A Community-Based Treatment Center for Sex Offenders in Israel: A Treatment Evaluation of the Treatment Completers

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ABSTRACT

Background: The center for treatment of adult sex offenders was the first of its kind in Israel and was established as an experimental project. Our purpose was to explore the center's treatment efficacy.

Methods: There was assessment of clients throughout the course of their treatment and follow up for an average of 4.2 years afterwards. In total, the participants comprised 41 adult male sex offenders who had completed the program. Treatment evaluation was made by examining changes in various target areas related to dynamic risk factors, with a focus on CTTs, including post-treatment recidivism rates. The assessment of treatment progress focused on accepting responsibility, victim awareness and empathy, emotional regulation, self-monitoring, offense supportive attitudes, and intimacy/relationship skills and social competence. Data from the Israel Police on criminal records and recidivism rates were also analyzed.

Results: Results show that most of the clients appeared to benefit from the treatment. They assumed more responsibility and reached a better understanding of the severity of their actions and of their personal dangerousness. Use of defense mechanisms typical of sex offenders was reduced and risk factors were recognized. In addition, based on police records, low recidivism rates were found.

Conclusions: Results raise issues of the viability of existing therapeutic strategies and resource allocation for treating sex offenders defined as low vs. high risk.

INTRODUCTION

Sex offenders are widely perceived as among those most feared by society (1). The public, policymakers and practitioners consistently view sex offenders as a unique group of offenders in need of special management (2, 3). Accordingly, many governments are committed to the establishment of treatment centers, with the aim of reducing future sexual victimization, promoting safer communities, and decreasing the financial costs associated with re-incarceration as a result of repeat offending (4-7).

Although there is much controversy over the effectiveness of sex offender treatment (7, 8), meta-analytic reviews of treatment programs have provided support for the efficacy of evidence-based treatments for reducing sexual recidivism and other violent outcomes (e.g., 9, 10). In a meta-analysis, Schmucker and Lösel (7) (27 studies, N=10,387) showed that the recidivism rate was 10.1% among treated vs. 13.7% among untreated sex offenders. They also noted that only community programs (but not prison programs) significantly reduced sexual offense recidivism. In an updated meta-analysis Ganon and others (11) presented data from a number of meta-analysis studies indicating a rate of recidivism in the range of 13.7%-16.8% among sex offenders who have not undergone treatment, compared to a recidivism rate in the range of 10.1% -12.3% among those who have completed treatment.

Meeting therapeutic goals related to risk factors (e.g., assuming responsibility, increased empathy, and so forth) is of little value if the offender commits another offense. Therefore, it is essential to evaluate changes that have taken place as well as ensure appropriate following up to check actual recidivism rates (e.g., examination of police records). Thus, reliance on only clinical evaluations of

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therapeutic progress or client self-reports is insufficient.

The main purposes of the treatment are to reduce recidivism by helping individuals enhance their awareness, develop a more effective and wider range of coping skills, and improve individual confidence in the ability to manage hazardous situations13 ,12)). A newer theoretical framework informing sex offender treatment programs (14) is known as "the good lives model" (GLM; 15). This model represents a more contemporary approach to offender rehabilitation that focuses on building client strengths rather than solely managing risk or alleviating deficits.

Most structured sex offender programs are based on the model of cognitive-behavioral therapy (CBT) as the core of the treatment for behavior change (for review, see 16, 17). Among the needed behavioral changes for adult male sex offenders, similar core treatment targets (CTTs) were found to effectively reduce the re-offense rate among sex offenders (6, 18). These CTTs fit the criminogenic needs and target them in treatment. The CTTs focus on changes in various target areas relating to dynamic risk factors, such as offense responsibility (3, 18), social skills, social competence and intimacy (6, 19), victim awareness and empathy (6, 20), recognizing cognitive distortions (18, 21), and personal patterns of offending and recognition of the offense cycle (22). Outcome studies indicate that programs that organize their treatment around these identified CTTs have better outcomes than those that do not (for more detail, see 17, 18).

In Israel, treatment is provided in several government settings (for example, the probation services, the authority for rehabilitation of prisoners and in prisons) as well as in several private settings that have received legal authorization (23-25) within the provisions of the Defenses of the Public Against Sexual Offending Act, 2006 (25). Recent years have seen significant developments in the treatment of sex offenders in Israel, partly as a result of the Act. The first Israeli day center for the treatment of adult sex offenders in the community (below, designated "the center") was opened in 2005. The center was established as an experimental project, with the aim of constructing a therapeutic continuity, reducing the risk of sex offenders, and re-integrating them in the community. The center accepts sex offenders aged 18 and older, assessed as demonstrating low to medium risk of reoffending, and who have admitted committing an offense. Candidates are usually referred by the Israeli probation services or by the Israeli authority for rehabilitation of prisoners. Treatment at the center is an alternative to incarceration and/or a probationary term. The treatment program operates five days a week. It includes various components: therapy groups, individual therapy, varied activities aimed at developing and improving life skills, interpersonal communication, collaboration, and recreational practices (26, 27).

