ORIGINAL ARTICLE

Principles and Strategies for Developing Effective Psychosocial Treatments for Persons with Intellectual Disabilities with Co-occurring Severe Mental Illness: Clinical Case Examples Based Evidence

Suela Ndoja[1,2], Kledi Bala (Lame)[3]

[1]Clinical Psychologist, Italian-Albanian Association "Progetto Speranza", Shkodra, Albania, [2]Department of Psychology and Social Work, Faculty of Educational Sciences, University of Shkodra "Luigj Gurakuqi", Shkoder, Albania, [3]Psychiatrist, Community Centre of Mental Health, Shkoder, Albania

ABSTRACT

Introduction: Despite advances in antipsychotic medication for severe mental illnesses including with intellectual disabilities for that have alleviated side effect burden, it has become clear that medications alone are not sufficient for recovery and adaptive adjustment. Effective psychosocial treatments that enable persons with severe mental illnesses to cope with the disabling aspects of their mental illness and achieve personal goals are a necessary complement. **Aim:** The aim of this paper is to present the importance of principles and strategies for developing psychosocial treatments for people with intellectual disabilities with co-occurring severe mental illnesses. **Methodology:** The methodology is based on a qualitative analysis of psychosocial treatments that are reviewed and discussed in terms of how they address key components of functional recovery such as symptom stability, independent living, work functioning, and social functioning of two clinical case examples based evidence followed by a 4-year period. **Conclusion:** Psychosocial treatments provide a range of promising approaches to helping people with disabilities with co-occurring severe mental illnesses achieve better outcomes far beyond symptom stabilization. By following professional instincts, respecting basic principles along the psychosocial treatment and by addressing to the essential contribution of pharmacological treatment enables persons with intellectual disabilities with co-occurring severe mental illnesses to a more fully participation in daily life. **Suggestions:** There given some recommendations that can serve to clinical psychologists, mental health specialists, and policy makers to produce effective intervention in general clinical cases.

Key words: Principles and strategies, psychosocial treatments, persons with disabilities with co-occurring severe mental Illness

INTRODUCTION

The relationship between intellectual disabilities (ID) and mental health problems has been the subject matter of scientific and clinical interest during the past two decades.[1-8]

Many neurodevelopmental, psychiatric, and medical disorders also co-occur with intellectual disability, especially communication disorders, learning disabilities, cerebral palsy, epilepsy, and various genetically transmitted conditions[9] estimate of the rates of psychiatric coexisting conditions vary. For many years, there was an underestimation of the

Address for correspondence:
Suela Ndoja, Clinical Psychologist, Italian-Albanian Association "Progetto Speranza", Shkoder, Albania.
E-mail: sundoprospe@gmail.com

increased risk for the development of comorbid conditions ("diagnostic overshadowing"). As researches are conducted, it became clear that the risk for comorbid conditions is greater than previously believed. For example, Rutter *et al*. reported rates of 30–42% of psychopathology in children with "mental retardation" compared with 6–7% in children without the disability.[10] Gillberg *et al*. reported that 57% of subjects with mild and severe "mental retardation" met diagnostic criteria for affective, anxiety, conduct, schizophrenia, and somatoform disorders, and attention deficit hyperactivity disorder (ADHD).[11] Most studies indicate a four- to five-fold increase in mental health problems among individuals with ID. In general, at least 25% of persons with ID may have significant psychiatric problems, with the population experiencing, in particular, significantly increased rates of schizophrenia, depression, and ADHD.[12,13]

Hence, all people with ID with severe mental illness demonstrate functional impairment in daily living and participation in family, school, and community activities. It is traditionally used antipsychotic medication to alter the brain chemistry to reduce psychotic symptoms such as hallucinations, delusions, and disordered thinking.[14] They are also used as a help to prevent those symptoms from returning. However, despite advances in antipsychotic medication for severe mental illnesses including with disabilities for that have alleviated side effect burden, it has become clear that medications alone are not sufficient for recovery and adaptive adjustment.[15]

A comprehensive review by Hatton[16] identifies a small literature relating to psychosocial intervention with people with learning disabilities, including those with psychosis and those in secure settings. Effective psychosocial treatments that enable persons with severe mental illnesses to cope with the disabling aspects of their illness and achieve personal goals are a necessary complement. Psychosocial interventions have been advocated as a complement or alternative to behavioral and pharmacological models of intervention.

