

# Nurses' Views on What Helps or Hinders Using Cognitive Support Strategies in Long-Term Psychiatric Hospitals

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## Abstract

**Background:** Despite the fact that Cognitive Adaptation Training (CAT) has demonstrated to be effective in helping people with severe mental illness (SMI), there is limited use of it in the usual provision of psychiatry.

**Objective:** This paper investigated the issues that support or impede the process of CAT in long-term inpatient practice, namely the implementation of CAT in the view of the nursing staff. It also looked at the relationship between capability, opportunity, motivation and appraisal in com-b behavior change framework. Forty-six mental health nurses were interviewed with the help of Measurement Instrument for Determinants of Innovations (MIDI) and the questions developed specifically on the topic of CAT. Pearson correlation was used to examine relationships among important elements of behavior. This study describes nine important barriers-mostly organizational level and 13 facilitators that were mostly associated to the intervention and the nurses. Mediocre correlations were obtained between capability and opportunity, capability and motivation and capability and appraisal. A close relationship was established between appraisal with motivation. Organizational challenges must be addressed, while strengths at the intervention and provider levels should be leveraged to enhance CAT adoption.

**Keywords:** Cognitive Adaptation Training, Severe Mental Illness, Evidence-Based Nursing, Psychiatric Rehabilitation, Implementation Science, Behavior Change (COM-B), Inpatient Mental Health Care.

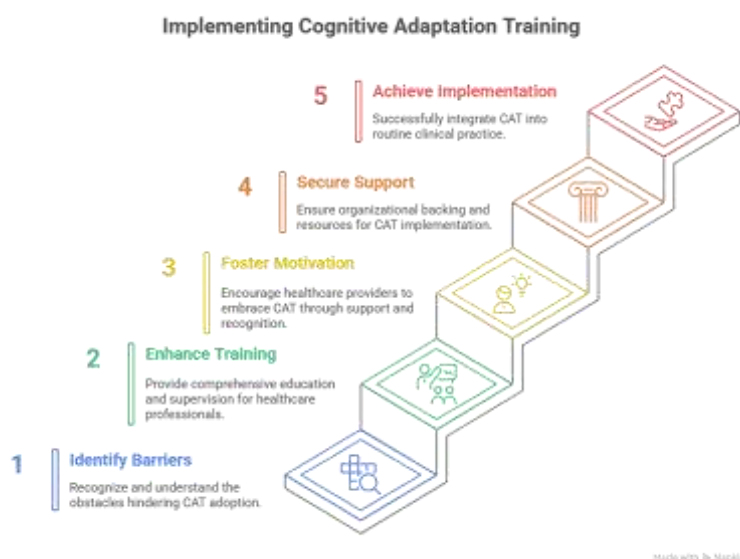
## 1.Introduction

The problems of patients diagnosed with severe mental illness (SMI) are complex and far-reaching affecting both cognitive, emotional, and behavioral areas of life, which impacts significantly on the character of their functioning in everyday life. Such difficulties usually require prolonged psychiatric treatment, when people have to receive the support in different spheres of life at every stage. The need to employ rehabilitation intervention is however limited by the fact that although the importance of rehabilitation interventions in psychiatric care are becoming increasingly recognized most rehabilitation interventions lack addressing of basic skills necessary to meet daily functioning and this is of particular importance to the long stay inpatient institutions. One such intercession whose bona fide was identified to be able to bridge this gap is Cognitive Adaptation Training (CAT) which focuses on enhancing the functional capacity of individuals with serious mental health problems. CAT does not revolve around the importance of cognitive training but seeks to overcome cognitive deficits through the use of compensatory strategies along with environmental supports that address a person on an individualized level. The interventions are intended to aid in major life activities including personal cares, medication adherence, and a sense of belonging to the community, which are the essential elements of life that get ignored in the conventional psychiatric care models(1). Nevertheless, the application of CAT has been strongly demonstrated in enhancing the subjects with SMI, and although its use in the clinical practice has been adopted in the clinical practice in the past years it has not received wider adoption. Transferring the laboratory results to the bedside has been a problem in many disciplines, such as mental health care, and adopting CAT in long-term inpatient psychiatric units is no different.

