

Meta Competency: Prerequisites of Msc Psychiatric Nursing Students Promoting. A Qualitative Study

Effat sheikhbahaeddinzadeh

Islamic Azad University Medical Branch of Tehran

Tahereh ashktorab (✉ taherehashk@gmail.com)

Islamic Azad University Medical Branch of Tehran

Abbas Ebadi

Baqiyatallah University of Medical Sciences, Tehran, IR Iran

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Abstract

Background: Due to getting optimal psychiatric nursing care, competent psychiatric nurses is required. One approach for MSc psychiatric nursing students` optimal clinical competency is clinical education. Identifying the factors affecting on achieving maximum scientific and technical abilities, education would be more effective. This study aims to explore the meta competency required in MSc students in psychiatric nursing.

Methods: This is a qualitative study with content analysis approach conducted on 21 participants in Iran. Sampling were done based on purposive sampling. Data were collected using individual semi structured and in-depth interviews. Collected data were analyzed using the conventional content analysis. The rigor of qualitative data were assessed using the 4 criteria proposed by Guba and Lincoln.

Results: Four dimensions were revealed: (1)Thinking and clinical reasoning skills, (2)Dynamic learning, (3)Research and evidence based practice, (4)Human and organizational management. Each category had several distinct sub-categories.

Conclusions: The results of this study showed that meta-competency for psychiatric nursing MSc students is multidimensional concept. The findings of the study can be used for educating MSc students in psychiatric nursing and evaluating meta competency. More studies on meta competency required psychiatric nursing students and designing an objective tool for assessing them meta competency in Iran are proposed.

Introduction

"Competency" is a wide and complicated concept(1) and one controversial subject of health care domain(2). Nursing competency is clinical, ethical and general competence(3-5) which is important in various nursing domains such as education, practice and management(1). "clinical competency" is closely related to care quality(6,7). It results in decreasing medical mistakes, increasing safe and cost-effective services(8). Clinical competency evaluating lets managers and nurses know on competencies, skills, and problems to solve(9). Besides, it provides opportunities for development and promotion of the nursing profession(8). The lack of it results in some problem in nursing services(7,10), compromises the patient and the community safety(11).

"Clinical competency" is visible abilities of member of a profession which includes knowledge, skill, value, attitude(12). Doing task with optimal outcomes, the skill of effective use of knowledge, and contextualization it with nursing care create competency of nurse in psychiatric settings(13). In other word, measurable pattern of knowledge, skill, ability, behavior, and other characteristics is called competency until a person does professional roles or performance successfully(14). Therefore competencies are measurable, are stated as behavioral terms(2,12), theoretically are according to positivism and behaviorism(12,15).

Clinical education is one of approaches for achieving clinical competency of nursing students(16,17). Acquiring competency through medical education called competency based learning(18) has attracted more attention since it causes learner $know \leq d \geq$, attitude, and skill $chan \geq sf$ or $perf$ or \min *gprofessional duties*(2). *ThesedaysstudiessuchasMahramet. al. (19) confirmonacti* hidden curriculum at practical education is more effective(18),it is not taught in direct, though. Ethical culture, norms, and rules transferring process related to feeling and behavior of students are modeled in clinical environment(18). Also, there are prerequisites for getting the higher competencies which must be learned. They called "meta competency" are not taught(12).