There is growing evidence to suggest that psychological treatments can offer an adjunct or even an alternative to traditional medical treatments for a patient with schizophrenia and other serious mental illnesses.[17] The broad aims of psychosocial approaches work at increasing social functioning, decreasing distress, and reducing hospital admission rates through the provision of evidence-based psychosocial interventions.[18]

However, how can these interventions be done in an effective manner? The purpose of this paper is to present the importance of principles and strategies for developing psychosocial treatments for people with ID with co-occurring severe mental illness.

METHOD

The persons of interest in this study were the one who met the following criteria:

1. Their primary diagnosis must be with intellectual disability, and having a co-occurring mental illness
2. A history of severe mental illness (e.g., either schizophrenia, severe depression, or psychosis)
3. They must be 18 years of age or older.

This resulted in a follow-up study for a period of 4 years conducted between years 2013 and 2017. The approval was taken from the Ethics Committee of team group. Participants were one male and one female. The primary diagnoses were with intellectual disability (mental retardation). Participants were assured confidentiality. While the study sample cannot be considered representative of the original population of interest, generalizability was not a primary goal – the major purpose of this study was to determine whether specific principles and strategies could work in an accessible context to develop effective psychosocial interventions.

Table 1 summarizes the characteristics of the participants.

Table 1: Participant characteristics (*N*=2)

Characteristics	*N*
Demographic variables	
Gender	
Male	1
Female	1
Age	
Male	18
Female	29
Marital status	
Single	2
Married	0
Separated	0
Divorced	0
Education	
Less than basic education	2
Less than high school	0
Living arrangements	
Living in home family with caregivers	2
Independent living	0
Clinical variables	
Diagnosis	
Moderate mental retardation	1
Severe mental retardation with conduct disorder and short-term psychosis	1

Measure

Sources of the data for this paper derive from a qualitative analysis of effects of psychosocial treatments following a Systematic Observation Procedure based on individual plan of care. More precisely: Observations of a person's daily routine, unstructured interviews with the participant themselves (and with people who live with them), diaries, personal notes, and official documents (e.g. case notes, clinical notes, and appraisal reports).

Moreover, the data are from two original case studies with characteristics of Process-oriented to psychosocial treatments that are reviewed and discussed in terms of how they address key components of functional recovery such as symptom stability, independent living, work functioning, and social functioning.

Follow-up procedures were implemented after each Individual Plan of care to explore the unique aspects of each person with disabilities' psychosocial intervention experience. They were directed toward the strengths of the persons, their past and present successes, and their current and future challenges. The Systematic Observation Procedure was developed based on the literature of medical and social sciences and professional standards to evaluate the course of co-occurring mental illness and the effects of psychosocial interventions. The observations are well recorded by keeping notes down immediately after the demonstration of any given signs or symptoms.