The gap between the design and the application of evidence-based interventions does not apply to CAT exclusively but it is a ubiquitous phenomenon in the health care industry. Although CAT has proven to be effective in improving the daily functioning and outcomes of people with severe mental illness with better life qualities, comprehensive use of CAT in various psychiatry units is not adequate. The causes of this implementation gap are many, which has to do with barriers at an intervention level, a provider level, and an organization level. These obstacles go as low as the knowledge and training gaps among healthcare professionals and issues with the structure of the organization, including inadequate resources, poor management, and the lack of presence by an institution. Such barriers should be identified and understood in order to come up with specific measures that may

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help bring CAT into routine clinical practice so that more individuals with a severe mental illness would gain access to this treatment method since it is one of the effective interventions(2). The research under consideration addresses these facilitators and barriers to the adoption of CAT as a nursing perspective, which are valuable to understand the ways in which CAT could best be implemented in long-term psychiatric care facilities.



**FIGURE 1** Implementing Cognitive Adaptation Training

The insufficient training and experience of medical workers, especially mental health nurses, with the intervention is one of the main causes of the poor adoption rate of CAT in clinical practice. Even though CAT has been proved to be the effective method of improving daily functioning of people with severe mental illnesses, the reality is that it cannot be used in an inpatient health facility due to the absence of the detailed and practical knowledge among nursing personnel. Nurses, who are less familiar with the postulates of CAT and methods it implies, will be less predisposed to adopting it in their routine work, as they will not feel secure enough to implement this intervention efficiently. At other times, there is inadequate training that creates the perception of the complexity and the feasibility of the intervention, and this only worsens the disparity between research and practice. Application Nurses are frequently supposed to inculcate novice evidence-based practices, such as CAT, into their habits without proper backup or education and therefore the practise is often inconsistent and shallow. Therefore, CAT can be implemented effectively, only with a broad training design, which will not be cut down to the day of instruction, but also to expanded instruction, supervision, and on-the-job practice. It is important to introduce a training program to make sure that nursing workers are prepared with the current knowledge and skills to apply the intervention successfully; the program has to stress the necessity of CAT, offer comprehensive instruction on the theoretical background, and provide the possibility to practice the use of the intervention under the supervision of qualified instructors(3).

As well as the training, organizational factors also contribute to successful implementation of CAT in a significant way. The organizational situation whereby CAT is about to be implemented may support or non support adoption. The roles played by availability/ lack of institutional support, the availability of resource, and management stability determine the extent to which an intervention such as CAT can be implemented in regular care with ease. The existence of no formal documentation or even organization support of the intervention is one of the most important organizational barriers identified in the studies regarding the implementation of CAT. In absence of well spelt policies or guidelines on how to use CAT in the institution; nurses might have their doubts over the priority attached to the intervention; they might even lack confidence that the management fully supports the intervention. Such absence of official recognition may bring doubt and reluctance on the part of the health practitioners who may be wondering the importance of spending their time and resources to make an intervention that lacks institutional support. Moreover, the instability within organizations, including multiple staff or management changes, as well as shifts in policies and approaches to treatment, may also lead to the discontinuity of care and impair the ability of staff members to invest into new programs, such as CAT. To go beyond these obstacles, organizations should consider developing a clear and consistent system of the usage of CAT, including the formal

description of this method and designating the team of coordinators to manage this implementation and provide the required resources. Also, the leadership participation is crucial in promoting the culture that helps embrace the evidence-based practice such as CAT. Showing care to the intervention is quite an effective message that the management has given to the nursing staff and motivates them to take an active part in the implementation program.

Motivation and involvement are the two other key issues when it comes to the successful implementation of CAT, as the healthcare providers that will have to provide the intervention are bound to be motivated and involved to make it work. Nurses may perform every necessary training and be supported in an organization, but whether they are ready to use CAT will depend on the desire to apply it. There are many factors that can motivate a person, such as a perception of the effectiveness of intervention, an idea that it is consistent with the professional duties, and the encouraging attitude of other coworkers and superior employees. When Strategists feel that CAT is a beneficial instrument to increase the autonomy and the quality of life of individuals with severe mental illness, they will be at a higher chance of being motivated to implement it in their practice. Nevertheless, burnout, the feeling of failure, or a negative attitude towards the intervention may wound the motivation. To ensure maximum motivation, we should be able to give nurses a clear picture of why CAT can positively affect patient outcomes and also provide frequent support and encouragement of the process of implementing it. This can be provided through periodic supervision, feedback and provision of discussion and reflection. Also, the assignation of local champions to the nursing team may be considered to promote the sense of ownership and responsibility of the intervention, which in turn may contribute to the motivation and involvement(4).

