**The impact of open group cohesiveness on recidivism rates among adult offenders in probation services**

**Abstract**

Purpose: This research examined the impact of group therapy conducted by probation services for adult offenders. Design/Methodology: The research population included all offenders (419) who, having met the statutory criteria, were ordered by the court to participate in group therapy in lieu of a jail sentence. A qualitative study identified themes common to group facilitators, counselors, and probation management regarding expected results from group intervention and methods. A quantitative study was conducted using questionnaires on social contacts and resources and group cohesiveness, adapted to the themes identified. Participants responded to the questionnaires before beginning and upon concluding group therapy. Findings: Participants reported improvement in their psycho-social state and better interpersonal relationships, also reporting high levels of group cohesiveness after therapy. Originality: Importantly, six months to one year after conclusion of therapy, 90% of the participants had not returned to crime (data obtained from the criminal registry).

**Key words:** adult offenders, cohesion, recidivism, open groups, group therapy impact

**Introduction**

 Reducing potential danger to society is the primary goal of adult probation services, accomplished by rehabilitating offenders on probation, monitoring their re-integration into the community, and reducing recidivism (Yukhnenko *et al*., 2019). Recidivism, a return to the cycle of crime or delinquency within a given period of time after a first conviction, is defined by a new arrest, a new indictment, a new conviction or a new sentence (Lyman and LoBuglio, 2006). In *our country* recidivism relates to convicted prisoners who are again convicted and sentenced to imprisonment or community service within five years of their previous release, and according to *our country's* Prison Services Research Unit, the national rate is about 43.5% (Ben Zvi and Wolk, 2011).

Two types of factors that may affect the chances of a lawbreaker's return to delinquency and prison are static (non-modifiable) and dynamic (modifiable) risk factors (Vincent *et al*., 2012). Static factors are permanent and unchangeable factors: gender, age, country of origin and criminal history (Humphrey *et al.,* 2012), and can illuminate broad social trends. Identifying static factors allows us to focus on populations in which resources should be invested to help prevent the likelihood of a return to delinquent behavior (Ben Zvi and Wolk, 2011; Hanson, 2018). Dynamic factors, however, are not constant and may change over time: self-perception and perception of society, patterns of antisocial behavior, addiction to dangerous substances, employment and education (Gendreau *et al*., 1996). Treatment and rehabilitation programs aim at influencing those modifiable factors (Ben Zvi and Wolk, 2011).

Rehabilitation programs typically employ group therapy, a proven intervention for behavioral change among adult offenders (e.g., Jewell *et al*., 2015; Marshall and Burton, 2010) by helping offenders develop insights into their motivational and behavioral patterns, particularly those that result in illegal behavior, while simultaneously increasing awareness of their interpersonal behavior (Yukhnenko *et al*., 2019). While group therapy has generally proven beneficial (Lloyd *et al*., 2014), the essentials of group therapy with adult offenders, including the group process, remain unspecified and hence less easily replicated. Given that large numbers of adult offenders are placed on probation annually, it is crucial that studies explore specific program components that effectively contribute to reducing recidivism.

One component in group therapy associated with treatment outcome is group cohesion, considered the most significant of the relationship constructs (e.g., alliance, group climate, and group atmosphere) in the clinical and empirical literature on groups (Burlingame *et al*., 2018). Cohesion refers to a network of affective bonds that forms the base for therapeutic “work” in the group process (Joyce *et al*., 2007). Group cohesiveness in its most basic form refers to the attractiveness of a group for its members (Yalom, 1995). The construct of cohesion was defined by Burlingame, McClendon, and Alonso (2011) as *vertical* and *horizontal* cohesion. Vertical cohesion refers to a member’s perception of the group leader (competence, genuineness, and warmth) and horizontal cohesion describes a member’s relationship with other group members and also with the group as a whole. Burlingame, McClendon and Alonso (2011) conducted a meta-analysis examining the relationship between cohesion and treatment outcome of general populations in 40 studies published over four decades. They found a positive correlation between cohesion and group therapy outcomes for groups across different settings when outcome was defined as a reduction in symptom distress or improvement in interpersonal functioning. Clinical practice and limited studies have also identified group cohesiveness as essential for achieving treatment benefits for adult offenders (Marshall and Burton, 2010).