Clinical case example I

E. H, is 33 years-old, single, employed young woman living in a home family. She had a diagnosis of moderate mental retardation. At age 29 she began to exhibit symptoms of cognitive deterioration. Symptoms included general anxiety, and depression. Because of increased frequency and intensity of symptoms, the clinical psychologist was concerned that she would be hospitalized, something everyone wanted to avoid if possible. She was unemployed. *E's* symptoms were partially managed by Sertalin and Xanax. The first step of the medical consultation with psychiatrist identified influences that instigated the symptoms. It was determined that *E's* living was different from the one she wanted. Living in a home family with other girls with disabilities represented a physical – environmental influencing event that contributed to *E's* symptoms of anxiety, and depression. A psychosocial – environmental influencing event was detected. Another psychosocial – environmental influence, her inability to discuss her vulnerabilities and concerns with her caregivers, affected all of *E*'s symptoms even the tentative to suicide. The next step in the medical consultation was to identify stimulus conditions that would trigger *E's* symptoms. It was found that the most recent exacerbation followed the need to find her family who abandoned her. Her fears were worsened by performance of essential daily activities that required her to move about in the community (such as going out or going to work). Another important trigger was sleep deprivation, which seemed to worsen her negative thinking. Skills assessment determined that she lacked insight into the automatic thoughts that escalated her anxiety and depression. *E* also demonstrated a restricted repertoire of problem-solving skills and was reluctant to talk to others about her problems and fears. In sum, it appeared that the psychiatric symptoms were controlled by a sequence of environmental and personal instigating influences that began with an overreaction to herself and to others, which led to anxiety and fear. These emotions triggered depression and sleep disturbance, which contributed to her more negative thoughts, no longer effectively controlled by medication. In order to monitor treatment progress, *E* assessed herself daily on brief measures of anxiety, hopelessness, sleep, and depression.

Clinical case example II

F.H. is 22 years-old single, unemployed, living in a home family. He had a diagnosis of moderate mental retardation. At age 18 he began to exhibit symptoms of cognitive deterioration. Symptoms included fear, a pronounced anxiety, an uncertain fear, a mood decreased, and social disorientation aroused. There were also shown acute symptoms. Because of increased frequency and intensity of symptoms, the stability of other habitants of home family was threatening. Functional deficits and symptoms required special attention, including, as delusions, dysphoric mood, verbal and physical violence, self-injury, property destruction, and extreme uncooperativeness. He had no pharmacological treatment. The first step of the psycho clinical consultation identified influences that instigated the symptoms. It was determined that *F's* living in a home family with other boys with disabilities represented a physical – environmental influencing event that contributed to *F's* symptoms of fear, anxiety, and depression. A psychosocial – environmental influencing event was detected. Another psychosocial – environmental influence, his inability to make his relatives accept living with them affected all of *F*'s symptoms even the tentative to make continuous dissociative fugue. The next step in the medical consultation was to identify stimulus conditions that would trigger *F's* symptoms. It was found that the most recent exacerbation followed the need to make his relatives maintain one's given word. (They had promised to him after being 18 years old, they will join together) his fears were worsened by thought of spending his entire life in a home family. Another important trigger was the powerful intrapersonal conflict, negative internal dialogue in relation to how others perceived him, social isolation, sleepy situation, and immediate awakening which seemed to worsen his negative thinking. Risk assessment determined that he appeared to lack insight into personal circumstances, needs, etc., that escalated him to a lethargic behavior. *F* also demonstrated deficit skill in problem-solving and being assiduous to ask to others (known and unknown people) about his problem with relatives. In sum, it appeared that the psychiatric symptoms were controlled by a sequence of

environmental and personal instigating influences that began with an overreaction to others and environment. Negative emotions contributed to his more negative thoughts, no longer effectively controlled by medication.

ANALITICAL RESULTS AND DISCUSSION

Clinical case example I

The following interventions were followed:

1. *E. H* began planning to adapt living in a home family with other girls with disabilities. Within 3.6 months, with guidance and support, *E* found herself by avoiding staying and fighting with others
2. Sertraline was increased during the phase of adaption. On the basis of objective, daily self-assessments that *E* provided, the psychiatrist was able to regulate dosage
3. *E* began a therapeutic contracting program[19] to overcome resistance, denial, and a motivation while enhancing her self-efficacy. The daily fear and sleep indexes were used to evaluate her progress. This initiated new self-concepts of worth and value and nurtured the belief that change is also possible within herself. Her hopelessness and depression scores dropped significantly. She began working in a factory
4. Cognitive therapy was initiated to deal with her automatic thoughts, fears, and depression.