Any framework serving as a useful conceptualization of the factors involved in the implementation of CAT in inpatient settings is the COM-B model (Capability, Opportunity, Motivation, and Behavior). The model assumes that behavior change including the use and adoption of new practices occur by interaction of individual capabilities (knowledge and skills), opportunities (resources and support) and motivation (desire and belief in the intervention). In the clinical example of CAT, it implies that nursing personnel should believe they are able to use the given intervention, possess opportunity to do it, and be encouraged to perform the action. These interactions are essential in deciding whether the CAT is to be successfully implemented into practice. As an example, when nurses consider that they do not have any ability to implement CAT, they are unlikely to attempt to do so, no matter how encouraged they get by their coworkers or supervisors. Likewise, they might be able and willing to use CAT but with no chance to do so because they do not have access to the resources required and the organizational support such initiatives might be requiring. Thus, it is critically important to deal with the obstacles on all three levels: capability, opportunity, and motivation in order to achieve successful CAT implementation.

To summarize, the practice of Cognitive Adaptation Training in long-term inpatient institutions of patients with severe mental illness is a complicated process which one has to take a number of factors into consideration. Provider motivation, organizational support, and training are the most decisive factors that should be considered in an attempt to integrate CAT into clinical practice. Upon locating and dealing with these obstacles to implementation and profiting by the enablements, the mental health care facilities will be a step closer to achieving the probability that CAT will be implemented and maintained so that it will eventually make such a difference in terms of how well or how poorly people with severe mental illness will be able to function in their day to day life.

## **2.Methods**

### **2.1 Study Design**

The evaluation of post hoc process in the frames of the large, multi-center randomized controlled trial (RCT) aiming at determining the efficacy of Cognitive Adaptation Training (CAT) as a nurse-based intervention carried out in long-term inpatient care was used in this study. The work was carried out as a process evaluation to study the factors that impacted the application of CAT through the prism of employees who participated in providing the intervention. Evaluation was conducted at the end of intervention sessions of the RCT, consequently, the outcome of the initial trial was unknown by the moment of data gathering.

#### **2.1.1 Randomized Controlled trial (RCT)**

This study became a part of the primary trial that consisted of random assignments of nursing groups located in different inpatient psychiatric settings to the CAT group or treatment as usual (TAU) group. The primary goal of the RCT was to evaluate how CAT can be used to enhance daily functioning, cognitive capital, and quality of life in people with a severe mental illness (SMI). The process evaluation was carried out on implementation of CAT

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in the CAT group, examining the processes that either assisted or obstructed the successful integration into routine practice.

### **2.2 Participants**

#### **2.2.1 Inclusion and exclusion criteria**

The nurses in the inpatient units under the CAT group could take part in this study. Fourteen participants were used (3 male, 11 female) including 12 nursing teams. They in turn invited all interested nurses to take part in the research and included those who gave oral informed consent in order to make the results representative. The study excluded four nurses, whose change in employment occurred after the recruitment stage(5).

#### **2.2.2 Demographics of the nurses**

The participants of the study were mainly registered nurses and who had different levels of experience working in mental health settings. Specific demographic information such as age and level of experience was also taken in order to analyse possible correlations which exist between these two factors and the application of CAT.

### **2.3 Intervention: Cognitive Adaptation Training (CAT)**

#### **2.3.1 CAT overview**

Cognitive Adaptation Training (CAT) is an intervention aimed at strengthening everyday functioning of persons with severe mental illness through compensating cognitive deficits. Contrary to conventional cognitive training, CAT is not intended to enhance cognitive functions per se, but rather place the emphasis on compensatory mechanisms and the primary use of environmental approaches in helping individuals to cope with daily tasks, including personal hygiene and medication management as well as social interactions.

#### **2.3.2 CAT implementation**

The study involved training of nurses in the CAT group in the administration of CAT interventions on the basis of the CAT protocol in a one-day didactic training. Trained expertists delivered the training and explained to the nurses how to evaluate the functional requirements and cognitive conditions of the service recipients along with inventing customized treatments. Nurses then played the role of introducing and fixing of CAT interventions to one to three service users; the wider team aided the continual use of the interventions as part of their regular practices.

Introducing the use of CAT did not demand any extra time and staff members to be commuted to the daily routine of the nurses. This made the intervention practical without massive structural changes or additional resources due to the requirements by the existing clinical practices.