In our country, the primary model of group therapy implemented in the adult probation service is open groups. Open groups do not have a preset end date. They are ongoing by nature, with the group composition changing constantly (Sheriff and Pollak, 2008). This model allows for relative flexibility, which eases the joining of new members and the exit of participants who have finished their treatment or who did not integrate successfully into the group. Through the open group model, mutual assistance and support are made available to participants who share similar life stresses (Schopler and Galinsky, 2006). Given that the group climate, particularly the cohesiveness of the group, is significantly related to the positive benefits that result from treatment (Burlingame *et al*., 2011; Frost *et al*., 2009; Marshall and Burton, 2010), it is important to examine the level of cohesiveness achieved in an open group whose composition changes over the course of treatment of its members. The current study focused on the relationship between group cohesion and reducing the chances of recidivism among adult offenders.

**Group Cohesion in Open Groups**

In his book *The Theory and Practice of Group Psychotherapy*, Irvin Yalom (1995) established the concept of group cohesion as one of the important therapeutic forces in groups. This very important therapeutic factor relates to the human need to belong to groups, furthering the approach that an individual's personal development can occur only in the context of interpersonal relationships in a group setting. In a cohesive group, all members feel a sense of belonging, acceptance and personal validity, much like the therapeutic relationship in individual therapy. Yalom found that the time variable has significant value as a healing power: the longer the relationship continues and strengthens, the more the therapeutic and treatment outcomes will be effective. These data were tested in open and structured groups, both of which found that cohesion of the group affects treatment outcomes in both open and structured groups.

Another concept of group cohesion in open groups is the group analysis theory formulated by Foulkes in the 1940's (Foulkes, 1948), and which has gained recognition over the years. The open group is a central ideology of therapy, where processes of exit and entry are a key component enabling participants to experience a variety of emotions and struggles with diverse content domains. Group members are exposed to themes brought by the old and familiar members as well as by the new members, whose process of entry into the group represents a therapeutic step that is both regressive and progressive. Moreover, group analysis suggests that "the beneficial object is the whole group" (Berman, 2015, p. 63), in the sense that a group provides belonging, calms anxiety, facilitates transitions and allows space and time (Berman, 2015) without pressure of achievement time limits, and fear of 'getting stuck'. An open therapeutic group, termed a "slow open" group by Joffe-Milstein (2015, p. 182), has no designated end and is therefore not time-limited, contributes to the development of cohesion, increasing the therapeutic value for its participants. Participants enter and exit: those who have completed the treatment period leave the group and newcomers enter and integrate. Joffe-Milstein (2015) explains the value of entrances and exits as "from disturbance to growth" (ibid., p. 181), meaning that the group's entrances and exits shift, over time, from posing a threat to group life and being a source of concern, hostility and tension, to developing into a source of learning and growth, where the process of change can be observed and the individual learns to cope and strengthen himself in the face of dependency and regression. This contrasts with the structured and closed group which acts much like individual therapy, with regular rhythms of treatment, affected only by the patient's condition and the relationship that exists in the treatment. An important study recently conducted by Chapman and Kivilighan (2019) found that group cohesion develops and influences the course of group therapy and treatment outcomes as a result of the dynamic relationship within the group. It was found that anxiety symptoms decreased over time as a result of the ongoing group process and the effect of group cohesion, indicating a direct relationship between open-group cohesion and the participant's therapeutic outcome. At the same time, the open group has limitations and has been criticized for its effectiveness, given the difficulties the group may create. The slow building of group cohesion may be periodically impaired by participants' exits and entrances. Consequential regressive processes are difficult and harsh for some participants, representing a sense of lack of boundaries for those who have difficulty with these situations. Barr and Hurst (2010), who dealt with analytic group therapy for many years, maintained that the central criticism is primarily of the regressions that participants undergo, as well as the concerns and anxieties that emerge from the group as they go through the process, but they perceive the therapeutic value as outweighing the negatives. Moreover, Berman (2015) contends that an open therapeutic group is not necessarily effective for everyone, such as those individuals whose self-structure is not yet solidified, or for those with narcissistic deprivation. These individuals will have difficulty coping with the gap between their own needs and group interactions and needs of others, as is required in open groups. Another limitation of an open group may reflect the reality of the modern age, where people, especially young people, are in need of immediate and quick responses, and have difficulty with extended processes. Facilitators may find it difficult to keep a firm hold on the group, considering the demand for short, quick and immediate therapy (Lorentzen *et al*., 2018). The main drawback of open groups may therefore be that they are long-term processes requiring the ability to cope with such progression. With this in mind, the present study examines the effect of open group therapy on adult offenders in probation, by inspecting participants' recidivism rate after having participated in such groups.