As noted, similar to other frameworks around the world, the treatment of sex offenders in Israel is carried out according to the principles of CBT, integrates CTTs, and is based on the three core principles provided by the Risk-Need-Responsivity (RNR) theoretical model (28). The Risk principle relates to matching the level of service to the offender's risk of reoffending, and in this case is suited to low-to-medium risk offenders. The Need principle relates to criminogenic needs and targets them in treatment, and the variables examined in the current study are those that the center's treatment program aims to improve with relation to the psychological, social and emotional functioning of the offender, and with the purpose of reducing chances of recidivism (29).

The treatment program at the center is also adapted to the Responsivity principle, with the purpose of maximizing the offender's ability to learn from a rehabilitative intervention by providing cognitive behavioral treatment and tailoring the intervention to the learning style, motivation, abilities and strengths of the offender. Thus, the content of the center's program is based mostly on cognitive behavioral and social learning methods, with a focus on CTTs (18, 22).

The purpose of the current study was to evaluate treatment provided at the center by examining changes in various target areas related to dynamic risk factors, with a focus on CTTs, including post-treatment recidivism rates. The assessment of treatment progress focused on accepting responsibility, victim awareness and empathy, emotional regulation, self-monitoring, offense supportive attitudes, and intimacy/relationship skills and social competence. As will be seen from the literature review mentioned above, the combination of all these factors facilitates a more holistic picture of the changes that occur throughout the treatment.

Accepting responsibility: A first step in the treatment of sex offenders is to bring them to accept responsibility for their sexually abusive behavior. Treatment interventions rely on offender ability to identify and address offense precursors, which is difficult if there is denial of committing the sexual offense (30-32).

Victim awareness and empathy: Treatment efforts are designed to teach sex offenders the detrimental effects of their assault on their victim/s, how to see a situation from other perspectives, and how to understand and value others (33, 34).

Emotional regulation: This helps sex offenders recognize, monitor, understand, and appropriately manage their emotions. Its measurements include personal patterns of

offending and triggers for committing the offense (18, 35).

Self-monitoring: This refers to individual ability to recognize, understand, and gain insight into risk factors in a way that shows internalization of the therapeutic process. This includes recognition and management of the thoughts, attitudes, feelings, situations, and sexual interest and arousal that were linked to committing the offense, in order to develop a personal relapse prevention program (3, 4, 35).

Offense supportive attitudes: This refers to the use of cognitive distortions and defense mechanisms. Sex offenders typically use these in order to support or justify their sexually abusive behaviors. Cognitive restructuring is used to help them identify and counter these distorted thought processes (34, 36).

Intimacy/relationship skills and social skills competence: Sex offenders often exhibit a variety of deficits in their social skills. These include problems in developing and maintaining satisfying intimate relationships with friends of a similar age and with intimate partners as well as impairment in the areas of social skills (e.g., conflict resolution, conversational skills, etc.) (6, 37).

This study focused on measuring changes in these dynamic factors at four different points in time. In addition, post-treatment recidivism rates were also measured comparing graduates and dropouts from center treatment programs. It should be noted that most previous studies focus on treatment efficacy at two points in time: pre- and post-treatment (e.g., 6). Some only pay attention to the recidivism rate (e.g., 9, 22, 38). Others noted the importance of examining treatment efficacy at several points in time, due to the extensive knowledge of sex offender treatment as a lengthy process characterized by gradual changes (39, 40).

Based on the literature review, the current investigators predicted that participation in treatment would result in pre/post-treatment change in treatment targets. Changes were also expected to be gradual. With regard to the recidivism outcome, the prediction was that individuals who had gone through the full treatment program would reoffend at lower rates than individuals who had dropped out of the program or did not complete it.

METHOD

RESEARCH PARTICIPANTS

The study included all the offenders who had spent time at the center and completed their treatment from the date it was founded in 2005 until 2011. In total, the participants comprised 41 adult male sex offenders who had attended the center for 15.5 months on average (SD=4.9 months, range = 5 to 23 months) (comprising 46% of all sex offenders who began the treatment process at the center; 54% did not complete the process for various reasons; for more details, see Table 9) and had completed the program. All of the sex offenders were referred and/or court-mandated for treatment and had received official convictions for their sexual offenses.

Background characteristics of the participants are presented in Table 1.

In examining the demographic differences between the two groups (nonparaphilic and paraphilic offenders, according to the DSM-IV criteria for paraphilia), no differences were found in age, marital status, duration of stay at the center, and number of victims. Significant differences were found in victim age between the two groups ($t(35)=3.67$, $p<.001$). The average age of the paraphilia group was lower ($M=9.50$, $SD=4.36$ and $M=15.47$, and $SD=5.49$, respectively).