### **2.4 Data Collection**

#### **2.4.1 Measured Instruments**

The Measurement Instrument of Determinants of Innovations (MIDI) was the leading instrument in collecting data since it was designed to gauge the determinants of health interventions implementation in healthcare facilities(6). The instrument has 29 items and it includes four subscales:

- Factor-Based Treatment (e.g. clarity, relevance, and complexity of the intervention),
- Provider-Level Factors (e.g. motivation, self efficacy, and knowledge),
- Organizational-Level Factors (e.g. support, resources and organization commitment)
- Socio-Political Context (e.g. compliance with the rules).

In its turn, the MIDI was applied in the form of a semi-structured interview to all nurses, with quantitative and qualitative information being obtained. This facilitated effective insight of the factors that affected the implementation of CAT within the nursing staff point of view.

#### **2.4.2 CAT-specific questions**

Besides the MIDI, a set of questions special to the CAT was established by the researchers to be used to determine the knowledge and experience of the nurses regarding the CAT protocol. The questions in this category concerned these issues: attendance of the CAT training session, knowledge of the laws of CAT, and possibilities of the nurses to effectively implement CAT interventions. The above questions aided the evaluation of the direct effects of the training and the difficulties experienced by the nurses in its practice.

### **2.5 Data Analysis**

#### **2.5.1 Analyses of Quantitative Data**

Data with the application of MIDI and CAT-specific questions gathered was then interpreted by descriptive statistics (e.g., means, standard deviations, and percentages) in determining prevalent obstacles and supportive factors to the application of CAT. The barriers and facilitators were identified by those items whose participants

disagreed with the statement using values above 20 percent and agreed above 80 percent. This method enabled the researchers to categorise certain factors which promoted or undermined the introduction of CAT into the clinical practice.

### **2.5.2 Bivariate Correlation Viewing Correlation between variables**

Pearson r correlation coefficient was used to conduct bivariate correlation analysis to study the relations between the key variables. This discussion looked at the connections between the concepts of capability, motivation, opportunity, and appraisal in the framework of the COM-B model. The COM-B model assumes that the interaction between the capability (knowledge and skills), motivation (desire and belief in the intervention), and opportunity (resources and support) of a person determine behavior change (adoption of CAT in this instance).

### **2.5.3 Descriptive Analysis**

A thematic analysis was employed to analyse the qualitative data obtained through the semi-structured interviews. This method enabled the researchers to absorb regular themes and patterns in the answers(7). Inductive coding approach was applied in this study which consisted in the way similar responses were organized and the way the interpretation of meaning was realized in these responses. The qualitative data gave further information on the perceptions of the nurses about the barriers and facilitators to the implementation of CAT and were in addition to the quantitative results.

## **2.6 Ethical Considerations**

### **2.6.1 Informed consent**

The study underwent oral informed consent by all the participating nurses prior to their participation in the study. All the nurses were clearly informed concerning the objective of the study, the fact that they were voluntarily to participate in the study, and that they could opt out of the study any time. Since the research targeted the experience and perception of the healthcare professionals, ethical permission was received by the corresponding institutional review boards.

### **2.6.2 Confidentiality**

All data were anonymized to make it possible to guarantee the privacy and confidentiality of the participants. The gender of the nurses was not correlated to how they responded and results were reported in the combined form to ensure that no names could be identified.

## **3.Results**

In this section, we provide the results of the study, which attempted to determine obstacles and enablers in the adoption of the technique of the Cognitive Adaptation Training (CAT) in long-term inpatient institutions of persons with a Diagnosis of a severe mental illness (SMI). The collection of the data was based on both structured interviews with the nursing staff and the adoption of the Measurement Instrument for Determinants of Innovations (MIDI) and other specific questions, related to CAT. The findings are summarized in terms of important sub topics, where the great barriers and enablers found in the level of interventions, the level of providers and the level of organization are all outlined.

### **3.1 Intervention level Barriers and Facilitators**

Intervention level looks into aspects that are directly connected to the CAT protocol itself, including its clarity, complexity and relevance to service users. In this research, most of the nurses stated that procedural clarity of CAT played significant role as facilitator. 80% of the nurses asserted that the intervention was transparent and organized, and this enabled them to work systematically with the service users. This constituted a significant discovery, because studies of implementation of new interventions have always revealed that the perceived clarity and ease of perception may have a substantial impact on the predisposition of healthcare professionals to embrace new practice (Damschroder et al., 2009; Greenhalgh et al., 2004).