**Method**s

***The Current Study***

The current study examines group cohesion in open groups of adult offenders in probation services, and the level of recidivism after the end of group therapy. The central challenge in evaluating the group process stemmed from the tremendous heterogeneity of the participants’ backgrounds, type of offense, difference between the group facilitators and more. Hence, we used a mixed research method, both qualitative and quantitative. The qualitative research served as a key to understanding the expected results of the group intervention, from the perspective of the therapist. The information received gave expression to the voices of the different professionals involved in the group intervention (group facilitators, counselors, and probation service management) concerning expected results, and contributed to the choice of appropriate quantitative tools for examining the expected results in achieving their stated goals, i.e. reducing the rates of recidivism.

Our first step was to assess therapists’ perceptions of important therapeutic factors in the group work process with offenders. Second, we investigated whether group cohesion was associated with differences in group types. Finally, we examined the recidivism rates for each participant at least six months after completing group therapy.

The research model employed was the mixed-method approach. Studies have demonstrated that integrating qualitative and quantitative methodologies enables both constructing measurement tools to accurately express the nature and significance of the phenomenon studied, and to receive as broad and diverse a picture as possible of the nature and significance of the study’s quantitative findings (Onwuegbuzie *et al*., 2010). This study meets two main objectives of the mixed-method study (Creswell and Plano-Clark, 2007; Greene, 2007): 1) triangulation - using different methods to investigate the same phenomenon, to strengthen confidence in the conclusions drawn on that phenomenon; and 2) development – where findings obtained in one method are used to develop the other method (e.g. research tool development). In this study, the qualitative method was used to extract variables that were tested in the quantitative study.

The research was carried out over a three-year period. In the first stage, a qualitative study was conducted with 70 probation service facilitators (probation officers), counselors, and management to identify their expected results from open group therapy for adult offenders. The researchers organized and conducted nine focus groups of probation officers from different regions across the country (*N*=49), one focus group of counselors (*N*=15), and one focus group of probation service management (*N*=6). In the second stage, a quantitative study was conducted using questionnaires based upon the themes identified in the first stage. One of the themes was group cohesiveness, on which this manuscript focuses. The research population in this stage included all adult offenders (*N* = 419) served by *our country's* Probation Service during the period from December 2013 to December 2014 who, having met the statutory criteria, were ordered by the court to participate in group therapy in lieu of a jail sentence.

The adult offenders were divided into 94 therapy groups, with each group comprised of participants from one of four categories of criminal offense: violence in the family (*N* = 57), general assault (*N* = 49), female offenders (*N* = 21), and other crimes (*N* = 59). All participants were new or had joined a therapy group less than one month prior to the study period. The group facilitators addressed each participant individually, explaining the purpose of the study and the opportunity to participate voluntarily. In addition, each participant signed an informed consent form which again offered the opportunity to choose to participate in the study and / or opt out at each stage. The group facilitators (probation officers) distributed the questionnaires to the participants in their groups at two time points: before joining the group and upon conclusion of participation. The group meetings were held once a week, for an average of 6 months, i.e. a minimum of 24 sessions. However, it should be noted that these were open groups so that during the time period, the composition of the groups changed. The questionnaires were distributed and coded anonymously. Average cohesiveness was calculated for each category and the results were then compared. In addition, recidivism was measured for participants six months to one year after completion of group therapy.

Participation in the research was voluntary and accepted upon signing an informed consent form. Each consent form and each questionnaire was coded in a way that did not allow the identification of the participant. Between the first and second phases of the research, the questionnaires were kept in a safe. The study was approved by the internal ethics committee of the researchers’ academic institution. Both researchers have GCP certification.

