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User Report

The Strategic Training Initiative in Community Supervision: Risk-Need-Responsivity in the Real World

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Abstract

Community supervision is the most prevalent form of correctional control. In Canada, there are approximately 95,000 offenders under probation or parole supervision. In the United States the number exceeds five million. Despite the prevalence of its use, little is known about the effectiveness of community supervision. The risk-need-responsivity (RNR) model of offender rehabilitation has guided the development of treatment programs but it has not been applied in situations of one-on-one supervision. In the present study, an RNR-based training program was developed and delivered to probation officers to assist in the direct supervision of offenders under a probation order. Probation officers were randomly assigned to a training or no-training condition. After training, probation officers audiotaped some of their sessions with clients in order to assess their use of the skills taught in training. The results showed that the trained probation officers evidenced more of the RNR-based skills and that their clients had a lower recidivism rate. The findings suggest that training in the evidenced-based principles of the RNR model can have an important impact on the behaviour of probation officers and their clients.

Author's Note

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The Strategic Training Initiative in Community Supervision:
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Probation and parole are two of the most prevalent forms of criminal sanctions imposed by the courts. In Canada, there are over 95,000 offenders under community supervision (Public Safety Canada, 2009) while there are over five million in the United States (Glaze & Bonczar, 2007). Despite its prevalence, very little is actually known about the effectiveness of community supervision. In a review of 15 studies on the effectiveness of community supervision, Bonta and his colleagues (Bonta, Rugge, Scott, Bourgon & Yessine, 2008) found an average decrease in recidivism of approximately two percentage points for offenders under community supervision. With respect to violent recidivism, there was no decrease in recidivism associated with community supervision. These findings led us to question why community supervision is not more effective given the large literature on the effectiveness of offender rehabilitation programming.

The Risk-Need-Responsivity (RNR) Model of Offender Rehabilitation

Interest in the effectiveness of treatment interventions has been longstanding and the so-called "nothing works" report by Martinson (Lipton, Martinson & Wilks, 1975; Martinson, 1974) represented a challenge to rehabilitationists to prove otherwise. Subsequent to the Martinson report, concerted efforts were made to better understand when rehabilitation does "work" and with whom. Narrative reviews of the literature found that treatment could be effective (e.g., Gendreau & Ross, 1979, 1987) as did reviews using the more sophisticated meta-analytic techniques (Lipsey, 1989, 1995; Lösel, 1995). However, most of the reviews focused on the need to conduct evaluations in a methodologically rigorous manner (e.g., Lipsey, 2009) with little attention to the actual content of the interventions. The approach taken by Andrews and his colleagues (Andrews, Zinger, Hoge, Bonta, Gendreau & Cullen, 1990) adopts a more conceptual approach to the literature based on the risk-need-responsivity (RNR) model of correctional assessment and treatment.

First proposed in 1990 by Andrews, Bonta, and Hoge, the risk-need-responsivity model has become one of the most influential models guiding treatment interventions in corrections (Ogloff & Davis, 2004). Although the number of principles have greatly increased since the 1990 paper (presently numbering 15 principles; Andrews & Bonta, 2010a, Andrews & Bonta, 2010b), the three core principles that were initially outlined continue to dominate the scene. These three principles can be summarized as follows:

1. *Risk principle*: Match the level of services to the risk level of the offender. Provide intensive services to higher risk clients and minimal services to lower risk clients.
2. *Need principle*: In treatment, set criminogenic needs as the target of intervention. Criminogenic needs are the dynamic risk factors associated with criminal behaviour (e.g., procriminal attitudes, substance abuse, criminal associates). Non-criminogenic needs (e.g., vague complaints of emotional distress, self-esteem without consideration of procriminal attitudes) are relevant only in that they may act as obstacles to changes in criminogenic needs.
3. *Responsivity principle*: Match the style and mode of intervention to the ability and learning style of the offender. Social learning and cognitive-behavioural styles of influence (e.g., role playing, prosocial modeling, cognitive restructuring) generally work best with offenders.

Applying these three principles, an early review of 80 studies yielded 154 effect size estimates (Andrews, Zinger et al., 1990). In a more recent review that yielded 374 effect size estimates (Andrews & Bonta, 2010a), a clear pattern was evident. Overall, treatment was associated with reduced recidivism i.e., mean effect size of 0.08 or an 8 percentage point reduction in recidivism). However, as adherence to the principles increased, so did the reductions in recidivism. Interventions that adhered to none of the three principles (i.e., targeted low risk offenders and their noncriminogenic needs using non-behavioural therapeutic approaches) were actually associated with a small *increase* in recidivism (r = -0.02, k = 124). Treatment programs that adhered to at least one of the principles showed a small decrease in recidivism (r

= 0.02, *k* = 106). Treatments adhering to two principles showed larger effects (*r* = 0.18, *k* = 84) while those interventions that adhered to all three principles evidenced the largest reductions in recidivism (*r* = 0.26, *k* = 60). If the essential features of effective correctional interventions are those that adhere to the RNR principles, then it seems appropriate to apply them on a more routine basis in the supervision of offenders in the community.