Though, they did not find considerable problems at the level of intervention implying that the CAT protocol was viewed as something simple and easy to implement in the current nursing practices. Nurses also indicated that the actions to be undertaken to implement CAT were understandable and could be successfully implemented and that was also a factor that made it accepted in clinical practice(8). This complies with the fact that studies have proved that interventions which are viewed as complicated or need change of workflow significantly will not be easily embraced (Gustafson et al., 2003; Damschroder et al., 2009).

### **3.2 The Provider Level Barriers and Facilitators**

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Among the factors, it was noted at the provider level based on knowledge, motivation and skills of nursing personnel, that a number of issues arose that were facilitators and/or barriers of implementing CAT.

### **3.2.1 Facilitators: Motivation and Knowledge**

Many nurses said they felt inspired to apply CAT in their practice. 83 percent of nurses included motivation among the major facilitators, which shows that they felt excited about the possible gains of CAT to their service users. The motivation was also stimulated by the fact that the nurses had professional duties to enhance the independence of the service users. 89 percent of the nurses indicated that CAT assisted them to perceive the issues of the service users so that they could manage to divide the large demands in small manageable steps. This professional duty was attributed as one of the reasons that led to the commitment of the nurses to the application of CAT, hence concerns the significance of job responsibility in application of evidence-based intervention.

In addition, another possible facilitator was the assistance of co-workers (83%) and supervisors (84%). According to the nurses, the applied social support was a measure that mattered to them to maintain their willingness to apply CAT. It goes hand in hand with the studies which focus on the necessity of social support as the prerequisite of successful adoption of new practices (Aarons et al., 2012; Fishbein et al., 2003).

Secondly, another important facilitator was self-efficacy which is the confidence of the nurses that they can undertake CAT interventions. There was an overwhelming majority of nurses (91%) who occupied confidence about their capability of designing CAT interventions, and 96 percent of them expressed confidence of implementing effectively. Such high self-efficacy implies that nurses were confident they possessed the required skills and knowledge to effectively implement CAT.

### **3.2.2 Barriers: Personal disadvantage and Knowledge Gaps**

In spite of the great motivation and confidence, a number of provider barriers have been determined. The largest obstacle concerned the personal disadvantages whereby 26 percent of the nurses indicated negative attitudes on CAT as it posed administrative burdens. Other nurses discovered that the effect measures on the research outcome related to the RCT were awkward and killed their interest in the intervention(9). It made such administrative duties be regarded as extra work, and this discouraged some nurses to commit themselves into CAT. This result is in line with results that have indicated that a high administrative burden has the potential of compromising the interest of staff to use new interventions (Clark, 2008).

The second obstacle was the non-existence of declarative and procedural knowledge of CAT. More than 54 percent of the nurses given the opportunity to list only one or two elements of the CAT intervention, generally mentioning the use of environmental aids and objective of enhancing the daily functions. In comparison, few nurses could refer to more sophisticated features of the intervention, e.g. compensation of the cognitive deficits or application of a type of behavioral type of a service user in the design of interventions. The existence of such a knowledge gap indicates the necessity of higher and more detailed and comprehensive kind of training that should be developed to make sure that all nurses participating in the implantation of CAT realize all its elements and the reasoning behind the process.

## **3.3 An Organizational Barrier and Facilitator**

At the organizational level, the aspects of the staff capacity, resources, and the institutional support contributed to crucial role during the implementation of CAT.

### **3.3.1 Facilitators: Organizational Resources and Support**

According to 80 percent of nurses, one of the facilitators was the available staff capacity. The majority of nurses indicated that their teams were adequately staffed and able to accommodate the introduction of CAT, which would hardly put a toll on other resources as well as burn out among staff. This is essential because insufficient staffing was discovered to be one of the most severe obstacles to successful introduction of novel interventions in healthcare facilities (Rycroft-Malone et al., 2004).

Selection of a formal coordinator to lead the implementation process of CAT was also observed to be a key facilitator with 87 percent of the nurses indicating that the presence of the coordinator made it easier in that the process could be guided and that the intervention could be applied together and effectively throughout the team. This result encourages the significance of leadership and committed roles in the process of implementation of new practices in terms of the healthcare environment (Damschroder et al., 2009).