In other words, there is a holistic perspective in some studies on conceptualization and assessment competency(12). According to holistic perspective, competency is a set of knowledge, skill, and attitude for implementing nursing interventions context, also is considered ethic and values as a part of performance(21,22). As a sample, the definition of Sheikhbahaeddinzadeh et. al.(2020) on psychiatric nurse` clinical competency is: continuously reasonable integration therapeutic communication with technical skills, knowledge and clinical reasoning, emotion and values for psychiatric nursing interventions context(23);which includes in interrelated two domains. One domain is procedural. That is function and ability of procedures applying in various stages of process. It is ability of assessing and implementing therapeutic and inter professional communication. The second is meta competency,- a higher level of competency. It is cognitive, critical, and reflection ability. Cognitive ability is consciously use of knowledge to percept practical phenomena, and inform subjective reactions effects on judgment, critically, creatively assessing and deciding which should be reflected on nurse-patients interaction(12,24) or other interventions. In fact, meta competency is developing capacities such as judgment, intuition, and intelligence about competencies educated. In nursing science and art, visible, measurable and provable scientifically technics are taught but the irrational aspects of creativity, emotion and intuition should be learned(25). Dharma et. al.(2019) stated due to the shortage of nurse, meta competency qualification helps to improve nursing care quality. Competency alone is not useful but meta-competency development of human sources results in taking care independently. It is possible by developing competency by training skills, thinking skill, inter professional cooperation, and increasing knowledge(20). Zafarnia et. al.(2017) introduced moral competency as meta competency in nursing(5). Iobst et. al.(2010) quotes Williams et. al.(2003) the set of individual knowledge, skills, and attitude in social cultural context as meta competency is necessary for effective care(26,27). As many of the higher level competencies impress on other competencies and cause to be able to use in new situations(27). Many of skills and competencies are not taught during course. There is no specific plan for them(28,29), Therefore, it is important to define meta-competency required for psychiatric nursing students who are responsible to continuously adopt interventions to cultural context of client and are evaluated according to that context(23,30). This study aims to explore meta-competencies required psychiatric in MSc students in psychiatric nursing.

Methodology

This study is a part of a project explained clinical competency of MSc psychiatric nursing students. This was a conventional quantitative content analysis. It was conducted from October 2019 to July 2020 at universities hold MSc psychiatric nursing program in Iran. The participants were selected using the purposive sampling method. In this method were looked for subjects who are rich in the issue under study and capable to express the facts. Informed written

and oral consent was obtained. The sample volume was determined on the base of the time of data saturation. After 18 interviews, no new information was obtained indicating data saturation. To make sure, 3 more interviews were done. 21 participants were MSc psychiatric nurse, psychologist, psychiatrist.

The inclusion criteria was psychiatric nurses and psychiatrist who have experience more than 2 years (Table 1).

The required data were collected through individual deep and semi-structured interviews which were conducted in a quiet place and optional for participants. The interview included open-ended questions and based on the interview guide. It began with demographic information, work experience, and went on with a general questions on the competencies required. Some probing questions were asked to gain more information and elucidate the topic, that is, "could you explain more?" The interviews lasted between 20 to 40 min. The interviews were recorded by an MP3 player after the completion of each interview. It was carefully heard and then it was transcribed using the Microsoft Word processor.

Conventional content analysis based on deductive approach of Granhim and Landman (29) was used to analyze the data. The stages are as follows: 1- To transcript and review interviews over and over to correctly understand. 2- To extract the semantic unites and categorize in one class as distilled unites, 3- To summarize, categorize and label them, 4- To organize sub-categories based on similarities and different, 5- To select suitable topic which covers all categories. In this study, each interview was transcribed and read several times, then were extracted the primary codes or open codes. After each new interview, the previous group of codes were revised or merged or was created a new one. That, categories and subcategories were created based on similarities and different. The items disagreed were discussed until an agreement was reached. In this way, the main themes were abstracted through categorization and the relation between the categories were found out.

The accuracy and throuthworthness of data was based on Lincoln and Guba approach (1994) (31,32). Credibility was promoted with the application of different strategies such as member check, prolonged engagement with participants, immersion in data, continuously comparison categories in aspect of similarities and different also use variety in participants regarding age, gender, work experience, and education groups (triangulation). Regarding transferability, was attempted to elaborate on all the details so that there was no ambiguity. For dependability, 2 outsider observers were asked to survey and approve the data collection and analysis process. Regarding confirmability the gleaned data were documented in all stages of the study as a detailed report.

Ethical consideration

This study is part of a bigger study and approved by the committee of ethics in research at the Islamic Azad medical science university in Tehran with ethical code of IR.IAU.TMU.REC.1399.171. The required permission was obtained from the intended universities and hospitals. After explaining the research purpose and procedures to the participants and making them sure about confidentiality of information, the right for voluntary withdrawal from study at any stage, informed oral and written consent were obtained.