RESEARCH DESIGN AND MEASURES

In the current study, the data gathering for evaluating the therapeutic process was planned in advance, according to the specific study design. The therapeutic process was evaluated during four points in time: 1) beginning of treatment, 2-3) twice during the process of treatment, and 4) end of treatment. A preliminary condition for admission to a treatment center is formal admission of the offense. The first evaluation also included the risk assessment according to the Static-99R (for more detail, see the Measures section). All evaluations are the result of analysis of clinical tests and assessments performed by the treating staff at the center, as a structured clinical interview. The therapists were all professionals (registered social workers or clinical criminologists trained as the Master's level or higher), skilled in working with sex offenders (>5 years of treating

Table 1. *Background characteristics of the participants*

		N	%
Diagnosis	Nonparaphilic	20	48.8
	Paraphilic	21	51.2
Marital status	Single	25	61.0
	Married	10	24.4
	Divorced	5	12.2
	Widowed	1	2.4
Children	Yes	17	41.5
	Range	**M**	**SD**
Age	22-70	37.6	12.8
Treatment duration	5-23 months	15.5	4.9
Number of victims	1-12	2.4	2.3
First victim's age	3-30	12.46	5.72

sex offenders together with significant experience of conducting risk assessment), and who had reached a high level of competence in carrying out clinical interviews. Before assessment sessions with the sex offenders, therapists were provided with the maximum information available on each person, including treatment in the various treatment groups, individual/family therapy, peer group management, meeting the center's terms, knowledge of boundaries, and behavior in the community. The interval between measurements was four months on average (M=4.08, SD=1.49). The duration of each evaluation protocol was 2.5 to 3 hours. After confirming that no identifying details remained the information was transferred to the researchers. All research participants signed an informed consent form that allows use of the data collected. The research design was confirmed by the ethics committee of Israel's adult probation services.

MEASURES

Risk assessment according to the Static-99R (36, 41): The scale includes 10 static risk variables that have demonstrated relationships with sexual recidivism (e.g., age, spousal relationship, criminal history [including type of offense and number of previous convictions], level of familiarity with the victim, and victim sex). The items and the total score (ranging from -3 to 12) were used to place offenders in one of four risk categories: low (-3 to 1), medium-low (2 to 3), medium-high (4 to 5), and high (6).

Assessment of treatment progress: In this study, construction of the tool was based on variables referred to in the literature as meaningful and fundamental in the treatment of sex offenders (see literature review in the introduction). Accordingly, a structured assessment protocol (questionnaire) was developed, including four measurements. The questionnaire was identical for all four measurements. This facilitated comparisons and examination of change throughout the treatment and treatment progress, as well as internalization of the therapeutic messages (a full list of the variables appears in the Results section, Tables 2-7).

Accepting responsibility: Sex offender acceptance of responsibility for their sexually abusive behavior was measured by examining one item rated on a 0-1-2 scale for how truly/accurately each item describes the offender (0 = does not take responsibility at all; 1 = partial; 2 = full responsibility).

Victim awareness and empathy: This was measured by examining five items that relate to the following aspects: (1) Offender ability to empathize with the victim; (2) Self-victimization construct; (3) Attributing reciprocity to perpetration of the act; (4) Victim devaluation; and (5) Victim blaming. Items 1-2 were rated on a 0-1-2 scale for how truly/accurately they describe the offender (0 = does not apply to this offender; 1 = partial; 2 = does apply to this offender). The other three items were Yes/No questions.

Emotional regulation: This refers to recognition, monitoring, understanding, and appropriately managing the offenders' emotions. It was measured by changes through measurements in three dimensions: (1) Personal patterns of offending; (2) Triggers/stressors; and (3) Recognition of the offense cycle. Personal patterns of offending examined three questions: Does the offender recognize his personal pattern of offending (recognition)? Does the offender understand his personal pattern of offending (understanding)? Finally, is there emotional insight regarding his pattern of offending (insight)? Similarly, triggers/stressors of offending relates to three questions: Does the offender recognize his triggers (recognition)? Does he understand these triggers (understanding)? Lastly, is there emotional insight regarding these triggers (insight)? In addition, recognition of the offense cycle was also examined. All the answers were rated on a 0-1-2 scale for how truly/accurately each item describes the offender (0 = does not apply to this offender; 1 = partial; 2 = does apply to this offender).

Self-monitoring: This examined the sex offender's ability to be aware of his risk factors by examining three questions: Does the offender recognize the risk factors that lead him to perpetrate the offense (recognition)? Does the offender understand the risk factors that might lead him to perpetrate the offense (understanding)? Finally, is there emotional insight regarding the risk factors (insight)? All the answers were rated on a 0-1-2 scale for how truly/accurately each item describes the offender (0 = does not apply to this offender; 1 = partial; 2 = does apply to this offender).

Offense supportive attitudes: These attitudes relate to use of cognitive distortions and defense mechanisms. Three items examined *Cognitive distortions* as related to the victim/s, the offense, and the offense severity. All the items were Yes/No questions.

Defense mechanisms related to the use of these mechanisms in general and to the extent to which six types of mechanisms were used: denial, projection, normalization, rationalization, intellectualization and minimization. All the items were Yes/No questions.