***Participants***

The research population included all adult offenders under the auspices of probation services, who began participation in group therapy between December 2013 and December 2014. The data shows that the majority of participants were male (88.5%) and had children (~52%). The percentages of married (44%) and single (40%) were similar. The average age of participants was 35 (*M* = 34.93, *SD* = 10.43). The majority had a high school education (57%), described their economic status as middle-income (~58%), and were employed full-time (73.3%).

***Research Tools***

*Sociodemographic characteristics***.** The questionnaire requested data on gender, birthdate, date of immigration (if relevant), personal status, military service, religion, education, therapy background, economic status, perception of personal health, employment and more. Additional questions addressed the characteristics of participants' social interactions, evaluating the frequency of different types of social interactions.

*Group Cohesiveness Scale (GCS)* (Wongpakaran *et al*., 2013).This questionnaire examines group atmosphere, the individual member’s feeling of inclusion, the feeling of trust and empathy between group members, and the perception of level of involvement and ability to reveal personal information and feelings. The GCS includes seven statements, measured on a scale from 1 to 5, with 1 = I strongly disagree and 5 = I strongly agree. A high score reflects a high level of group involvement and cohesiveness. Cronbach’s α for all factors measured ranged from 0.68 – 0.91.

*Measuring recidivism***.** Participant recidivism was verified by the probation officers based upon the criminal registry at a set time for each participant, at least six months after the participant completed therapy. Recidivism was monitored for participants who completed the questionnaire upon beginning and upon ending group therapy and who participated in the group for at least six months. The following data were recorded: beginning and ending dates of group therapy, type of group, whether the participant was convicted (1 = yes; 0 = no), type of crime, date of earlier crime, number of new crimes, and date of registry examination.

*Qualitative analysis of themes***.** Analysis of the qualitative findings was conducted using the Investigator Triangulation approach (Jonsen and Jehn, 2009). This approach provides high validity to qualitative research, as each researcher analyzes the data separately before comparing results for isolation of central themes. The goal was to extract from the focus group transcripts the central themes relating to common expected results of the group intervention, and the therapy factors that contributed to achieving them. This analysis isolated the central theme of group cohesiveness, prominent in discussions of group atmosphere.

**Results**

***Qualitative Findings***

Focus group findings indicated that probation service counselors and management believed that participation in open groups would correlate with behavioral, social, and psycho-social change among the members. In addition, researchers identified a theme relating to group atmosphere as influencing these results. Themes that arose with regard to group atmosphere related to expected behaviors that develop among group members in order to create group cohesiveness, which, in turn, enables processes of change whose goal is to prevent recidivism.

One central theme dealt with the need to reduce resistance to joining the group given that participation was voluntary. One facilitator noted: *“It is necessary to get them to understand that this is a gift and that connecting to the group and finding one’s place within it is an achievement.”* Another expressed the sentiment this way: *“This is a process that is very difficult in the beginning, and slowly they understand the significance of what happens in the room for what they experience outside.”* The majority of participants had no prior experience with this type of therapy, hence the tremendous importance in building their trust in the potential of the group process. One facilitator stated that she saw it as part of her role *“to get the participants to believe in group therapy.”* Another facilitator described his own achievement as *“when a participant describes the group as having given him a new way of thinking during an event that happens outside of the group.”*

An additional theme identified was the need for participants to develop a sense of commitment and belonging to the group, necessary for reaping the benefits of the group’s development: *“To commit to coming to complete a task, continuous participation.”* Similarly, commitment and a sense of belonging opens one to the possibility of being helped by others in the group: *“It is ok that they will touch me and that I will touch others, that is part of being in a group”* and to project this onto the world outside: *“To see others as significant for them, that says that they learned that there is something good in people.”* Another facilitator said: *“If the group is significant enough, then when a person is tested in real life, something of the group process will succeed in preventing him from being seduced [to commit a crime].”*

Another theme referred to the ability to expose oneself and help others do the same: *“To use the group space to bring up one’s defects”* or as another expressed: *“There is trust, openness, the ability to be vulnerable, to disrobe and reveal painful stories, ugly things, feelings…”*; the ability to look inward: *“They begin to release, to relax, to speak about themselves and to look upon themselves”* but, at the same time, to listen to others: *“Someone who never let anyone else speak, today is better able to listen to others. When others raise problems and he relates to them with respect and is open to other opinions.”*; the ability to use the group as a tool for change: *"…a participant brings something from the outside and uses the group members to examine his conduct.”* This last statement indicates the importance of building the group atmosphere in preventing recidivism. The process of extracting central themes led to the choice of quantitative research tools.