Participant	Gender	Age (y)	Marriage	Teaching Experience (Y)	Clinical Experience (Y)	Education	Position
1	Male	50	Married	30	4	MSc	Faculty
2	Female	48	Married	18	19	MSc	Faculty/education supervisor
3	Female	46	Married	13	4	Nursing PhD	Faculty
4	Male	40	Married		20	Bachelor	Head nurse
5	Female	27	Married		45days	MSc student	
6	Female	44	Married	10	18	MSc	Psychologist
7	Female	35	Married		11	MSc	Head nurse
8	Male	51	Married		22	Psychiatrist	Dean
9	Female	34	Married		12	MSc student	
10	Female	33	Married		12	MSc student	
11	Female	30	single		1	MSc student	
12	Female	35	Married	11	13	MSc	Faculty
13	Female	37	Married	1	11	PhD student	Education supervisor
14	Female	47	Married	9	13	MSc nursing/PhD psychology	Faculty
15	Female	40	Married	7month	4	MSc	Courtship
16	Male	70	Married	50	50	MSc	Faculty-manager
17	Male	50	Married	16	27	MSc	Clinical supervisor/
18	Male	39	Married	10	10	MSc	Clinical supervisor
19	Female	36	Married	4	10	MSc	Psychiatric nurse
20	Male	55	Married	8	26	PhD	Head nurse
21	Female	47	Married	14	3	PhD	Nursing board member

Results

From 21 participants, 15 were female and 6 were male. Their age range was 27-55 years, with a mean age 42.35 ± 10.8 , mean teaching experience 4.3 ± 1.9 , clinical experience 3.5 ± 1.6 . Based on content analysis, one of the themes was meta-competency which extracted from "thinking and clinical reasoning skills", "dynamic learning", research and evidence based practice, "human and organization management". Each category has several subcategories (diagram 1).

1- Thinking and clinical reasoning skills: The first dimension is thinking and clinical reasoning which is "holistic perspective", "critical and creative thinking", and "clinical decision making". Student must consider all effective factors on health of client and family based on holistic perspective, critically analysis challenging situations, seek creative solution and intervention, solve problem with proper decisions, according to scientific reasoning take care client and family. Nurses with scientific reason will be able to assess factors affected on health, deal with, solve problem by properly intervening. Clinical reasoning empowers nurses in decision making.

1-1 Holistic perspective.

Holism is one of the principles of thinking skills and clinical reasoning that psychiatric nursing students should plan their interventions by considering all inseparable and effective components on the client's health. Participants believed that the MSc psychiatric nurse student did not learn holistic skills only with direct education, but it is learned in the clinical environment. Most of the psychiatric nurses emphasized holistic view, for example, participant number 2 stated:

".. That's not what we tell the student. That's what he has to learn in the workplace. Then he/she him/herself will come to touch it. We just teach to watch various aspects of things. whether student really make the right decision or not, I don't know..."

1-2: Critical and Creative thinking:

The majority of participants emphasized on the necessity of addressing critical and creative thinking in the education of postgraduate students and believed that awareness of the details of the problem and evaluation of multiple decisions before doing, and finally solving the problem requires critical and creative thoughts. As each patient has its own needs, nursing care needs unique creative solutions that cannot be learned by cliché training. Also, just critically thinking is not enough for nurses, but they should implement the thoughts in practice. Therefore, the M.Sc student of psychiatric nursing in order to perform nursing care should identify health affairs, situations, challenges and health problems with a blend of innovation, flexibility and support. They should analyze the information and design, implement and evaluate a creative care plan. Critical thinking increases the power of clinical decision-making in diagnosis of patient needs and selection of the best practices and nursing methods. The university faculty, with 20 years of experience, said: "... The skills of critical thinking.

"... Critical thinking skills. Problem solving skill. These are what they must learn and do over courtships of higher degree"(P. 14).

1-3. Clinical decision making.