Social skills: In order to examine the ability to form social relationships, two Yes/No questions were asked – one on social relationships with the age group and the second on social skills with the opposite sex. The answers to these questions were provided on a dichotomous Yes/No scale.

Social competence: Three levels of social competence

were examined: Behavioral, cognitive, and emotional. Each level was rated on a 0-1-2 scale for how truly/accurately the item describes the offender (0 = does not apply to this offender; 1 = partial; 2 = does apply to this offender).

Recidivism rates: To assess recidivism rates, we analyzed data received from the Israel Police for all the participants who attended the center from the day it opened until the date of the study (2011). Recidivism was defined as a new conviction, but other definitions such as re-arrest, new charges or reincarceration were also used. Follow-up time was four years on average (M=4.2, SD=1.26).

DATA ANALYSIS

As mentioned above, the treatment assessment was based on four measurements. All tables include time differences for the various items measured. Since items were defined dichotomously (yes/no) or ordinally (yes/partial/no), differences were assessed using non-parametric methods. Due to sporadic missing data, the non-parametric Wilcoxon (Z) test for paired differences was used (rather than a global Chi square). Due to the possible inflation of the α level, Bonferroni correction for multiple comparisons was applied. As each variable has three repeated comparisons (time 1 to time 2, time 2 to time 3, time 3 to time 4) the α level was set at $p = .05 / 3 = .01$. Asterisks in the tables mark significant differences ($p < .01^{**}$, $p < .001^{***}$), with the respective Z values being: $2.58 < Z < 3.29$, $3.30 < Z$. As all data are dichotomous or ordinal, and non-parametric statistical methods were used, controlling for the initial risk evaluation (Static-99R) was not possible. For this reason change scores were not calculated as well. Recidivism among graduating patients was 5%, marking it as a variable with no variance.

RESULTS

RISK ASSESSMENT ACCORDING TO THE STATIC-99R (STATIC VARIABLES)

One of the criteria for admission to the center was a moderate-low risk assessment. This resembles other open

Table 2. *Sex offender acceptance of responsibility for their sexually abusive behavior*

Accepting responsibility	Measurement 1 Suitability for the program N=41	Measurement 2 N=37	Measurement 3 N=37	Final measurement Treatment conclusion report N=39	Differences between measurements (1-4)
	N (%)	N (%)	N (%)	N (%)	
No	2 (4.9)	1 (2.7)	1 (2.7)	--	2>1*** 3=2 4=3
Partial	25 (61.0)	8 (21.6)	3 (8.1)	7 (17.9)	
Yes	14 (34.1)	28 (75.7)	33 (89.2)	32 (82.1)	

**p<.01, ***p<.001

Table 3. *Victim awareness and empathy*

	Measurement 1 Suitability for the program N=41	Measurement 2 N=37	Measurement 3 N=37	Final measurement Treatment conclusion report N=39	Differences between measurements (1-4)
	N (%)	N (%)	N (%)	N (%)	
Ability to empathize with the victim					
0. No	24 (58.5)	12 (31.6)	9 (23.7)	5 (13.2)	2>1*** 3=2 4=3
1. Partial	14 (34.1)	20 (52.6)	15 (39.5)	17 (44.7)	
2. Yes	2 (4.9)	6 (15.8)	14 (36.8)	16 (42.1)	
Self-victimization construct					2=1, 4=3 3<2** (3,4<1,2**)
0. No	17 (41.5)	16 (43.2)	24 (66.7)	27 (69.2)	
1. Partial	2 (4.9)	6 (16.3)	5 (13.9)	5 (12.8)	
2. Yes	22 (53.7)	15 (40.5)	7 (19.4)	7 (17.9)	
Attributing reciprocity to perpetration of the act	30 (73.2)	13 (35.1)	3 (8.1)	3 (7.7)	2<1*** 3<2** 4=3
Victim devaluation	13 (31.7)	6 (16.7)	1 (2.7)	0	1=2=3=4
Victim blaming	15 (36.6)	10 (27.8)	2 (5.4)	1 (2.6)	2=1, 3=4 3<2** (3,4<1,2**)

**p<.01, ***p<.001

day centers that treat sex offenders in the community (42). All the participants met this criterion. The mean score of participants on the Static-99R was 2.10 (SD=2.33, range = -3 to 8). Spearman and point-biserial correlations between the initial risk evaluation (Static-99R) and all the research variables as measured at time 1 were non-significant (r = -.35 to r = .28, p > .01).

TREATMENT EVALUATION OF CENTER GRADUATES

In the first stage, we examined differences between items measured at the different points in time (time differences) among each group (paraphilic and nonparaphilic Sexual Disorders). In all four measurements trends of change were similar, with no significant differences in the entire variable we examined, with the exception of social skills (see Table 7). Thus, apart from the latter variable, we examined the differences between items measured at the different points in time (time differences) in the entire sample.

