest for a very diverse range of researchers and different key concepts proved to appeal to different professional categories, therefore a systematic approach to our literature search end up to be unfeasible and of little help, and b) for this topic, a more knowledge-building and theory-generating approach seemed more appropriate, since the goal was that of clarifying concepts and the relationships established among them (Finfgeld-Connett & Johnson, 2013). With these arguments in mind, we have decided to use a more iterative approach to searching the relevant literature with the general objective of mapping the research landscape in the area of professional related concepts and inform our empirical research. We have opted for a mixed quantitative (data mining) – narrative approach in order to be able to a) explore large volumes of research and, based on it, identify a general conceptual pattern, and b) develop the automatically generated pattern into a theoretical model based on in-depth analysis of the relevant literature.

A framework for the conceptual organization of professional related variables has resulted by following this process. Four conceptual clusters have been, therefore, identified: the individual level cluster (micro level), the dyadic/interpersonal level cluster, the group cluster (mezzo level) and the systemic cluster (macro level). The individual approach includes variables such as status, identity, perception of roles and professional practice and captures the different ways that belonging to a professional group have an impact on the individual. The dyadic approach reflects closer interaction between 2 professional categories. Leadership, power, conflict and conflict management are topics addressed under this category and the best measurement approach is represented by a mix of round robin design and social

relations model for the analysis. The organizational/systemic approach cluster gathers profession related variables where the individual, dyadic or group perceptions have little relevance. It reflects more on the profession than on the individual experience and is better measured by objective indicators (e.g. the rank of a profession).

Based on this framework, as a next step, we have chosen to explore the mezzo level of PRV in connection with IPC. In order to study inter-professional dynamics we have used Kenny's (1994) model of interpersonal perception, which proved to be a valuable means of understanding inter-professional perceptions regarding nine different professional competencies: interpersonal skills, professional competence, leadership, academic ability, being a team player, being an independent worker, confidence, decision-making and practical skills. The Social Relations Model analysis has enabled us to identify that the four professional categories investigated (psychiatrist, psychologists, nurses and social workers) have reached consensus only about the ability to work independently. However, assimilation effects have been found for seven out of the nine variables (not for academic ability and teamwork), showing a low level of differentiation between targets by single perceivers. Finally and importantly, we found significant SRM relationship effects for all nine competencies. These reflect unique liaisons among the four analyzed professional categories.

Nevertheless, the main finding of this study was that perceived similarity of leadership abilities appeared to be the most important factor associated with increased inter-professional collaboration in mental health care teams. This result is consistent with the vast body of nursing research claiming for higher professional status of nurses in the health care system and for expanded leadership roles inside the therapeutic team (Duffy Joanne R R, 2002; Laflamme, 2010; Magennis, Slevin, & Cunningham, 1999). An additional gain resulted from this pilot study is the use and test of the applicability of Social Relations Model to inter-professional research. When further tested and developed, the SRM can prove to be a valuable instrument in analyzing and interpreting multiple perspective data.

A final step in our iterative research was to start the exploration of the micro level of PRVs and begin uncovering the unique relations established with IPC. In Study 3, by using a SEM approach, we have discovered that two different paths are available for increasing the perceived level of professional prestige (professionalism/strength of the profession), namely: a) pride – identity – professionalism and b) pride – status – professionalism. We have also found out that the association pride-identity was stronger than the association pride – status and the association professional status – professionalism is stronger than professional identity – professionalism. These preliminary results represents an incentive for further researching the area of PRVs, since results consistent with ours would offer a clear recipe for intervention programs aimed at increasing IPC in healthcare settings. Finally, in study 4, an additional relationship between professionalism and inter-professional collaboration has been identified and empirically tested. These results allow us to speculate that by raising the professional status and by strengthening the perception of professionalism better inter-professional collaboration can be achieved. This does not contradict our initial assertion that professions themselves might be at the core of inter-professional collaboration failures. Moving away from professions into professionalism can prove to be a better strategy for achieving higher inter-professional collaboration in healthcare, as medical literature seems to also suggest (Brehm et al., 2006)

7.3. Implications for Future Research

Although we have started to explore the PRVs in connection with IPC, further research is needed in order to a) build more robust theoretical models, b) further adapt and develop instruments and analysis frameworks adapted to IPC context, and c) create a broader empirical base for the analysis of PRVs.

While our theoretical framework has proved to be useful in guiding our research in the area of profession related variables (PRVs) in the context of IPC, further conceptual refinement is needed.

Concerning the use of SRM for IPC, while a new perspective can be obtained by using this model, there are still methodological issues that need to be clarified before generalizing the use of this model. Equally, the other newly tested instruments and analysis approaches will also need to be further developed.

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