***Quantitative Research Findings***

The quantitative data for social contacts and interactions were analyzed statistically to examine the differences between two time points: upon joining the therapy group and upon conclusion of participation.

 <Table 1 here>

The findings demonstrate a significant difference between the number of family members with whom the participants were in contact before joining the group and at the conclusion of their participation (3.68 to 2.96). The number of close friends also decreased in the same time period (5.6 to 4.97); although this difference was not significant, it did show an important downward trend. These findings demonstrate a change in the constellation of social connections maintained by the participants with family acquaintances and close friends.

 <Table 2 here>

The findings show that the number of respondents who reported that they got along “better than usual” with other people increased by over 18% (from 52.8% to 70.3%) and stemmed from those who had previously reported that they got along “more or less the same” or “less well than usual”.

***Group cohesiveness.*** The level of group cohesiveness was examined at the conclusion of group therapy by comparing the averages from four categories of criminal offenses. The findings (Table 3) demonstrate that there were no statistically significant differences between the categories for level of group cohesiveness. Participants reported a high level of cohesiveness, 4.0, on a scale of 0 – 5. All groups scored relatively high on group cohesion, with the lowest score being 3.78 (out of 5.0), and a mean score of 4.0 (SD = 0.2). <Table 3 here>

 ***Recidivism rates*.** In the study’s third stage, recidivism rates were calculated for all participants who responded to the questionnaires at both time points, before beginning group therapy and at the end of group therapy (*N* = 216). It was found that up to one year after completing group therapy, ~9% committed new crimes and over 90% had not returned to crime.

**Discussion**

This research examined cohesion in open groups for adult offenders on probation. In the first stage, a qualitative study was conducted among focus groups of facilitators and management from the probation service. A key theme that emerged was the importance placed by facilitators on the group process as the foundation for achieving the expected therapy results. The analysis shows that in all types of groups (domestic violence, general violence, female offenders, and the integrated groups of fraudulent sex offenders, and young people), the level of group cohesion is relatively high. No significant differences were found between the groups, possibly due to the consensus among the facilitators concerning the atmosphere required to achieve the treatment results and their high commitment to creating this atmosphere.

Among the elements of group atmosphere, group cohesiveness stood out as an important therapeutic strategy for achieving the primary desired therapeutic result, namely the prevention of recidivism (Willemsen *et al*., 2016). The importance of group cohesiveness expressed here supports prior findings (e.g., Burlingame *et al*., 2011). In addition, both probation department facilitators and management identified two common expectations that group therapy participants develop the ability: 1) to identify others in the group as significant to their process of change, and 2) to transfer the group experience to the outside world.

Analysis of the quantitative findings shows that all categories of groups reached a relatively high level of perceived cohesion. One possible explanation for the absence of difference between the groups, is the similarity with which the group facilitators perceived the group atmosphere required to achieve the desired therapeutic results and their deep commitment to creating that atmosphere, as demonstrated by the qualitative findings (Burlingame *et al*., 2011). Level of group cohesiveness is described in the literature as a strong and significant predictor of success in achieving treatment goals and as a prior condition for desired change (Lloyd *et al*., 2014). In our study, it appears that achieving a high level of group cohesiveness contributed to change in the constellation of social relations maintained by the adult offenders outside the group and not only within it.

The current findings indicate that at the end of group therapy, an increased number of participants perceived themselves as getting along better with others. This finding supports the group facilitators’ expectations (indicated in the qualitative study) that the participants would learn to see their fellow group members as agents in their personal change. Perhaps this change can be attributed to the offenders' opportunity to experience a human encounter of a different type. Group cohesion enabled building relations based on a sense of support, acceptance, identification by the group(Bloch and Crouch, 1985), a sense of belonging, and engagement(Frost *et al*., 2009). The more significance offenders place on the group, the more they would feel a sense of belonging, and thus the more inclined they would be to accept group values and norms that contribute to the effectiveness of group therapy (Frost *et al.*, 2009).