Clinical decision making is one of the interventions and strategies that have an effect on the process of improving the patient's clinical condition. In particular, the psychiatric sections have many ethical challenges. Decision-making under uncertain conditions is dangerous and difficult. For example, a psychiatric student with 11 years of clinical experience stated:

"... I'm very sensitive about how decision-making in situation because, for example, I may see something new which hasn't been at all as yet, I may see some events new that I couldn't solve with my information. While I need to know. how to manage that . I would be able reason.... " (P. 9)

2. Dynamic learning. The second dimension is dynamic learning, extracted from "interest and motivation", "application of knowledge in practice" and "ongoing learning". Student interest in the field, interest in helping the patient, motivation to serve and promote the health of the client and society, result in providing compassionate nursing services and care, also the student constantly tries to improve his knowledge and update his scientific and professional information, and continuously learn. Participants believed that the post graduate student, in addition to his bachelor's degree in nursing, should have sufficient knowledge on health care, personality characteristics and normal/abnormal behaviors, and appropriate interventions to solve or decrease health problems . He is able to consciously apply his knowledge according to the conditions in practice. Often, the wider the knowledge, the more skills for application in the situation. So, The student is supposed to learn continuously.

1-2-Interest and Motivation.

Participants believed that interest in the nursing profession, pleasure and satisfaction of helping fellow human beings were necessary for compassionate nursing care . They believed that it would not be possible for the patient without those . The student's disinterest to the psychiatric nursing profession will also bring tension and conflict of role.

The faculty said:

".. he should be enthusiastic to the patient. He accept psychotic patients as a person with mental disorder. Sometimes you see someone who has come to nursing, psychiatric nursing, but practically he doesn't like to work as a psychiatric nurse(P. 1)..."

2-2. The application of knowledge in the practice.

Psychiatric nursing students should be able to appropriately object the theoretical knowledge learned at the university, such as health knowledge and physical and mental disorders at different ages, specialized interventions of psychiatric nursing, medication and non-pharmacological treatments in the clinical. The faculty, with 13 years of experience, stated:

"I know that the practical psychiatric nurse has these two domains, i.e. he has a very strong scientific knowledge of all the diseases and should be able to bring in the clinical for his patient. To be able help in the treatment of his patient. The theories learned about the milieu therapy , the communication therapy .and so on for the mentally ill, a psychiatric nurse who is working in the department should be able to implement those for patient. In fact, scientific subjects."

2-3.Lifelong Learning.

Participants stated that the topics and headings of the educational program are incomplete also the knowledge gained during the 2-year master's degree course are not enough to become an expert in the profession. Besides, due to the complexity of the modern world, increasing diseases, changing care and treatments, the development of technology and information, students should constantly reevaluate their information for individual development. Psychiatric section supervisor mentioned: *"...Curriculum is a bit incomplete. Psychiatric nursing care was studied over bachelor degree, but it isn't included therapeutic issues especially in clinical, for example MSc psychiatric nursing students are not taught on psychotherapy, CBT and its types. These would be useful(P13).*

Participant number9 about ongoing learning said:

"... I feel I must keep knowing more. we should keep discovering more . Not satisfying in I hold Msc degree, so I know a lot! Somewhere I feel empty, I feel weak, then I go... exemplary to read an article, to ask for specialist..."

3. Research and Evidence-based practice. The third dimension for the meta-competency theme, are the research and evidence based practice. Participants believed that at the master's level, a variety of research methods and approaches were taught, as a result , students are expected to use the skills learned to solve the problems of the client, society, and to develop the knowledge of the psychiatric profession. Effective and novel therapeutic approaches were searched and are used as intervention source.

1-3. Research.

Participants considered different research methods as one of the skills learned at the master's level. Therefore, after assessing social environment needs, the student should research to solve the identified problem then, share the results with others. Thus, in addition to solving the problems of each community, it will update colleagues and expand the knowledge of psychiatric nursing.