In an attempt to understand why community supervision is less effective than commonly thought, Bonta et al. (2008) looked inside "the black box of supervision". Sixty-two probation officers were asked to audiotape their supervision sessions with clients (Bonta, Rugge, Sedo & Coles, 2004; Bonta et al., 2008). An analysis of 154 audiotapes (some officers submitted more than one) found relatively poor adherence to the RNR principles. For example, other than substance abuse and family/marital problems, most criminogenic needs were infrequently addressed. Procriminal attitudes were discussed in only 3% of cases. Furthermore, cognitive-behavioural techniques such as prosocial modeling and role playing along with practice were demonstrated in less than one-quarter of the sessions. These findings opened the door to training in better adherence to the RNR principles in one-on-one supervision.

To our knowledge, there has only been one evaluation of a training program that attempted to follow at least some of the RNR principles. Trotter (1996) provided a 5-day training course on prosocial modeling, empathy and problem-solving to a sample of 30 probation officers in Australia. After training, 12 probation officers continued to attend ongoing training sessions and used the new supervision model (as evidenced by case notes). Trotter (1996) then followed-up 93 clients of the officers who used the approach taught in training and compared their recidivism to 273 clients of officers who did not use the model. The 4-year reconviction rate was 53.8% for the clients of the officers who applied what they learned in training; the rate for the control clients was 64%.

The Present Study

The work of Trotter (1996) is encouraging and points to a need for further research on the training of probation officers. There are two improvements that can be made to advance the research agenda. First, on a conceptual level, training should include a combination of techniques for influencing change (i.e., general responsivity) and for targeting criminogenic needs. Trotter's (1996) focus was on training officers to be more empathic, act as prosocial models and to use problem-solving techniques; there was no training in the identification of criminogenic needs. Second, on a methodological level, more rigorous experimental evaluations should be instituted with random assignment and direct behavioural measurement (e.g., Trotter (1996) used a comparison sample of convenience and case notes to measure behaviour).

The present study tried to address the weaknesses in Trotter's (1996) work and to also take advantage of more recent research on the characteristics of effective correctional therapists and developments in the RNR model. For example, a meta-analysis of the effective interpersonal skills of correctional agents found that establishing rapport, modeling prosocial behaviour, differentially reinforcing prosocial behaviour, and self-management skills are important (Dowden & Andrews, 2004). Furthermore, attitudes are considered to be a major risk/need factor that underlies all the other criminogenic needs (Andrews & Bonta, 2010a). That is, underlying any criminogenic need, for example substance abuse, is an attitude supportive of the criminogenic need (e.g., "I need the drug to cope with my problems").

Incorporating advances in correctional research, a training program was developed and delivered to probation officers called the Strategic Training Initiative in Community Supervision (STICS). The STICS training consisted of two main components: the 3-day training and the ongoing skill maintenance. The 3-day training was based on 10 modules, which were designed to accomplish the following: explain the overview and rationale for STICS; emphasize the RNR principles and how to implement them into practice; highlight the importance of targeting attitudes, building rapport, using prosocial modeling, reinforcement and cognitive-behavioural techniques to influence change; and outline the benefits of using a strategic supervision structure in each individual session as well as over the entire supervision period. The ongoing skill maintenance component consisted of monthly meetings where officers could discuss

and practice their skills, formal clinical feedback on officer-client sessions, and a refresher course which took place approximately one year after the initial training.

This training protocol was guided by the RNR model in the following ways. First, the probation officers who volunteered for the project were asked to recruit medium and high risk clients (risk principle). Second, there were training modules attentive to the identification of criminogenic needs, with an emphasis on changing procriminal attitudes (need principle). Finally, probation officers were trained in various intervention techniques ranging from rapport building to cognitive restructuring (responsivity principle). The major method for measuring the probation officers' use of the skills taught was via audiotapes of supervision sessions. Audiotaping interpersonal interactions has been frequently applied in psychotherapeutic settings for the training and skill development of clinicians, but it is rarely used in correctional settings. Finally, the training program was evaluated in a randomly controlled trial. We expected that the training would change the behaviour of the probation officers with respect to greater adherence to the RNR principles and that this, in turn, would decrease the recidivism in their clients.

Method

Recruitment and Assignment of Probation Officers

Directors from three Canadian provinces (British Columbia, Saskatchewan and Prince Edward Island) asked for volunteers from staff who supervised adult offenders (age greater than 17 in Canada). The recruitment request explained the nature of the project (i.e., attend training in a new model of community supervision), the general research requirements (e.g., audiotaping supervision sessions, attending monthly clinical support meetings and teleconferences) and that staff would be randomly assigned to an experimental or a control group. Probation officers who volunteered for the study were also expected to submit an audio tape of a supervision session with one of their medium or high risk clients prior to group assignment.

Eighty probation officers volunteered for the study (55 out of a possible 268 from British Columbia, 15 of 129 from Saskatchewan and 10 of 15 from Prince Edward Island). The probation officers were assigned using a 60:40 ratio to either STICS training or to a control/no-training group. We over-sampled the experimental cases in order to have sufficient power for planned analyses specific to the trained officers. Subsequently, 51 probation officers attended the 3-day STICS training while 29 officers were assigned to the control group and attended a half-day workshop on the goal of the research and project requirements.