Table 2 presents detailed findings on indices for sex offender acceptance of responsibility for their sexually abusive behavior**.** Table 3 presents detailed findings on victim awareness and empathy.

As can be seen from the tables, as a rule, significant changes occurred in all indices examined, particularly in

Table 4. *Emotional regulation: personal patterns of offending, triggers/stressors, and recognition of the offense cycle*

	Measurement 1 Suitability for the program N=41	Measurement 2 N=37	Measurement 3 N=37	Final measurement Treatment conclusion report N= 39	
	N (%)	N (%)	N (%)	N (%)	
Personal patterns of offending					
Recognition (cognitive level)					
0. No	27 (65.9)	7 (19.4)	2 (5.4)	1 (2.6)	2>1*** 3>2*** 4=3
Partial	12 (29.3)	21 (58.3)	4 (10.8)	4 (10.3)	
Yes	2 (4.9)	8 (22.8)	31 (83.8)	34 (87.2)	
Understanding (cognitive level)					
No	29 (70.7)	9 (25.0)	2 (5.4)	2 (5.1)	2>1*** 3>2*** 4=3
Partial	11 (26.8)	22 (61.1)	7 (18.9)	6 (15.4)	
Yes	1 (2.4)	5 (13.9)	28 (75.7)	31 (79.5)	
Insight (emotional level)					
No	38 (92.7)	16 (44.4)	5 (13.5)	3 (7.7)	2>1*** 3>2*** 4=3
Partial	3 (7.3)	18 (50.0)	13 (35.1)	16 (41.0)	
Yes	--	2 (5.6)	19 (51.4)	20 (51.3)	
Triggers/ stressors					
Recognition (cognitive level)					
No	23 (56.1)	7 (18.9)	1 (2.7)	1 (2.6)	2>1*** 3>2*** 4=3
Partial	16 (39.0)	21 (56.8)	7 (18.9)	4 (10.3)	
Yes	2 (4.9)	9 (24.3)	29 (78.4)	34 (87.2)	
Understanding (cognitive level)					
No	25 (61.0)	9 (24.3)	1 (2.7)	2 (5.1)	2>1*** 3>2*** 4=3
Partial	15 (36.6)	21 (56.8)	9 (24.3)	6 (15.4)	
Yes	1 (2.4)	7 (18.9)	27 (73.0)	31 (79.5)	
Insight (emotional level)					
No	34 (82.9)	14 (37.8)	4 (10.8)	3 (7.7)	2>1*** 3>2*** 4=3
Partial	7 (17.1)	20 (54.1)	14 (37.8)	15 (38.5)	
Yes	--	3 (8.1)	19 (51.4)	21 (53.8)	
Recognition of the offense cycle					
No	25 (61.0)	9 (24.3)	1 (2.7)	1 (2.6)	2>1*** 3>2*** 4=3
Partial	14 (34.1)	21 (56.8)	5 (13.5)	5 (12.8)	
Yes	2 (4.9)	7 (18.9)	31 (83.8)	33 (84.6)	

**p<.01, ***p<.001

the first two measurements. In the third and fourth measurements, a stable trend is evident, showing no change.

Table 4 presents detailed findings with regard to changes in emotional regulation as related to personal patterns of offending, triggers/stressors, and recognition of the offense cycle.

It indicates that, on indices of recognition, understanding and insight of the personal offense pattern and of the trigger, significant changes occurred in all indices examined, particularly in the two first measurements. In the third and fourth measurements, a stable trend is evident, showing no change.

Table 5 presents total scores for therapist assessment of self-monitoring at each stage, recognition, understanding, insight into risk factors and internalization of therapeutic messages. The total scores relate to the client's ability to understand and implement his grasp of avoiding situations involving risk factors that may lead to recurrence of the offense.

The findings show that during the treatment period a significant improvement occurred in the indices examining recognition, understanding and insight into risk factors.

OFFENSE SUPPORTIVE ATTITUDES

Table 6 presents the findings on offense supportive attitudes. It refers to use of cognitive distortions and defense mechanisms.

The table indicates a change throughout the measurements in all variables examined. In general, there was a sharp drop in the pattern of thinking errors throughout the first three measurements, and then the trend remained stable.

Table 7 presents differences between items measuring social skills at different points in time, among each group (paraphilic and nonparaphilic offenders).

Differences were noted between items measuring social skills in the paraphilic group at different points in time. However, the results show a change throughout, particularly during the first two measurements, while subsequently the trend remained stable. In addition, as can be seen from the table, no differences were found between measurements in the nonparaphilic group.

Table 8 presents social competence. Examination of social competence showed a change throughout the measurements in all the variables examined, particularly during the first two measurements, while subsequently the trend remained stable.

CRIMINAL RECORDS AND RECIDIVISM RATES

A list of 89 patients who had been treated at the center, and for whom we sought to examine the rates of recidivism from the day they left the center, was submitted to the Israel Police. The information received from the Israel Police referred to the number of criminal listings as well as to the type of offense. Table 9 presents the frequency of recidivism among patient who had been treated at the center by reason for leaving.