The university faculty says, *"in fact, as psychiatric nurse was taught about research articles and researching, definitely they are master at researching, they are familiar to translation, research and write article more. to Start writing articles about the environment where he's working on. Implement novel approaches of treatment, inventions related to psychiatry."* (P. 12)

2.3. Evidence Based Practice.

According to the participants, one of the missions of psychiatric nurses is to update the information through studying and translating the latest scientific achievements and implementing scientific knowledge approved in the field of psychiatric nursing care. So, sharing knowledge gained results in expanding the knowledge of psychiatric nursing, developing the profession and improving the quality of care. The university faculty with 13 years of experience stated: *"to be able to read new articles, to translate new information. To be able to interpret and analyze it. To be able to train the new results found out for the personnel. He is going to use new methods, and he would applied a series of newer methods gained by translating of Article something"* (P. 12)

4. Human and Organization Management. Most of participants considered the role of Msc psychiatric nurses as controlling the aggressive patient in terms of self-harm or others, continuous supervision of patients, guidance, cooperation and quality control of the services by colleagues and medical teams.

1.4. Supervision and control of psychiatric patients.

Participants believed that methods of communication with aggressive patients, delirious thoughts or suicides are taught, but the art of proper use of different communication techniques and interventions appropriated to the patient and obtaining satisfactory results are not taught but they are obtained. On the significance of continuous monitoring and watching of psychiatric patients, the education supervisor of psychiatric setting and university faculty stated:

"I have to learn how to calm him down who is now agitated, not to make it worse myself."(P2)

2-4. Leadership and management of personnel and psychiatric section.

Some participants believed that master of psychiatric nursing who specializes in psychiatric nursing should supervise and direct the nursing care performed by other colleagues, and take over the management of the team. In this way, the quality of services increases by coherently carrying out care and intervention. The head nurse of psychiatry department with 28 years of experience in management stated:

"... generally Someone who earns a master's degree is hired him in the management ranks, as a mentor, or head nurse"(P. 20),

Although some participants had the opposite belief and believed that only by passing two years of master's program, the student could not acquire managerial skills. Even maybe a nurse with bachelor degree would have a higher management skill which has been developed by gaining experience. Participant No 20 put it:

"... Of course, again, it is based on the efficacy. There's a time when this person's experience is so high that they won't let someone who's recently hold MSC gets replaced. Even if he/she had PhD degree. The psychiatric department has a lot of responsibilities, a lot of details in the psychiatric ward, so they don't put anyone in charge of the psychiatric department..."

Discussion

In the present study, "thinking and clinical reasoning skills", "dynamic learning", "research and evidence based practice" and "human and organization management" were obtained as the required meta-competencies of master students of psychiatric nursing. MSc student of psychiatric nursing will dynamically and constantly develop individual specialized knowledge about psychiatric care, research, human management and organization to gain up-to-date knowledge and with holistic perspective, he can investigate and analyze challenging situations critically and creatively and solve the problem of the client or ethical and clinical challenging situation, by the most appropriate decision makings and clinical reasoning.

Competence has become an important issue of health care(34). Different qualifications often overlap and can not be obtained simply(35). The required competences and meta-competences are interrelated (12, 24). Studies have found out many factors effective in enhancing clinical competency such as experience, environment, use of opportunities, motivation, theoretical knowledge, individual characteristics(35), clinical environment, organization, organizational culture, integrity of educational programs, application of technologies, effective management, control and supervision(36). But according to Bogoyanov et al.(12) this is a holistic perspective. Meta-competences influence in other competences(20). In this study, one of the meta-competency dimensions required for postgraduate students of psychiatric nursing is "thinking, and clinical reasoning skills". In most studies, the importance of critical thinking has been pointed out, including the study of Jormfeldt et al. (2018). They has considered it as one of the individual characteristics(37). In the study Van Der Merwe and Verwey (2007) in addition to the underlying abilities of the profession that develop people's competence, characteristics such as key cognitive ability were introduced as meta-competency(38). The use of cognitive skills and intellectual abilities leads to the professional development and independence (25) and the reduction of stress(39). Critical thinking is an essential component of clinical decision making (7) and one of the effective factors on nurse's clinical competency (34, 7). While Kerman Saravi et al (2011) in their study expressed critical thinking skills of undergraduate nursing students is weak (40).