Even though the probation officers were all volunteers, 28 officers did not submit any post-training data. The attrition rate for the experimental and control groups was not significantly different (35.3% for the experimental group and 34.5% for the control group; $\chi^2(80, 1) = 0.005$; $p = .94$). The reasons for attrition were benign in 35.7% of the cases (e.g., job change, maternity leave, or extended leave) and for the remaining 64.3% of cases, data was not provided for various reasons (e.g., not enough time, too much work, clients refused to volunteer). No statistically significant differences between the two groups on the reasons for attrition were found. Finally, to ensure that there were no pre-existing differences between those officers who submitted post-training data and those who did not, we examined some demographic characteristics between participating officers and dropouts. No significant differences in age, years of experience, gender, or race were noted between participating officers and dropouts.

Recruitment of Clients

Each probation officer was asked to recruit two medium and four high risk clients. As a new case was assigned, the probationer was approached by the probation officer to participate in the research. The requirements for participation were described and, if the client agreed, a consent form was signed. One hundred and eighty-three clients indicated a willingness to participate in the study but clients were only considered active in the project when the first audiotape recording was submitted (usually within three months of commencing community supervision). Given a delay between the consent to participate and the first audiotape recording of the session, we were left with 143 active cases.

Data Collection Procedures

Seventy-eight of the 80 officers who volunteered for the study submitted a pre-training audiotape (two officers were unable to record a session due to difficulties in receiving a digital audio recorder prior to training). After group assignment, the probation officers were asked to recruit six new cases and audio tape their supervision sessions at three points during supervision (at the beginning of supervision, then three months and six months into supervision). In addition, probation officers provided client information on demographic and criminal history variables and the results from their jurisdiction's risk/need assessments.

In total, the 52 participating probation officers recruited 143 clients. One hundred clients were supervised by 33 STICS officers and 43 clients were supervised by 19 control group officers. Although each STICS probation officer recruited, on average, more clients (M = 3.03, SD = 1.70) than each control group officer (M = 2.26, SD = 1.63), this difference was not significant ($t(50) = 1.59$; $p = .119$).

The probation officers submitted 299 post-training audiotapes. However, four of the recorded sessions were dropped as the recordings abruptly stopped sometime between the first to 20th minute of the session due to technical problems with the recorder. Consequently, the audiotape analyses were based upon 295 audiotapes. There were 220 STICS sessions (98 Tape 1 or the beginning of supervision, 71 Tape 2 at three months, and 51 Tape 3 at six months) and 75 control sessions (42 Tape 1, 22 Tape 2, and 11 Tape 3). On average, the STICS officers submitted significantly ($t(50) = 2.43$; $p = .02$) more audiotapes (M = 6.76; SD = 4.35) than did the control officers (M = 4.00; SD = 3.09).

Integrity of the Random Assignment

The success of the random assignment was evaluated in two ways. First, personal demographics for both the probation officers and the probationers served to test the equality of groups. Second, we conducted a retrospective review of cases by selecting a random sample of four medium or high risk offenders under the supervision of the probation officers one year prior to entering the project. Not all of the probation officers were represented in this retrospective review as some probation officers were either not on staff or not in their present position at the time of the review. This resulted in a retrospective sample of 185 clients for which we could conduct a 2-year recidivism analysis and assess whether the two groups were equally effective in supervising probationers.

Analysis of the Audiotapes

The coding of the audiotapes focused on two general areas: 1) the content of discussions and 2) the quality and use of techniques of influence. Audiotapes were coded in 5-minute segments by a team of two trained coders. In order for a variable to be coded as present, there had to have been at least two examples to support the coding within the five minute segment (e.g., a casual reference to a criminogenic need would not be scored). Upon completion of the coding of the 5-minute segments, the coders would listen to the tape in its entirety and rate the session on measures of general quality (to be described later). The 5-minute segments and the tape in its entirety were coded independently by the two coders and then they reached a consensus coding that served as the basis for analysis. A random sample of 30 audiotapes was drawn for inter-rater reliability and coded by a separate team of two independent raters.

Discussion Content

There were two potential areas coded that we expected to be unrelated to criminal behaviour – discussions of the conditions of probation and noncriminogenic needs. In the STICS training, staff was encouraged to minimize the time they spent discussing these two areas and to pay more attention to the probationer's criminogenic needs (i.e., antisocial personality, antisocial peers, family/marital, employment/education, substance abuse, leisure/recreation and an emphasis on procriminal attitudes).

Discussions on the seven criminogenic need areas were only coded when that criminogenic need was identified for that client via his/her risk/need assessment. For example, if substance abuse was an identified criminogenic need for the client based on his/her risk/need assessment, and during the session the officer and client discussed substance use, this discussion was coded as an occurrence of talk on the

Substance Abuse need. However, if the same discussion on substance abuse took place with a client who did *not* have an identified substance abuse problem, then this discussion would be coded as talk on a noncriminogenic need. The only exception to this rule was for discussions on procriminal attitudes. Given the training's focus on targeting procriminal attitudes, each and every discussion on procriminal attitudes was coded regardless if the client's risk/need assessment indicated a problem.