Moreover, 89percent of the nurses agreed that they had easy access to relevant information as depicted as a facilitator. This facilitated them to use the intervention and remain updated on the best practice in using the intervention.

### **3.3.2 Barriers: Instability in the Organization and Lacking Formal Ratification**

Conversely, a number of organizational barriers have been determined. The fact that CAT was not legal in the organization was a significant problem: 26 percent of nurses claimed this to be an obstacle; they mentioned that without any official documentation, including work plans or policy documents, the given intervention appeared to be less anchored in the organization and unpredictable. Nurses were not willing to take CAT as an organizational priority unless it was distinctly supported by the top management.

Organizational instability in the healthcare organization was another major obstacle and 87 percent of nurses have noted that it was one of the biggest problems, with most of them saying that implementation went haywire due to changes in the management structure or treatment procedures. It was an unstable environment that caused shocks and frustrations among the nursing staff since they could not adjust CAT to new organizational priorities. The instability of the constant leadership and providing the support processes caused difficulties to the nurses to stay focused on the intervention.

Lastly, another obstacle was regarded as the absence of performance feedback with 37 percent of the nurses stating that they were not receiving enough feedback in relation to the CAT implementation progress. The feedback is a necessary step towards the implementation of the intervention, which will tell the administrators that the intervention is being put in place or not, and deal with any hitches that come along the way. This result highlights the requirement of continuous assessment and monitoring in order to maintain evidence-based practices implementation.

### **3.4 Relationship between the Capability, Opportunity, Motivation, and Appraisal**

The findings on the correlations between the capability, opportunity, motivation, and appraisal indicated significant relationships as contained in the model of COM-B. There was a moderate positive correlation between capability and motivation ( $r = 0.469$ ) and opportunity ( $r = 0.325$ ), and these findings pointed to the fact that more capable nurses were also more motivated and had greater opportunities to apply CAT. Moreover, the appraisal was closely associated with motivation ( $r = 0.738$ ), as CAT attitudes correlated positively with motivation to use it in the daily practice among the nurses.

These results identify the strong relationship between the factors that underlie CAT implementation and show the necessity to use various levels of influence, which are characterized as individual, organizational, and systemic, in order to provide implementation.

## **4. Discussion**

The results of the given research present an in-depth analysis of the obstacles and the enablers of the implementation of Cognitive Adaptation Training (CAT) in long-term inpatient institutes of people having a diagnosis of severe mental disorders (SMI). The findings will be useful in learning the intricacies of implementing evidence based practices into daily care provided by clinical staff, and more so in regard to psychiatric rehabilitation. Main factors that affect implementation of CAT were revealed in three levels which included the intervention level, the provider level, and the organizational level. These considerations offer credible insights into the issues experienced by healthcare providers in the efforts to implement the new interventions and the efforts they can harness to make the successful implementation of new interventions in clinical practice.

### **4.1 Intervention-Level Insights**

At the intervening level, the study established that procedural clarity constituted one of the significant facilitators of CAT implementation. The CAT intervention was clearly structured which enabled nursing staff to adopt it in their daily activities without much complication. This is in agreement with what is in the literature on the significance of simplicity and clarity in the design of interventions (Damschroder et al., 2009). The absence of considerable hindrances on the level of interventions indicates that the adequate perception of the CAT practicality by the nursing personnel may serve as a positive feature toward its universal application in inpatient mental institutions. Nevertheless, even though the intervention protocol was quite clear, nurses faced the difficulties connected with the fact that they did not have the detailed information connected with the theoretical background of CAT, its comprehensive scope of applications and used in the practice. It means that there is the lack of training and education, which should be conveyed in order to make sure that the intervention will be completely comprehended and applied in its full fidelity. The issue, therefore, requires comprehensive, continual education of the nurses so that they are able to make use of all components of the CAT protocol and assist the service users to recover.

### **4.2 Provider-Level Insights**

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On the provider level, the results showed that the nurses were highly motivated to use CAT which was informed by the belief in the ability of CAT to enhance the independence of service users and their quality of life. This is in line with the COM-B model that assumes that motivation is a major cause of behavior change (Michie et al., 2011). Nurses professional feeling that they were obliged to help service users was also noted as one of the facilitators which enforced the notion that the feeling of being motivated is closely related to the feeling that there was a recognised obligation to do this part of the job. It is a key element in the change of any intervention because enthusiastic healthcare providers will be expected to further utilize the new intervention and resist difficulties easier (Aarons et al., 2012). Further, the provision of assistance by co-workers and supervisors had been an additional significant facilitator signifying the relevance of a social support network in the development of the adoption of new practices. This fact highlights the importance of the establishment of the positive and cooperative working atmosphere where team members should feel motivated and assisted in their attempts to apply the evidence-based practices.