In another study, Zafarnia et. al. (2017) introduced moral competence as meta-competency(5) while in the present study, meta-competence has dimensions and ethical challenges are one of its subsets, and meta-competence was introduced as the ability to critique, analyze and make decisions for any complex clinical situation. Therefore, one of the required meta-competencies for postgraduate students is to develop critical thinking abilities and clinical reasoning.

The second dimension of meta-competency is dynamic learning. Many studies have stated the ability and professional competence are necessary to commitment to learning for a lifetime (42 , 41) and in this study, as dynamic learning was mentioned. Yazdani and Farajpour (2017) considered the grand competence or meta-ability to include a lifelong learning, self-centered learning, reflection and self-monitoring, receiving internal and external feedback, measuring performance and outcomes (41). The mentioned dimensions in Yazdani and Farajpour study are in order to achieve and promote the educated knowledge as a dynamic process, also the present study emphasizes on dynamics. In the present study, participants did not mention student reflection and feedback (internal or external) that might require a deeper investigation of the subject. Also Bogo et. al. (2013), William et. al. (2008) considered ongoing learning and theoretical knowledge assessment as the dimensions of meta-competency (27 , 12). Obviously, knowledge brings strength and knowledge of something or how to do something is a hidden factor in education(25). As Ebadi et. al. (2014) and Mosksoy et. al. (2017) emphasized its importance (44 , 43). But one of main challenges is the gap between theory and practice in nursing . Despite passing theoretical units, the student is unable to use his knowledge in the clinical environment(7). In the present study, the application of theoretical knowledge of psychiatric nursing, psychology and nursing in practice was suggested which is consistent with William et al study (2008).

A lifelong learner in her field is capable and has initiative, independence, curiosity and confidence and enjoys learning , considers problems as a challenge ,is going to change and improve(45). The purpose of the educational system should also be to teach learners how to continue learning after graduation(46). The process of learning throughout the life is done through the process of self-centered learning. Supporting and cooperating student to increase knowledge, to analyze and reflect situations, and to identify the learning needs based on internal and external feedback(39). In the field of psychology, interpersonal relationship and mental ability such as self-awareness, reflection and self-evaluation have become very important, even the ability to reflect action, analyze and modify individual performance and development is considered super meta competence, because reflection and the process of reviewing performance or the acquired experience are some mental reactions that lead to better understanding and learning(12). Besides, in the present study, the existence of interest and motivation for service is a stimulus for individual learning and development, as well as improving the quality of services, as Van Der Merwe and Verwey (2007), Fukada et al (2018) also mentioned the motivation from the necessary meta-improvements (38 , 24).

The third dimension of the meta-competency themes in the present study is "Research and evidence based practice", which Yazdani and Farajpour referred to. Yazdani and Farajpour (2017) stated: "They should compare their performance and outcomes with acceptable standards and use this data to improve their services, the fact that this self-regulation requires knowledge, skills and necessary attitudes in the main areas of informatics, evidence based practice and systematic improvement. So that it should be able to find answers to clinical questions through searching data bases and available resources and using the design of studies and statistical findings to evaluate clinical information and clinical outcomes, and the data obtained from the information system of the care system will be used to improve the quality of care services" (41). This process improves patient outcomes and reduces errors, while the results of some studies indicate that only 10-40% of patients receive care based on scientific evidence. According to Pashae et. al.(2016) knowledge and process percept has an impact on its use(47).

Finally, the 4th meta-competency was "human and organization management that is consistent with Brown study (1993). Brown stated the management techniques and strategies are taught, assessed, and measured but its higher aspects such as creativity, imagination, excitement and imagination cannot be measured. A manager can be taught to show his skills, but a smart and talented person, along with his management knowledge, may acquire meta-competencies without receiving training (25). Leadership competence is the influence on others, learning and knowledge of information processing, management talent, development of executive team and insight(35). Nursing managers with a decisive role in the mission and culture of the organization, and with the help of leadership skills, can improve the clinical competence of the psychiatric nurses and thus the quality of care(48).