The aforementioned areas of discussion were scored based on their frequency during a session. Specifically, coders rated their presence or absence for each 5-minute segment of a session. The score for each topic/need area was the total number of 5-minute segments in which that topic/need area was discussed. A score could range from a minimum of 0 where that topic was not discussed at all, to a maximum score that would depend on the length of the session. For example, a session lasting between 56 and 60 minutes would have a total of 12 5-minute segments with a maximum score for any topic/need area of 12.

In addition to a frequency analysis of the discussions, and because the length of a session varied, we also evaluated the proportion of the session segments during which the officer and client actually discussed that identified need or topic (the total number of 5-minute segments during which that identified need was discussed divided by the total number of 5-minute segments for the session). Proportions closer to 1 indicate that the topic was discussed throughout the session in each 5-minute segment, whereas proportions closer to 0 indicate that very little of the session was spent on that need.

Techniques of Influence

In order to assess the quality of the skills and intervention techniques used by officers in their sessions, coders rated 24 individual items assessing a variety of skills, intervention techniques, and behaviours exhibited by the probation officer (e.g., listening, giving feedback, reinforcement, giving homework, cognitive restructuring). Coders rated these items on an 8-point scale that ranged from 0 (absence of skill or technique) to 7 (very good use of skill or technique). These 24 items were then grouped a priori according to the RNR model into four constructs.

The first construct, *Structuring Skills*, included eight items that assessed a variety of structuring skills and activities that officers could employ during the session. Items included in this construct were the quality of the session "check-in" (i.e., checking for any crisis, exchanging social pleasantries, etc.), a review of the previous session, previous homework discussion and assigning future homework, global session structure, global direction of influence, intervention targets, and prioritizing needs. *Relationship Building Skills* were assessed with five items including the quality of role clarification, agreement on goals, active listening skills, effective feedback skills, and global positive relationship. The third construct was the use of *Behavioural Techniques* (seven items dealing with general and specific modeling, the effective use of reinforcement and disapproval, problem solving, self-management skills, and use of rehearsal strategies). The fourth construct was *Cognitive Techniques* (four items that evaluated the targeting of procriminal attitudes, the application of a behavioural model with the client, and two items assessing the components of cognitive restructuring). Finally, scores on all four constructs were added to measure global *Effective Correctional Skills.*

As these constructs were designed to measure the officer's skill level rather than session characteristics, the following strategy was used to aggregate the post-training data since probation officers submitted multiple samples of their behaviour with multiple clients. Guided by the general psychometric principle that observing multiple samples of a particular behaviour or skill reduces error variance and increases reliability, data was aggregated for each officer. For each officer an average score for each of the 24 items was computed regardless of the number of audiotapes that officer submitted. As a result, for some officers, assessment of their skill may be based on a single post-training audiotape (six officers submitted a single post-training audiotape) whereas for other officers, the assessment may be based on multiple audiotapes (e.g., one officer submitted 18 audiotapes in total). The score for each construct was calculated by summing average scores of the items for that specific scale.

Internal consistency was assessed using Cronbach's alpha on the 52 officers submitting post-training tapes. *Structuring Skills* (alpha = .81), *Relationship Building Skills* (alpha = .70), *Cognitive Techniques* (alpha = .76), and the overall *Effective Correctional Skills* (alpha = .89), demonstrated acceptable internal consistency. Only the *Behavioural Techniques* (alpha = .56) scale was below .70.

Given that the audiotape ratings were based on consensus ratings by two separate teams of two independent coders, it was not surprising to find high inter-rater results. Inter-rater reliability for all audiotape measures was assessed with intraclass correlation coefficients (ICC: single measure two-way random effects model with absolute agreement) and the percentage of agreement between teams that were within +/-1 point on a random sample of 30 audiotapes (approximately 10% of all post-training audiotapes). For the discussion content variables, the mean ICC was .980 (*SD* = .031) with a range of .909 to 1.0 (ICC could not be calculated for *Leisure/Recreation* and *Acute Needs* due to no variance). The average percent agreement within +/-1 was 99.3%. For the five general techniques of influence constructs, the mean ICC was .96 (*SD* = .03) with a range of .93 to .99.

Clinical Support

We were under no illusion that three days of training would be sufficient to change the behaviour of the probation officers in a meaningful way. Therefore, three procedures were introduced to ensure the maintenance and enhancement of skills following the initial training. First, the STICS probation officers met monthly in small groups of three to 12 officers to discuss their use of STICS concepts and skills. Prior to the meetings, the trainers provided themed exercises with audiotaped examples (e.g., one theme was how to teach the behavioural model to a client). As the probation officers worked through the exercises, a trainer was present via teleconference to provide clinical supervision. As the monthly meetings progressed, the researchers assessed the level of participation from the probation officers. They were rated on frequency of attendance and their level of participation (e.g., engaged in active discussion).

Second, all trained officers were encouraged to submit audiotapes for individual clinical feedback. The feedback focused on the officer's use of STICS concepts, skills and techniques with an emphasis on rewarding and encouraging their use. Thirdly, a 1-day refresher course was delivered approximately one year after the initial training.