Since the number of participants was particularly small, there was statistically no room to perform comparison analyses between the groups. Nonetheless, the table shows

Table 5. *Self-monitoring: Risk factors, internalization of therapeutic messages, and application of therapeutic messages in daily life*

Risk factors	Measurement 1 Suitability for the program N=41 N (%)	Measurement 2 N=37 N (%)	Measurement 3 N=37 N (%)	Final measurement Treatment conclusion report N=39 N (%)	Differences between measurements (1-4)
Recognition (cognitive level)					
No	26 (63.4)	4 (11.1)	--	--	2>1*** 3>2*** 4=3
Partial	13 (31.7)	20 (55.6)	5 (13.5)	4 (10.3)	
Yes	2 (4.9)	12 (33.3)	32 (86.5)	35 (89.7)	
Understanding (cognitive level)					
No	26 (63.4)	6 (16.7)	1 (2.7)	1 (2.6)	2>1*** 3>2*** 4=3
Partial	14 (34.1)	23 (63.9)	7 (18.9)	8 (20.5)	
Yes	1 (2.4)	7 (19.4)	29 (78.4)	30 (76.9)	
Insight (emotional level)					
No	36 (87.8)	14 (38.9)	5 (13.5)	3 (7.7)	2>1*** 3>2*** 4=3
Partial	5 (12.2)	19 (52.8)	11 (29.7)	15 (38.5)	
Yes	--	3 (8.3)	21 (56.8)	21 (53.8)	

***p<.01, ***p<.001*

that of the center's 41 graduates, only two subsequently acquired a criminal record (4.88%). One had a record for a sex offense (indecent assault and taking advantage of a situation that prevents consent), committed about 14 months after leaving the center. Of the patients who did not complete the treatment, three (6.25%) have a criminal record for sexual offenses (sexual assault of minors). Another nine (18.75%) have a criminal record for traffic, violence, property and drug offenses.

DISCUSSION

The purpose of the current study was to explore the efficacy of the treatment provided by a community-based center for treatment of adult sex offenders, the first of its kind in Israel. Like other open day centers that treat sex offenders in the community (42), and in line with the center's criteria, participants were classified in the medium-low risk category (according to Static-99R). Treatment evaluation and monitoring of the center's graduates was performed by analysis of four measurements taken throughout the treatment. The investigators focused mostly on examined indices related to dynamic factors and on recidivism rates.

In general, the findings point to the efficacy of treatment at the center. Along with improvements in the various measures examined, low rates of recidivism, as reported by the Israel Police, support these results. However, in light of the low and similar rates of recidivism found in patients who did not complete the treatment (based on the information received from the Israel Police – see Table 9) the discussion will also address the question of the efficacy of treating populations not initially defined as having a high level of risk, spanning the low to medium range. Only approximately half of the sex offenders treated at the center met the DSM-IV criteria for paraphilia. The others were defined as nonparaphilic. Since there were no differences between the groups in all of the measures examined, we looked at differences in

Table 6. *Offense supportive attitudes: Use of cognitive distortions and defense mechanisms*

	Measurement 1 Suitability for the program N=41	Measurement 2 N=37	Measurement 3 N=37	Final measurement Treatment conclusion report N=39	Differences between measurements (1-4)
Cognitive distortions in relation to:					
Victim	39 (95.1)	22 (61.1)	6 (16.2)	6 (15.4)	2<1*** 3<2*** 4=3
Offense	36 (87.8)	19 (52.8)	4 (10.8)	3 (7.7)	2<1*** 3<2*** 4=3
Offense severity	36 (87.8)	21 (58.3)	6 (16.2)	7 (17.9)	2<1*** 3<2*** 4=3
Defense mechanism					
Denial	30 (73.2)	12 (33.3)	6 (16.2)	7 (17.9)	2<1*** 3<2*** 4=3
Projection	35 (85.4)	17 (47.2)	4 (10.8)	5 (12.8)	2<1*** 3<2*** 4=3
Normalization	21 (51.2)	12 (33.3)	4 (10.8)	5 (12.8)	2<1** 3<2** 4=3
Rationalization	39 (95.1)	26 (72.2)	7 (18.9)	8 (20.5)	2<1** 3<2*** 4=3
Intellectualization	2 (4.9)	0	0	1 (2.6)	---
Minimization	37 (90.2)	24 (66.7)	7 (18.9)	8 (20.5)	2<1** 3<2*** 4=3
Total: Defense mechanism	40 of 41 (97.6)	28 of 36 (77.8)	7 of 37 (18.9)	8 of 38 (21.1)	2<1** 3<2*** 4=3