But relevant barriers of the provider level were also determined by the study, especially that nurses were not that knowledgeable regarding CAT. Although registered nurses developed certain desire to utilize CAT, over half of them were unable to remember the main aspects of the intervention, including using compensatory strategies or learning the behavioral type of service users. This knowledge deficiency indicates that the fact that it had been initially trained was enough to handle it but not enough to give the wholesome understanding required to make implementation constant and effective. Another obstacle was defined as the administrative cost of the RCT, which required the field to complete many more tasks on top of the already heavy workload. This observation shows that research fatigue can negatively affect the application of evidence-based practices because they are likely to find research-based undertakings as time-wasting and not related to their practice (Clark, 2008). The next challenges that will help overcome them in these areas is vital the creation of training that will not just teach the theoretical but also make sure that the nurses will be able to take the intervention and implement it flawlessly into their every-day practice with a continuous intercession and supervision during the implementation process.

### **4.3 Organizational-Level Insights**

There were a number of barriers identified at the organizational level thus have contributed a lot to the failure to implement CAT successfully. One of the greatest obstacles identified was the absence of official ratification of CAT in the organization. Failure to have an intervention formally supported by a management or as part of a formal policy may result in ambiguity and fewer commitments towards the nursing staff. In the absence of explicit institutional backing, the nurses might wonder whether it is worth their time and efforts to engage in the implementation of the intervention, and thus, they might be even less willing to spend enough time and efforts to make the chosen intervention successful (Mancini et al., 2009). In addition, organizational instability such as shift of management and treatment policies was mentioned by various nurses as a threat to the continuity of CAT use. These observations mean that organizational commitment is most important to lasting success of any new intervention as any change of leadership rules or priorities can always disrupt the work of the staff and derail sustainability of the intervention.

But on the one hand, such a concept like organizational support was also found as a facilitator. According to the clinical experience of the nurses, adequate capacity of the staff and the presence of a designated coordinator that would look after the process of implementing CAT contributed to the assurance that the intervention was actively and persistently implemented. The organizational support in the form of resources, training, and leadership can establish a situation when the staff feels empowered and self-confident about their possibilities to realize the intervention. This was in tandem with findings that effective adoption of evidence-based practices in any healthcare facility heavily relies on excellent leadership and communicating (Fixsen et al., 2005; Rycroft-Malone et al., 2004).

## **5. Conclusion and Future work**

The paper is helpful with regard to understanding the dynamics of the various aspects related to the disability around the implementation of Cognitive Adaptation Training (CAT) in long-term inpatient psychiatric units of patients with severe mental illness (SMI). It can be seen in the findings that the biggest problems to implementation were the organizational barriers, including the absence of formal approval and instability of the organization. But a major provider-level factor, namely motivation, self-efficacy, and social support were proven to be facilitators. In the intervention level, the present structure of procedure accepted by CAT was singled out as a major

methodology facilitator, and the respective knowledge gaps on the theoretical aspects of intervention were addressed as a hindering factor.

In order to guarantee a successful process of implementation of CAT and other evidence-based interventions into daily psychiatric practice, healthcare organizations should consider working on these obstacles at several levels. The nature of training programs should be long-term and thorough, in order to make sure that the nursing personnel will not only gain knowledge about the principles underlying intervention, but will also be supplied with the set of skills that can support successful implementation of the form of intervention. Additionally, the support and commitment of an organization and its management to new interventions overcome the structural barrier and make it the main priority and sustainable in the long run.

In future studies, it is recommended to examine how CAT may influence the outcomes of service users over the years and how various implementation strategies overcome the listed barriers. Also, multi-stakeholder collaboration, such as contributions of service users, managers, as well as other medical practitioners, will be necessary in developing a more holistic approach to the practice of implementing evidence-based practice in mental health care. In the final analysis, there is a need to have collaborative and supported intervention through all level of care delivery to make sure that initiatives such as CAT are one that will be adopted and will have a positive outcome when it come to the problems of individuals with severe mental illnesses.

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### **Conflicts of interest**

The authors have no conflicts of interest to declare

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