Recidivism

Reconviction data was collected through the Royal Canadian Mounted Police's Criminal History Records. This is a national database of an offender's criminal history. There were two analyses of recidivism conducted. One set of analyses were based on a sample of clients selected from the probation officer's caseload prior to entering the project, hereafter referred to as the retrospective sample. For the retrospective sample, recidivism was defined as any new conviction within two years following assignment to supervision. After entering the project, a prospective sample was constructed consisting of new cases recruited by the officers. Recidivism was defined in the following two ways: 1) a fixed follow-up period defined as any new conviction within two years following the first audiotape, and 2) a variable follow-up of 2.3 years for a survival analysis. All recidivism information was recorded by a research assistant who was blind to group assignment.

Results

The Success of Random Assignment

The two groups of probation officers were compared on a variety of demographic characteristics. In addition, their scores on a paper-and-pencil knowledge test of the RNR principles and offender treatment literature, which was administered prior to training, were examined. No significant differences were found (Table 1). Similarly, analyses of the personal-demographic and criminal histories of the probationers revealed few significant differences between the clients of the experimental probation officers and the clients of the control officers (Table 2). An interesting difference between the probationer groups was in race, where the "Other" category (e.g., Asians, East Indians) were more frequent in the control group (χ^2 (2, N = 143) = 6.24; p = .044). Although we asked officers to recruit

only medium and high risk clients (comprising 95.1% of the sample, n = 136), seven low risk clients were recruited. Given that each jurisdiction used a different risk/need assessment instrument, we scored the 10 items of the Criminal History subcomponent of the LSI-R (Andrews & Bonta, 1995) from offender records to obtain a uniform measure of offender risk. Both groups were also equivalent in their risk level, as measured by the particular jurisdiction's assessment instrument, and by the criminal history subcomponent of the LSI-R. Scores on this subcomponent were predictive of 2-year recidivism rates in both the retrospective (r = .17, p = .019, n = 185) and the prospective (r = .37, p = .000, n = 112) analyses.

Table 1. Characteristics of STICS and Control Probation Officers

Characteristic	STICS	Control	*t* value or χ^2
Mean Age (*SD*)	38.2 (11.7) (*N* = 29)	38.4 (8.3) (*N* = 17)	*t*(44) = 0.06; *p* = .950
Mean Years Experience (*SD*)	9.9 (9.4) (*N* = 29)	9.1 (6.8) (*N* = 18)	*t*(45) = 0.31; *p* = .760
Gender (male)	30.3% (*n* = 33)	31.6% (*n* = 19)	χ^2(1,N = 52) = 0.01; *p* = .924
Race:	*N* = 29	*N* = 19	
Caucasian	79.3%	84.2%	
Aboriginal	6.9%	0.0%	χ^2(2,*N* = 48) = 1.38; *p* = .503
Other	13.8%	15.8%	
Knowledge of RNR and Treatment (*SD*)	5.6 (1.80) (*N* = 33)	6.3 (1.92) (*N* = 19)	*t*(50) = 1.28; *p* = .206

Note. N varies due to missing data. All *t* and χ^2 values nonsignificant.

Table 2. Characteristics of the STICS (N = 100) and the Control Probationers (N = 43).

Characteristic	STICS	Control	t value or χ^2
Mean Age (*SD*)	35.3 (11.5)	32.6 (9.31)	*t*(141) = 1.38; *p* = .170
Male Gender (%)	83.0	93.0	χ^2(1,*N* = 143) = 2.51; *p* = .113
Race (%)			χ^2(2,*N* = 143) = 6.24; *p* = .044
Caucasian	71.0	67.4	
Aboriginal	28.0	23.3	
Other	1.0	9.3	
Employed (%)	49.0	55.8	χ^2(1,*N* = 143) = 0.56; *p* = .455
Marital Status (%)			χ^2(2,*N* = 143) = 4.52; *p* = .104
Single	39.0	58.1	
Married /Common Law	35.0	25.6	
Separated/Divorced/Widow	26.0	16.3	
Violent Index Offence (%)	56.0	60.5	χ^2(1,*N* = 143) = 0.25; *p* = .621
Probation with Custody Term (%)	40	41.9	χ^2(1, *N* = 143) = 0.04; *p* = .835
Probation Length (months)	15.7 (*SD* = 7.34)	15.6 (*SD* = 6.68)	*t*(141) = 0.07; *p* = .944
Risk/Need Level (%)			χ^2(2, *N* = 143) = 0.58; *p* = .748
Low	4.0	7.0	
Medium	40.0	39.5	
High	56.0	53.5	
Mean LSI-R Criminal History Score	4.70 (*SD* = 2.56)	4.79 (*SD* = 2.71)	*t*(141) = 0.19; *p* = .849
2-year Retrospective Recidivism*	46.7% (*N* = 120)	41.5% (*N* = 65)	χ^2(185,1) = 0.45; *p* = .503

* There were 29 experimental and 17 control probation officers that yielded 185 clients due to the fact that some were not working one year prior to the project.