**p<.01, ***p<.001

Table 7. *Social skills*

Social skills	Measurement 1 Suitability for the program	Measurement 2	Measurement 3	Final measurement treatment conclusion report	Differences between measurements (1-4)
Paraphilic	N=21	N=19	N=21	N=20	
social relationships:					
with the age group	11 (52.4)	13 (68.4)	20 (100.0)	19 (95.0)	2=1, 4=3 (3,4>1,2**)
with the opposite sex	7 (33.3)	6 (31.6)	11 (55.0)	10 (47.6)	
Nonparaphilic	N=20	N=18	N=19	N=20	
social relationships:					
with the age group	20 (100.0)	17 (94.0)	17 (100.0)	19 (100.0)	NS
with the opposite sex	15 (75.0)	14 (70.0)	15 (75.0)	16 (84.2)	NS

**p<.01, ***p<.001

Table 8. *Social competence*

	Measurement 1 Suitability for the program N=41	Measurement 2 N=37	Measurement 3 N=37	Final measurement Treatment conclusion report N=39	Differences between measurements (1-4)
Behavioral level					
0. No	6 (14.7)	3 (8.1)	0	0	2=1, 4=3 3>2** (3,4> 1,2**)
Partial	16 (39.0)	15 (40.5)	8 (21.6)	8 (20.5)	
Yes	19 (46.3)	19 (51.4)	29 (78.4)	31 (79.5)	
Cognitive level					
No	3 (7.3)	1 (2.7)	0	0	2=1, 4=3 3>2** (3,4>1,2**)
Partial	17 (41.5)	15 (40.5)	7 (18.9)	8 (20.5)	
Yes	21 (51.2)	21 (56.8)	30 (81.1)	31 (79.5)	
Emotional level					
No	20 (48.8)	10 (29.7)	3 (8.3)	3 (7.7)	2=1 3>2** 4=3
Partial	11 (26.8)	17 (46.0)	20 (55.6)	20 (51.3)	
Yes	10 (24.4)	9 (24.3)	13 (36.1)	16 (41.0)	

**p<.01, ***p<.001

the four stages of treatment for all offenders in aggregate, except for the variable of social skills.

Generally, the findings indicate an improvement over time (differences among four measurements), particularly among Stage I respondents. Stage I measurements show a gradual drop while Stage II measurements are stable. The results show a general trend indicating adjustment and acceptance of the rules set by the therapeutic facility as well as attainment of significant therapeutic targets. Most of the participants appear to have benefited from the treatment. They assumed more responsibility, reached a better understanding of their risk factors, of the severity of their deeds, and of their personal dangerousness.

Cognitive distortions and the use of six different defense mechanisms (denial, projection, normalization, rationalization, intellectualization and minimization) were also significantly reduced. At the beginning of the treatment, most offenders used all the defense mechanisms examined (except intellectualization). At the end of the process, only a few of them continued to use the defense mechanisms.

These findings confirm various studies, which indicate that sex offenders make considerable use of cognitive distortions, mainly for purposes of denial and minimization (e.g., 32, 43, 44). Improvement in the indices and change in these distortions are significant measures indicating transformation and success of the treatment. Simply put, it may be concluded that the findings indicate a gradual change in the indices examined and that the extent of the cognitive errors diminished, while ability to empathize with the victims rose as treatment progressed.

The study results indicate a process of progress, regression and repeated progress, mainly among clients in the first stage of treatment. This process is mostly evident with regard to treatment-related indices: for example, assuming responsibility for perpetrating the offense and showing remorse and empathy for the victim. Clients who reached a more advanced stage of treatment (after several months) appeared to be more stable. Moreover, lack of differences between the third and fourth stages led to the possibility that this is evidence of an ability to make use of the therapeutic gains. These results are in line with other studies (5, 11). This is also true of cognitive distortion. The findings demonstrate that change in thinking errors is a gradual process that takes place as the therapeutic procedure progresses.

The change in the above factors makes it possible to assess the ability of sex offenders to cope with shifting life situations in daily life and can serve as an indication of

Table 9. *Frequency of recidivism among patients who had been treated at the center by reason for leaving**

	Graduates (41)	Did not complete treatment (41)	Incarcerated by the court (7)
Sex offenses	2.44 (1)	7.3 (3)	--
Other offenses	2.44 (1)	14.63 (6)	42.85 (3)
Total	4.88 (2)	21.93 (9)	42.85 (3)

*Note: The top number – percentage. The bottom number – number of patients

ability to apply and internalize the therapeutic messages. However, a careful examination of the findings indicates greater complexity of the treatment process.

The findings on social skills with peers and members of the opposite sex are not surprising and are consistent with studies that indicate difficulties in these areas, especially among child sexual abusers (45, 46). These difficulties were observed in the present study, already in the first measurement exclusively in the paraphilic group (here, the average victim age was particularly low, with most offenders classified as pedophiles). One of the goals of therapy is to enhance social skills and social competence (see also 32, 43, 47).

Although we found substantial improvement, the ability to form social relationships (with the age group and on social skills with the opposite sex), research shows a marked fear of intimacy and a low involvement in practices that can lead to intimacy (for review, see 48). Improving the ability to form intimate relationships is a lengthy and complex process that requires extensive skills (48, 49). Similarly, even though most of the offenders took responsibility for their actions at the end of the process, the ability to empathize with the victim exists only partially among a considerable number of the offenders. As with relationship formation, the ability to empathize with another is complex. Therefore, any change in this context is significant, even if slight (50).