This combination of interventions, directed by clinical diagnostic hypotheses and generated through consultation, prevented the need for *E* to be hospitalized. Furthermore, knowing those influences that instigated her symptoms allowed *E*, caregivers staff and professional staff to design interventions that reduced her skill deficits and to adjust interventions as her conditions changed (based on daily assessments); the knowledge also empowered *E* and enabled her to take considerable control of her life.

Clinical case example II

In order to monitor treatment progress, *F* situation was as following:

1. *F. H* began planning to accept being part of a large community with other persons with disabilities. Within 1 year, with guidance and support, *F* found himself by contributing for others and environment in home family
2. Olanzapine and clozapine were evaluated to be treated with. On the basis of objective, daily assessments that were provided, the psychiatrist was able to regulate dosage. Including side effects and daily dosage of the antipsychotic, depressive and negative symptoms, duration of treatment, and subjective tolerability
3. *F* began cognitive – behavioral social skills training. Benton and Schroeder[20] reported the results of a meta-analysis of 27 well-designed studies evaluating the effectiveness of social skills training for persons with schizophrenia. In their review, these authors only included studies that used controlled designs, clear social skills training methods, and objective outcome measures. In our case, *F* began to show an increased level of interpersonal skills as making "small talk" in social settings, coping skills, and behavioral activation
4. Cognitive therapy was initiated to deal with his automatic thoughts, fears, and depression, and tentative making fugue
5. Social cognition training groups was used to provide him a host of a new perspective on his situation and help him see solutions in a new light (living together in a home family).

This combination of interventions, directed by clinical diagnostic hypotheses and generated through consultation, prevented the need for *F* to be hospitalized and for 3 years he did not make anymore any fugue.

During phases of psychosocial intervention, it is evident that we were only beginning to develop the kind of in-depth understanding of negative symptoms that are requisite to formulating new, effective, interventions. As we noted above, in the given clinical cases, negative symptoms tend not to be responsive to medication. Although studies show that atypical antipsychotics may have beneficial effects,[21-23] pharmacologic treatment has only marginal value when negative symptoms predominate.[24,25] Therefore, instinctively, one professional tries to find the proper strategies, develop them and followed those that are capable of diminishing the deleterious effects of negative symptoms, particularly the burden and disruption that occurs in the early course of psychosis.[26]

Through our clinical work to develop effective psychosocial interventions as a complement of pharmacological therapy, we devoted to articulating five principles that have been useful in developing effective interventions.

Principle #1: Use negative symptoms comorbidities and maladaptive schemas) as a point of reference and target what these symptoms disrupt and be able to respond appropriately

Positive and negative symptoms play an important role in formulating medical and psychosocial interventions[27] and shape the long-term course and outcome of the disorder. Positive symptoms in themselves are legitimate targets of intervention.[26] For instance, how would we phrase a treatment goal for the clinical Cases I and II? More important than targeting a reduction in negative symptoms *per se* is identifying what these symptoms disrupt and be able to respond appropriately.

Strategies

Once the practical consequences of negative symptoms or maladaptive schemas are known as we did in the given clinical cases, we can formulate interventions that are designed to

minimize the disruption and promote activities of everyday life that have become dysfunctional. Since cognitive function, quality of life outcomes and social functioning diminish even prior the first episode of psychosis,[28] it is important to target any disruption precipitated by negative symptoms in the earliest stages. Symptoms provide a point of reference; they assist providers of mental health in identifying early signs and sources of deterioration (King and Shepherd, 1994). Active supportive psychotherapy with strong emotional support is essential in the early stages of treatment for negative symptoms, though it can be difficult to provide this in a setting where may be followed by a range of other emerging factors.