There was the possibility that the two groups differed in pre-training effectiveness. That is, one group may have consisted of probation officers who were already more effective in supervising their clients. To test for this possibility, a random sample of four medium/high risk clients per participating officer was selected from their caseloads one year prior to entering the project (retrospective sample). We then measured the 2-year recidivism data on these 185 clients. As displayed in Table 2, there were no statistically significant differences in the recidivism rates for the retrospective clients of the experimental and control probation officers.

The Content of Discussions

The average length of a session was approximately 26 minutes (*SD* = 11) with no significant difference between the STICS and control groups (26:45 minutes and 24:36 minutes respectively, $t(293) = 1.43$, $p = .15$). The variable *Proportion of Session* was the total number of 5-minute segments where an identified need was discussed divided by the total number of 5-minute segments of the session. Proportions closer to 1 indicate that the topic was discussed throughout the session in each 5-minute segment, whereas proportions closer to 0 indicate that very little of the session was spent on that need. In examining the post-training sessions, there were a number of significant between-group differences. First, the control group discussed the criminogenic need of employment/education more often than the STICS group. Second, the STICS group devoted more of their sessions to discussing procriminal attitudes, both when it was identified as a criminogenic need for that client and also when it was not identified.

Table 3. The Content of Discussions

Discussion Area	Proportion of Session		% Sessions Discussed	
	STICS	Control	STICS	Control
	M (SD)	*M (SD)*	*% (N)*	*% (N)*
Probation conditions	**.12 (.16)**	**.24 (.27)*** **	**41.8 (220)**	**56.0 (75)***
Noncriminogenic	**.31 (.26)**	**.43 (.31)****	79.5 (220)	82.7 (75)
Noncriminogenic & probation conditions	**.38 (.27)**	**.55 (.31)*** **		
Attitudes - All sessions	**.13 (.198)**	**.02 (.10)*** **	**39.1 (220)**	**6.7 (75)*** **
Attitudes - ID Only	**.16 (.23)**	**.06 (.15)***	**45.2 (84)**	**17.9 (28)****
Personality	.12 (.20)	.11 (.17)	37.2 (188)	36.5 (63)
Peers	.12 (.19)	.10 (.17)	40.6 (165)	35.1 (57)
Family/Marital	.23 (.26)	.19 (.26)	56.9 (144)	50.0 (40)
Employment/Education	**.16 (.23)**	**.26 (.26)****	**48.0 (148)**	**69.6 (46)****
Substance Abuse	.24 (.26)	.23 (.25)	63.7 (168)	61.2 (49)
Leisure/Recreation	.004 (.023)	.000 (.000)	2.6 (38)	0 (3)
Any Criminogenic	**.61 (.28)**	**.45 (.31)*** **		

* $p < .05$; ** $p < .01$; *** $p < .001$.

Additionally, the STICS sessions had a significantly ($t(293) = 4.22$; $p = .000$) higher proportion of their sessions spent discussing criminogenic needs ($M = 0.62$; $SD = 0.28$) with fewer discussions (0.38) on noncriminogenic needs and the conditions of probation ($t(293) = 4.57$; $p = .000$). In contrast, officer-client discussions during supervision sessions of the control group were contrary to the need principle. In other words, more of the session was devoted to noncriminogenic needs and the conditions of probation.

The variable, *% Sessions Discussed*, was a measure of the percentage of sessions where the probation officer and the client actually discussed that particular area. This was slightly different than the *Proportion of Session* measure in that any discussion on that need or topic, regardless of the length of

discussion, was counted. Consistent with the STICS model, the experimental group had significantly more discussions on attitudes regardless of whether attitudes was identified as a need ($t(110) = 2.64$; $p = .010$) or not ($t(293) = 5.50$; $p = .000$). Conversely, the control group officers demonstrated significantly more sessions discussing the conditions of probation and the criminogenic need area of employment/education ($t(192) = 2.59$; $p = .010$) .

Quality of Probation Officers' Skills and Intervention Techniques

Significant between-group differences were found on four of the five constructs (Table 4). Officers in the STICS group demonstrated significantly higher quality scores on *Structuring Skills*, *Relationship Building Skills*, *Cognitive Techniques*, as well as the global *Effective Correctional Skills*. Although the STICS officers demonstrated higher quality scores on *Behavioural Techniques* ($M = 10.23$) than the control officers ($M = 8.67$), this difference was not statistically significant ($t(50) = 1.89$; $p = .06$).

Table 4. Assessment of Probation Officer Skill Levels at Post-training

Skill	STICS ($N = 33$)	Control ($N = 19$)
	M (SD)	*M (SD)*
Structuring Session	**13.07 (5.59)****	**8.92 (3.69)**
Relationship Skills	**13.61 (2.64)****	**11.56 (2.21)**
Behavioural Techniques	10.23 (3.02)	8.67 (2.54)
Cognitive Techniques	**1.58 (2.21)****	**0.01 (0.03)**
Effective Correctional Skills	**38.49 (11.38)****	**29.16 (7.27)**

** indicates a significant difference at $p < .01$.

One of the primary training elements was to enhance the cognitive intervention techniques of probation officers so they may more effectively target procriminal attitudes and cognitions. Given its importance, we examined how many officers had at least one discussion on attitudes with any of their clients as well as how many officers employed *Cognitive Techniques* at least once in all of the audiotapes they submitted. There were significantly (χ^2 (1, $N = 52$) = 20.55; $p = .001$) more STICS officers (75.8% of 33 officers) who had at least one discussion with their clients on attitudes than control officers (10.5% of 19 officers). In fact, 69.7% of the STICS officers employed *Cognitive Techniques* at least once in all of the audiotapes they submitted, significantly more than the 5.3% of 19 control officers (χ^2 (1, $N = 52$) = 20.14; $p = .000$).