An additional finding showed that the number of family acquaintances in the participants' social circle at the beginning of therapy decreased by a statistically significant degree by the end of therapy, as did the number of friends. A possible explanation for this decrease is that a change in their worldview led participants to develop critical thinking regarding who they choose to include in their inner circle. Another possible explanation is that participation in the group led to decreased ties with others. Open groups are, in essence, a family model, a therapeutic framework of family relations in which history and continuity play a meaningful role (Pollak *et al*., 2012; Schopler and Galinsky, 2006). Participation in the group may have enabled the members to experience belonging to a normative group, leading them to reexamine their prior relationships and change the character of their social relationships (Frost *et al*., 2009). It appears that the therapeutic group process fostered a degree of repair in the perception of family and family relationships, since the family system of relations is experienced anew in the group: relations with ‘siblings’ – group members – and with ‘parents’ – group facilitators. This complex therapeutic process is the foundation of open groups, given that the source of impairment in offenders often lies in the system of family relations (Pollak *et al*., 2012).
We thus assume that one effect of group cohesion was related to the change in participants' social network components. Group cohesion resulted in the change in numbers and quality of social connections and probably also contributed to reducing recurrence of the offense. We base this assumption on the literature that indicates that dynamic factors influence changes in the tendency to revert to criminality (Ben Zvi and Wolk, 2011; Vincent *et al*., 2012), where in the literature the dynamic variables relate to perceptions of society and delinquent behaviors in society. These changes seem to have led to a reduction of social connections, where the individuals understood that such connections were not positive ones, and could lead them into returning to patterns of anti-social behavior. Further support may come from the proven correlation in the literature between cohesion and group therapy outcomes.

Evaluation of the involvement in group therapy was also examined according to the post-therapy rate of recidivism. The variable of recidivism is exceedingly important, since its prevention is the primary task of therapists of adult offenders. The current study found that for all of the participants (216), the rate of recidivism was ~9%. Hence, over 90% of participants in groups run by the probation service did not return to crime within about one year after completing group therapy. This finding is very low in comparison to recidivism rates for adult offenders who served a prison sentence, which in *our country* ranges from 43.5% to 62% (Ben Zvi and Volk, 2011; Knesset Center for Research and Information, 2011). The rates quoted here are from the same time period as our study and represent the same amount of time as our study – one year after release. According to the Prisoner Rehabilitation Authority (PRA), as of 2015, the target population of the PRA included 7,139 prisoners, and the general recidivism rate, measured five years after release, was 41.3%.

***Research Limitations***

One of the limitations of the study is that this vulnerable population is under a probation order; therefore it is possible that, despite theoretically having a choice of whether or not to participate in the study, the choice to participate was a result of their situation. At the same time, the number of entry and exit questionnaires are different, which shows that some participants opted out of the study, therefore exercising their free choice.

A control group was not included in the study, limiting the results with regard to variables of therapeutic intervention. In addition, because the available data for recidivism rates does not differentiate between types of offenders, our research population was compared to all adult offenders who served prison sentences. In future studies, it would be important to record data that enables extracting recidivism rates based on different variables (e.g., type of crime, length of incarceration, number of convictions). Recidivism rates for the current participants should be examined in another two years to determine continued impact of the group therapy. Finally, we received fewer completed questionnaires at the end of therapy than at the start, and the reason for this gap is unclear. Nonetheless, statistical analysis revealed no significant difference between the two groups for the variables examined.

***Conclusions***

Our finding that 90% of adult offenders did not return to crime one year after completing therapy has important policy and practice implications. This validates the assumption upon which the group therapy program was based: involuntary therapy can be effective for adult offenders, even when the offenders do not choose to participate of their own free will.

The finding of a high level of group cohesiveness in this study disputes the prevailing perception in the literature that open groups are an obstacle to building cohesiveness . To cope with the challenge of possible therapeutic regression in open groups, social workers (and other group facilitators) could adopt the policy used by our probation services of setting entry and exit points in advance that are known to facilitators and participants alike.

Referring adult offenders to group therapy as an alternative to incarceration may significantly reduce recidivism, as may the integration of adult offenders into therapy groups during incarceration or upon release from prison. Both the Prison Rehabilitation Authority and social workers staffing prisons can adopt this model.