Principle #2: Promote *dignity* and *respect* by maintaining confidentiality and integrity and valuing the individual's severe mental illness experience by ensuring understanding, equality and legal rights

Once we as providers of mental have been familiar with the factors that disrupted the mental health of persons with intellectual disabilities and identified their psychological wellbeing, it was taken care to support the clients analyzed the factors influencing the mental wellbeing and the things they could do to improve it by using a practical language by promoting dignity and respect irrespective of their disability, mental illness, or condition.[29] This is in terms which are non-judgmental and guided by respect for individual choice and control giving a positive impact on the persons who needed care and support, including their self-esteem, feelings of self-worth, and overall mental health and wellbeing.

Strategies include showing a respect and unconditional positive regard that can be communicated through attitude as well as activities or actions. In mental health setting, the attitude which includes verbal and non-verbal communication and feelings play a key role and guide our actions toward the patient.[30] Accepting and respecting the pelvic inflammatory disease (PID) without regard to their behavior or flaws means not telling to him "*You have been good till now, now you became bad."* This means that they should be regarded as a human being, as a unique individual and a person of worth and accepted as who they are and as they are despite their behavior or conduct according Mental Capacity Act, 2005 by ensuring equality and legal rights to receive the proper psychological or medical help.[29]

Principle #3: Enable and re-establish social inclusion, maintain positive relationships, educational and other important social ties.

Once we identify that the cognitive function is deteriorated, a PID's ties to others and to normative educational, vocational, social, and recreational activities are harder to restore. A substantial proportion of the effort that is involved in rehabilitating the given clinical cases later in the course of illness focused on restoring social relationships and encouraging participation in meaningful activities. From the outset, efforts can be directed at enabling, enhancing, re-establishing the PID's investments in these important areas of function, so that crucial ties are not be broken.

Strategies for maintaining ties and involvement in meaningful activities include: Sensibilization and education of society and other members of the person with intellectual disability's natural support system in order to destigmatize persons with intellectual disabilities with comorbid mental illness and engender continued acceptance despite the severity of disorganizing effects of the illness. The sequence and phase-oriented delivery of programs and psychosocial interventions that are undertaken during the early stages of psychosis improve clinical outcomes, even for persons with low premorbid functioning.[31] Establishment of *in vivo* supports that enable a PID suffering from mental illness to remain in mainstream educational and vocational settings, to learn skills for independent living, educational and vocational success, and social & recreational gratification within a social context.

Principle #4: Enable, affirm capacity and confidence-building of persons with ID with co-occurring severe mental illness to be responsible for their own functional recovery.

It is important to underline that we could understand that one of the more frustrating aspects of psychosocial interventions for PID with severe mental illness is that hardly one can do the work of rehabilitation for the person. Yet, the concept persists that treatment or intervention ought to "make people better." Engaging PID as active agents who are primarily responsible for their recovery may be the most difficult task of all.[32] Yet, once the task is accomplished, dividends begin to build confidence during their functional recovery journey.

Strategies for offering opportunities, encouragement, and support include:

- Begin by reviewing the PID's major areas of need, interest, activities, and aspiration recognizing that interests, talents, aspirations, and gifts considering that they are idiosyncratic in every person
- Build on existing strengths and remaining areas of confidence so that these may be extended to other parts of the PID's life
- Persist in viewing the PID as the agent of change. Provide opportunities for the person to contribute something of value rather than simply being a recipient of the others' beneficence.

Principle #5: Do not attempt to eliminate negative feelings from daily living

In the course of the recovery; it was obvious that one PID needs to be guided to learn how to adjust one's expectations and environmental demands to match the level of comfort, beyond the stabilization of negative symptoms. As with

normal development, exhibiting negative feelings like anxiety can be a healthy means of an ongoing progress. Efforts to encourage PID to maintain ties to others and continue their involvement in activities should be made with consideration to the painful and frightening aspects of psychosis. Intense feelings of social loss, alienation, anger, and rejection can manifest even in the midst of a joyful moments. Acknowledging the profoundly negative feelings that accompany joyful moments are a bidirectional way that at times can become overwhelming contributing to the desire to withdraw in the face of overwhelming symptoms and being unable to control them, or on recalling actions that have harmed others.