Therefore, as stated in the present study, in addition to continuous acquisition and promotion of competence in the specialized knowledge of psychiatric nursing, research, management and leadership, the psychiatric nurse ability to execute his knowledge consciously in accordance with different situations requires the knowledge and art.

Conclusion

The findings of this study showed that the required meta-competencies of MSc student of psychiatric nursing have different dimensions such as thinking and clinical reasoning skills, dynamic learning, research and evidence based practice, human and organization management. The importance of this finding is in the education of psychiatric nursing students and the method of meta-competency assessment so that by acquiring and nurturing that, psychiatric patients receive better care. Further studies on the required meta-competency of psychiatric nurses as well as designing objective tools for assessing the psychiatric nurse meta-competency in Iran are recommended.

Declarations

Ethics approval and consent to participate : All methods were carried out in accordance with relevant guidelines and regulations.

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Authors` contributions:

Sheikhbahaeddinzadeh designed the project, collected data, interviewed, and wrote the manuscript draft. All the authors involved in data analysis and reviewed the manuscript.

Dr. Ashktorab is corresponding author . She and Dr. Ebadi supervised, gave consult, and edited manuscript.

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Availability of data and materials: The data that support the findings of this study are available from corresponding author but restrictions apply to the availability of these data, which were used under license for the current study, and so are not publicly available. Data are however available from the authors upon reasonable request and with permission of corresponding author.

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Figures

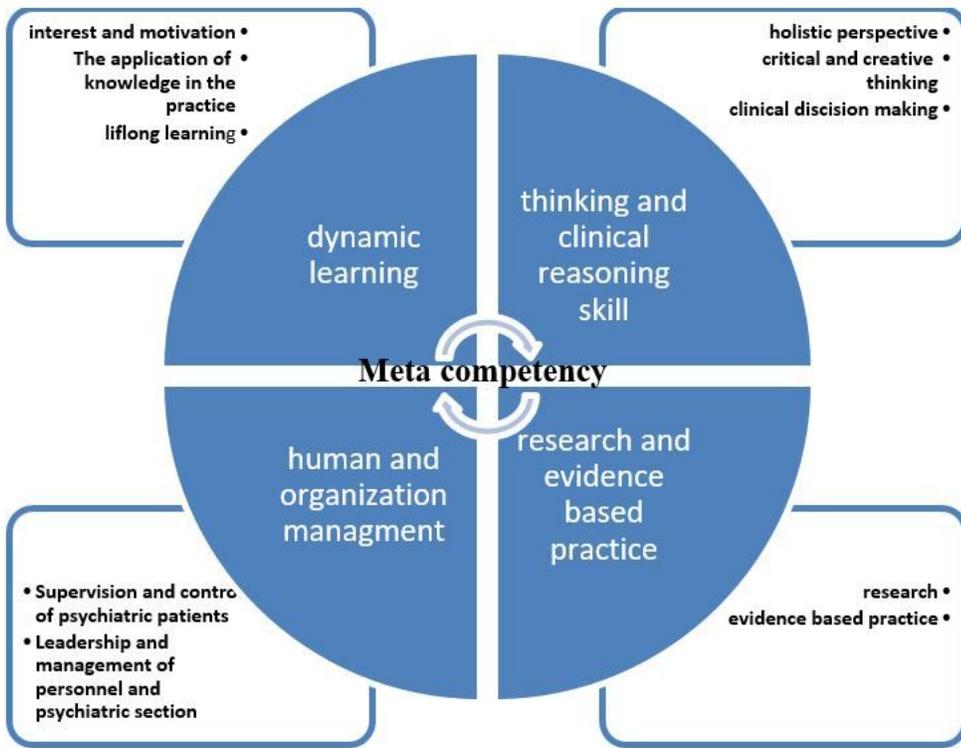


Figure 1

categories,subcategories of meta-competency