Recidivism

At post-training, 2-year recidivism differences emerged for the clients of the STICS probation officers and the control clients. For the probationers in the STICS group ($N = 75$) the recidivism rate was 25.3% (95% Confidence Interval = 15.5 to 35.1) and for the control clients ($N = 37$) the rate was 40.5% (95% Confidence Interval = 24.7 to 56.3; (χ^2 (1, 112) = 2.71, $p = .100$). A pre- and post-training difference in reconviction rates was also found. As presented in Table 2, the pre-training retrospective recidivism rates for the STICS group was 46.7% ($N = 120$) and at post-training it was 25.3% (χ^2 (1,195) = 8.88, $p = .003$).

Both age as well as the criminal history subcomponent of the LSI-R were predictive of recidivism. The predictive validity for the criminal history subcomponent has already been noted; for age the r was -0.07 ($p = .372$, $n = 185$) in the retrospective sample and $r = -.32$ ($p = .001$, $n = 112$) in the prospective sample ($r = -.16$ for the total sample; $N = 297$). Figure 1 shows the survival rates for the recidivism of the retrospective and the post-training groups controlling for age and criminal history (as measured by the LSI-R). The STICS probationers had the longest survival time compared to both the control probationers and the probationers in the retrospective analyses.

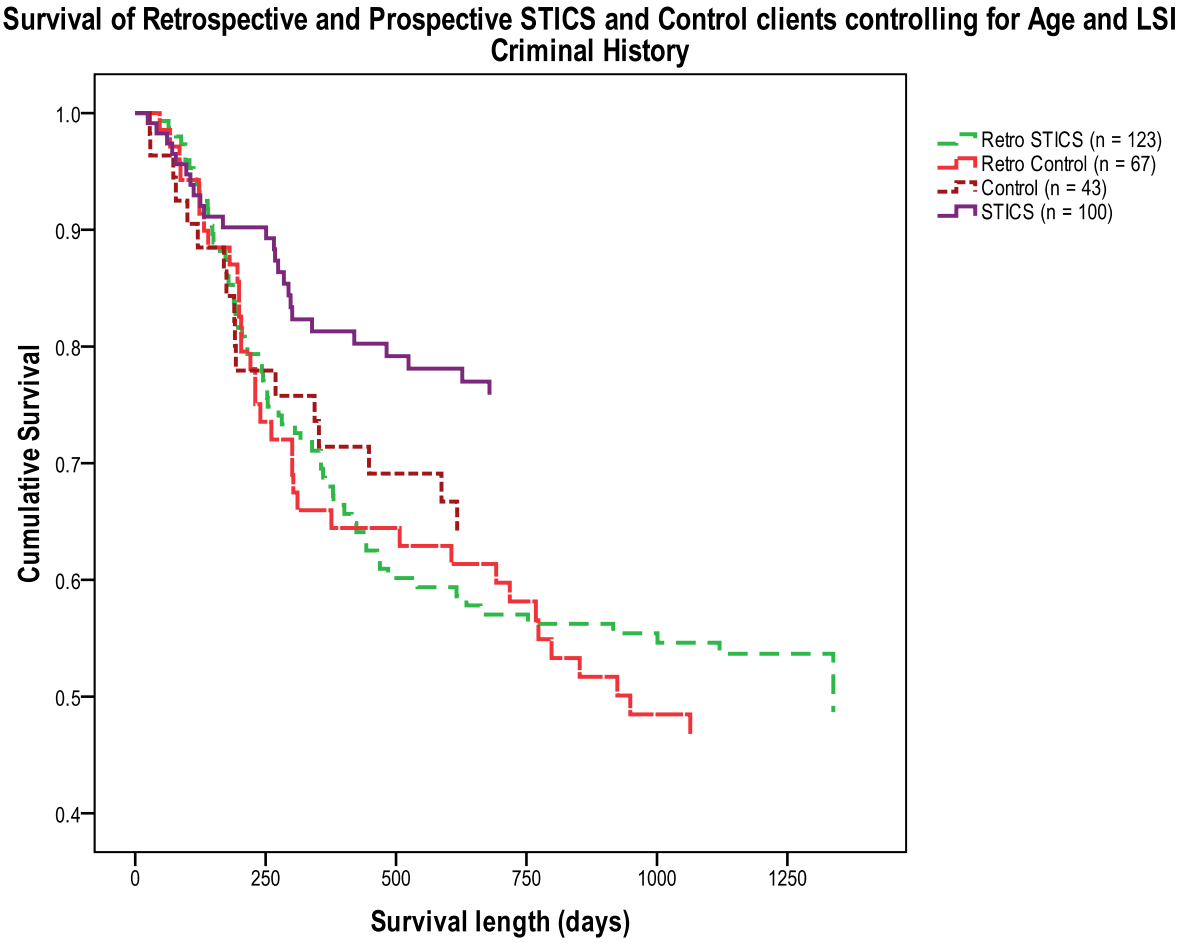
We examined two general areas of interest and their relationship with recidivism. First, given that the training emphasized the application of cognitive techniques to alter procriminal attitudes, we examined

the recidivism rates of clients as a function of the probation officers' use of cognitive techniques. Clients with some exposure to their officers' use of cognitive techniques (n = 42) had a recidivism rate of 19.0% versus a rate of 37.1% for probation officers that did not evidence any cognitive techniques ($\chi^2(1,112) = 4.07$, $p = .044$).