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**References**

Barr, H., and Hurst, L. (2010), Analytic Group Therapy, a Brainstorming Session. Ach Publishers, Tel Aviv. [*not in English*]

Ben Zvi, K. and Wolk, D. (2011), "Return to imprisonment—recidivism of criminal prisoners released in 2004 in Israel", *A Window to Prison*, Vol. 14, pp.10-28.

Berman, A. (2015), "What is the 'group' in group therapy?", Friedman, R. and Doron, Y. (Ed.s), Analytic Group Therapy in the Land of Milk and Honey*,* Ach Publishers, Kfar Bialik, Israel, pp.61-76 [*not in English*]

Bloch, S. and Crouch, E. (1985), Therapeutic Factors in Group Psychotherapy, Oxford University Press, Oxford.

Burlingame, G., McClendon, D.T. and Alonso, J. (2011), "Group therapy", Norcross, J.C. (Ed.), Psychotherapy Relationships That Work, Oxford University Press, Oxford.

Burlingame, G.M., McClendon, D.T. and Yang, C. (2018), "Cohesion in group therapy: a meta-analysis", *Psychotherapy*, Vol. 55, pp.384–398.

Chapman, N. and Kivilighan, M.D. (2019), "Does the cohesion–outcome relationship change over time? A dynamic model of change in group psychotherapy", *Group Dynamics: Theory, Research, and Practice*, Vol. 23, pp.91–103.

Creswell, J.W. and Plano-Clark, V.L. (2007), Designing and Conducting Mixed Methods Research, Sage, Thousand Oaks, CA.

Foulkes, S.H. (1948), The Study of the Group. An Introduction to Group Analytic Psychotherapy, Karnac Books, London.

Frost, A., Ware, J. and Boer, D.P. (2009), "An integrated groupwork methodology for working with sex offenders", *Journal of Sexual Aggression*, Vol. 15, pp.21-38.

Gendreau, P., Little, T. and Goggin, C. (1996), "A meta‐analysis of the predictors of adult offender recidivism: what works!" *Criminology,* Vol. 34 No. 4, pp. 575-608.

Greene, J.C. (2007), Mixed Methods in Social Inquiry, Jossey-Bass, San Francisco, CA.

Hanson, R.K. (2018), "Long-term recidivism studies show that desistance is the norm", *Criminal Justice and Behavior*, Vol. 45, pp.1340-1346.

Humphrey, J.A., Burford, G. and Dye, M.H. (2012), "A longitudinal analysis of reparative probation and recidivism", *Criminal Justice Studies*, Vol. 25, pp. 117-130.

Jewell, J. D., Malone, M. D., Rose, P., Sturgeon, D. and Owens, S. (2015), "A multiyear follow-up study examining the effectiveness of a cognitive behavioral group therapy program on the recidivism of juveniles on probation", *International Journal of Offender Therapy and Comparative Criminology*, Vol. 59, pp.259–272.

Joffe-Milstein, M. (2015), "From the couch to the circle", Friedman, R. and Doron, Y. (Ed.s), Analytic Group Therapy in the Land of Milk and Honey*,* Ach Publishers. Kfar Bialik, Israel, pp.181-194.

Jonsen, K. and Jehn, K. A. (2009), "Using triangulation to validate themes in qualitative studies", *Qualitative Research in Organizations and Management: An International Journal*, Vol. 4, pp.123–150.

Joyce, A. S., Piper, W. E. and Ogrodniczuk, J. S. (2007), "Therapeutic alliance and cohesion variables as predictors of outcome in short–term group psychotherapy", *International Journal of Group Psychotherapy*, Vol. 57, pp.269–296.

Knesset Center for Research and Information. (2011). "Data on rehabilitation of prisoners", Accessed January 31, 2015 from <http://www.moital.gov.il/NR/rdonlyres/E07F949E-3DC4-4B3F-9135-C006DF15F359/0/shikum_asirim2011.pdf>.

Lloyd, C. D., Hanby, L. J. and Serin, R. C. (2014), "Rehabilitation group coparticipants’ risk levels are associated with offenders’ treatment performance, treatment change, and recidivism", *Journal of Consulting and Clinical Psychology*, Vol. 82, pp.298-311.

Lorentzen, S., Strauss, B. and Altmann, U. (2018) "Process-outcome relationships in short-and long-term psychodynamic group psychotherapy: results from a randomized clinical trial", *Group Dynamics: Theory, Research, and Practice*, Vol. 22, pp.93-107.