Finally, the offenders learned how to recognize their personal patterns of offending (triggers of offending, risk factors and offense cycle), and there was an improvement in their ability to understand these patterns (on the cognitive level). However, when examining the personal patterns of offending on the emotional level, the success rate is significantly lower. An improvement is evident mainly on the cognitive level (recognition and understanding) and less on the emotional level (insight). According to the cognitive approaches, changes in thinking lead to assimilation of behavior patterns over time. Nonetheless, the research findings show that changes on the emotional level are slower and perhaps more complex. To our knowledge, a combination of the three levels, as examined in this study, has yet to be explored (6, 22, 51). There is room for further research in order to investigate the subject more thoroughly.

The low recidivism rates according to police records support our findings and are compatible with other results, indicating treatment efficacy and reduction of recidivism rates, mainly following treatments that include cognitive methods (for example, CBT) (4, 52).

However, the low recidivism rates among those who did not complete the treatment raises the question of the necessity of intensive treatment given to those offenders who completed it. As mentioned, the treatment at the center is structured and uniform, and it is intended for patients evaluated as being at medium-low risk (26). There is a debate in the literature whether patients at a low level of dangerousness should be treated. The various findings show that low-risk sex offenders have significantly lower rates of recidivism than medium-, high-, or very high-risk sex offenders and the recidivism rates of low-risk sex offenders may, indeed, be negligible (53). For example, Barnett, Wakeling and Howard (54) found that low-risk sex offenders had a four-year sexual recidivism rate of 0.7%, whereas the very high-risk sex offenders had a rate of 27.3%.

In another study conducted in Israel, Epstein and Helfman (55) compared data on sex offenders who were released from prison and then were returned to prison for sexual offenses or violation of a supervision order (within three years from the date of release) with data on released sex offenders who were not returned to prison. The findings of their study indicated a possible aggravation among those with low risk who were included in the treatment.

It will, therefore, inevitably be difficult to show significant reduction in reoffending in a group that already has very low rates of reoffending. As for the necessity of their treatment, based on the literature review by Wakeling and colleagues (53), it seems conceivable to conclude that appropriate allocation of limited resources should focus exclusively on high-risk sexual offenders. However, there would be a number of issues to contend with should low-risk sexual offenders go untreated. Nevertheless, this issue is beyond the scope of our study and further evidence is required.

The current study has several limitations. First, although all graduates of the treatment center participated in the study, the sample was relatively small. Thus,

quantitative analyses were limited by the small sample size with low base rate. Many studies examining sex offender treatment outcomes are based on small samples (e.g., 9, 56). However, caution is required in generalizing the findings and replication with larger samples would be encouraged. Also, we had no information on offenders who had not completed the treatment, beyond the recidivism rates received from the Israel Police. Therefore, it was not possible to compare them to offenders who had completed the treatment.

This research makes a significant contribution in evaluating treatment progress over time at four different points in time in the first community-based treatment center for sex offenders in Israel. The findings support the center's manner of operation. They are corroborated by similar conclusions received from different sources. The combination of analyzing treatment progress throughout the stay in the center in addition to taking into account official recidivism rates made it possible to present a wide picture with regard to the efficacy of treatment.

The current findings enhance the understanding whereby treatment of sex offenders is not only gradual, but also complex. Improvement should be measured on different levels: cognitive, behavioral and emotional. It is possible to refer to a continuity that begins at a first stage with cognitive understanding. The second behavioral stage is manifested in implementation of content learned in daily life. While in the third "deeper" stage, patients are capable of understanding, feeling, and adapting the treatment contents in changing situations.

Clinicians distinguish between these three levels (e.g., 50, 57), although, as far as is known, this distinction has not been reported in the research on treatment. Standard CBT group treatment programs for sexual offenders focus broadly on correcting cognitive distortions, changing attitudes towards sexual offending, and relapse prevention training. There is room, as Sakdalan and Gupta (57) suggest, to consider dialectic behavior therapy (DBT), as it holds some promise in addressing issues around general, affective, cognitive and sexual dysregulation. DBT may provide an alternative way of thinking about sexual offender treatment. Further research in this direction is in order.

There is room for future research to examine with the clients themselves what they perceive to have been the factors that affected therapy effectiveness and what they found helpful in reducing their risk of recidivism and to take into account additional parameters, such as resilience factors.

Finally, these results raise the need to reexamine existing treatment methods for low risk cases and question existing therapeutic strategies and resource allocation for treating sex offenders defined as low risk vs. high risk. Given society's desire to reduce the rate of sexual offending, it is important to debate whether low-risk sex offenders should be treated at all. Careful consideration of the literature leads to the conclusion that the most appropriate policy is to focus resources on higher-risk offenders in terms of intensity and treatment doses, and to offer a more limited treatment service to low-risk sex offenders (53).

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