Strategies for enabling the PID to tolerate a healthy amount of negative feelings include:

- Providing emotional support in the face of disturbing subjective experiences and stigma[26]
- Encouraging, recognizing and sharing their problems, the limitations they face, and the changes that occur because of their comorbid state. Remember: some problems may be insurmountable at present, but resolvable over time
- Assisting in distinguishing an acknowledgement of psychiatric symptoms from acquiescence to the comorbid state. Doing this way facilitates effective treatment and problem solving
- Finally, reduce the risk of transition to psychosis from prodromal or "ultra-high risk."[26] It is important to realize that positive changes and events also can be sources of stress so that PID can be prepared for the increased demands that often come with gains in functioning.[33]

CONCLUSION AND SUGGESTIONS

The purpose of this paper was to present the importance of principles and strategies for developing psychosocial treatments for people with ID with co-occurring severe mental illnesses.

Findings show us that by exploring the nature of negative symptoms in greater depth and detail can assist us in overcoming the obstacles that are preventing these goals from being achieved. The most urgent task is to develop innovative psychosocial interventions that are capable of addressing these symptoms early in the course of co-occurring state of severe mental illness. We have yet to implement consistently the kinds of early interventions that effectively assist PID in maintaining their involvements in meaningful relationships and activities.[34]

The results from the two given clinical cases show that by following the given principles and strategies of psychosocial interventions, the functional recovery was made possible. Regarding symptom stability, they maintained their symptoms throughout follow-up, although some symptoms were more stable than others. For the symptoms that changed, changes occurred within rather than between symptom dimensions; qualitative shifts from one dimension to another were rare. The history of any previous negative symptom or maladaptive schema was an especially strong predictor of the presence of particular co-occurring symptoms. Although the participants had received pharmacological and behavioral treatment during the follow-up period, changes within symptom dimensions could not be explained by overall clinical improvement over time. Moreover, the independent living was already as a future trigger for them; meanwhile, work functioning was improved moderately. Despite any partial relapse, the participants continued to show improved positive symptoms in terms of social functioning that was mostly dependent of nature of their index episode of mental illness.

Psychosocial treatments based principles and strategies provide a range of promising approaches to helping people with disabilities with co-occurring severe mental illness achieve better outcomes far beyond symptom stabilization. Clearly, adopting a "wait-and-see" approach only leads to persons with intellectual disability with occurring severe mental illness falling behind their developmental trajectories and ensuring their ultimate disability.

Therefore, principles provide a framework for learning and development, therefore forming the foundation for good practice across social care settings.[29] By following instincts, respecting basic principles and proper strategies along the psychosocial treatment and by addressing to the essential contribution of pharmacological treatment enables persons with disabilities with co-occurring severe mental illnesses to more fully participation in daily life.

It is evident that the interpretations in this paper articulate some elements of what may eventually comprise an alternative but many fundamental questions remain unanswered. The timing, content and depth of the currently available psychosocial interventions have not been explored. Some of the logic and rigor of research designs from psychopharmacology need to be adapted and applied in psychosocial treatment research in early mental illness symptoms/early psychosis.

Hence, the evidence shown in this study can be generalized to urban psychiatric Institution/home cares that are similar to thresholds, have a similar clientele, and implement similar interventions. However, the suggestions remain open to be discussed widely by clinical psychologists and mental health specialists because it is likely that other principles and psychological strategies are also appropriate for individuals with intellectual disabilities with co-occurring mental illness, and we anticipate further innovations as the needs of this group continue to gain further attention in numerous studies internationally. It would be helpful producing a comprehensive manual incorporating other skills and approaches in the future.

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