Lyman, M. and LoBuglio, S. (2006), “'Whys' and 'hows' of measuring jail recidivism", Paper submitted for Jail Reentry Roundtable. Washington DC: The Urban Institute. Available at: <https://www.urban.org/sites/default/files/publication/43001/411368-Jail-Reentry-Roundtable-Meeting-Summary.PDF>

Marshall, W. L. and Burton, D. L. (2010), "The importance of group processes in offender treatment", *Aggression and Violent Behavior,* Vol. 15, pp.141–149.

Onwuegbuzie, A. J., Bustamante, R. M. and Nelson, J. A. (2010), "Mixed research as a tool for developing quantitative instruments", *Journal of Mixed Methods Research,* Vol. 4,pp.56–78.

Pollak, Y., Gershon, A., Dekel, A., Rozenker, R. and Rotem-Cohen, M. (2012), "Therapy circles in light of the law: group therapy in adult probation services", Ministry of Welfare and Social Services, Adult Probation Services.

Schopler, J.H. and Galinsky, M.J. (2006), "Meeting practice needs: conceptualizing the open-ended group", *Social Work with Groups*, Vol. 28 No. (3–4), pp.49-68.

Sheriff, A. and Pollak, Y. (2008), "Stories from the train: group therapy for violent men", Mahal, H., Hovav, M. and Golan, M. (Ed.s), Addictions, Violence, and Criminal Acts*,* Carmel, Jerusalem, pp.278-293.

Stewart, L., Usher, A. and Allenby, K. (2009), "A review of optimal group size and modularisation or continuous entry format for program delivery", Research Report R-215. Correctional Service Canada. Available at: <https://www.csc-scc.gc.ca/research/005008-0215-01-eng.shtml>

Vincent, G.M., Guy, L.S. and Grisso, T. (2012), Risk Assessment in Juvenile Justice: a Guidebook for Implementation, Macarthur Foundation, Chicago.

Willemsen, J., Seys, V., Gunst, E. and Desmet, M. (2016), “'Simply speaking your mind, from the depths of your soul': therapeutic factors in experiential group psychotherapy for sex offenders", *Journal of Forensic Psychology Practice*, Vol. 16, pp.151-168.

Wongpakaran, T., Wongpakaran, N., Intachote-Sakamoto, R. and Boripuntakul, T. (2013), "The Group Cohesiveness Scale (GCS) for psychiatric inpatients", *Perspectives in Psychiatric Care*, Vol. 49, pp.58–64.

Yalom, I.D. (1995), The Theory and Practice of Group Psychotherapy, Basic Books, New York.

Yukhnenko, D., Blackwood, N. and Fazel, S. (2020), "Risk factors for recidivism in individuals receiving community sentences: a systematic review and meta-analysis", *CNS Spectrums*, Vol. 25 No.2, pp.252-263.

**Table 1: Comparison in time for the variables number of family and friends the participant knows (*t-test*)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Number of family and friends known** | **Before*****M*** | **Before*****S.D*** | **After*****M*** | **After*****S.D.*** | **Significance** |
| Number of family members  | 3.68 | 4.30 | 2.96 | 3.43 | *p* < 0.05 |
| Number of close friends | 5.60 | 5.89 | 4.97 | 5.51 | No data |

**Table 2: Examination of change in constellation of social ties and resources over time in relation to the variable: how well the participant gets along with people today**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **How the participant gets** **along with people today** | Before*N* | Before% | After*N* | After% |
| Better than usual | 109 | 52.7 | 147 | 70.3 |
| About the same | 82 | 39.6 | 55 | 26.3 |
| Less good than usual | 16 | 7.7 | 7 | 3.3 |
| Total | 207 | 100 | 209 | 100 |

*p = 0.0; ꭓ2 = 10.66*

**Table 3: Level of group cohesiveness according to group offense type**

|  |  |
| --- | --- |
| **Variable****Group** | **Cohesiveness*****M (S.D)*** |
| Violence in the family (*N* = 57) | 4.16 (0.77) |
| Assault, general (*N* = 49) | 3.78 (0.80) |
| Female offenders (*N* = 21) | 3.90 (1.30) |
| Other crimes (*N* = 59) | 4.00 (0.79) |

N=no. of groups