Next, we analyzed discussions of the conditions of probation in the first tapes (i.e., Tape 1) only in order to be consistent with the report by Bonta et al. (2004, 2008). The number of 5-minute audio taped segments devoted to the conditions of probation was positively associated with recidivism after controlling for session length and offender risk/need ($r = .25$, $p = .052$). We were restricted by the coding of the audio tapes in 5-minute segments and we used 15 minutes as a demarcation point. This significantly reduced our sample size for cases over 15 minutes (n = 14) and our statistical power, but the trend is informative. Sessions that had more than 15 minutes of discussions around probation conditions had higher recidivism for their clients than those discussions (n = 97) less than 15 minutes (50.0% vs. 27.8%; $\chi^2(1,111) = 2.83$, $p = .093$).

Turning to techniques of influence (e.g., relationship skills, structuring the session), only the use of cognitive techniques was predictive of recidivism once controls for offender risk were introduced (i.e., criminal history subcomponent of the LSI-R). Aggregating by probation officer, the Person-product correlation was -.25 (n = 109; $p = .009$).

Figure 1.



Clinical Support

Clinical support was provided through monthly meetings, individual feedback and refresher courses. The following three items were created to assess each officer's overall participation in the clinical support: *Monthly Meetings*, *Feedback*, and *Refresher Course*. Using a median split of monthly meeting attendance, officers were awarded 1 point for low attendance (five or less meetings) or 2 points for high attendance (six or more meetings). This was then multiplied by the participation ratings and the resulting product (ranging from 1 to 6) was dichotomized using a median split. For the item, *Feedback*, officers were awarded 2 points when they received feedback on two or more audiotapes, 1 point when they received feedback on one audiotape, and no points if they did not receive any feedback (n = 13). The third item, *Refresher Course*, provided officers with 1 point if they attended the refresher course and no points if they did not attend the refresher course. A global *On-Going Supervision* participation score was calculated by summing the three items described above (mean score of 2.7, SD = 1.5). For certain analyses, the officers were split into one of two groups based on the *On-Going Supervision* score. Officers with scores of 3 or less were categorized as the "low-participation" group and officers with scores of 4 or more were categorized as the "high-participation" group.

We assessed the officers' long-term skills and content of discussions by examining *only* those sessions that were recorded at least nine months after the initial 3-day training. A total of 76 audiotapes, submitted by 23 of the 33 STICS officers, met this criterion. Ten of the STICS officers submitted all of their data within nine months of training; therefore, their tapes were not included in this analysis. By aggregating all of the audiotapes that officers recorded 270 days or longer post-training, we could assess their behaviour after most of the ongoing clinical supervision was provided.

Our expectation was that higher participation in the clinical support process would be related to higher quality of officer skills and discussions with the clients. As presented in Table 5, each of the three clinical support items and the *Global On-Going Supervision* were positively correlated to *Cognitive Techniques*. Although not reaching the p = .05 level of statistical significance, *Structuring Skills*, *Behavioural Techniques*, and *Global RNR Skills* demonstrated a similar pattern. Only *Relationship Skills* did not follow this pattern, rather, this skill appeared to have a minimal and negative association with participation in the clinical support activities. In terms of discussion content, a similar pattern emerged showing that higher participation in the clinical support activities was positively correlated with the desired discussions (e.g., more discussions on procriminal attitudes and less time on noncriminogenic needs). Although not statistically significant, the *Session Ratio on Criminogenic Needs* showed the same pattern.

Table 5. Correlations of Long-Term Officer Skill and Discussion Content with Participation in Clinical Support (n = 23).

Skill	Monthly Meeting	Feedback	Refresher	On-Going Supervision
Structuring Skills	.23	.16	.25	.24
Relationship Skills	-.05	-.10	.05	-.06
Behavioural Techniques	.13	.27	.11	.22
Cognitive Techniques	.37*	.40*	.42**	.46**
Global RNR Skills	.24	.24	.28	.30
Proportion of Session				
Session Ratio: Procriminal Attitudes	.21	.36*	.28	.35*
Session Ratio: Criminogenic Needs	.24	.22	.31	.29
Session Ratio: Noncriminogenic Needs	-.45 **	-.48**	-.17	-.46**
Session Ratio: Probation	-.17	-.16	-.05	-.16

* p < .10; ** p < .05

As noted earlier, the STICS officers were divided into either a high-participation (scores higher than 4 on *Overall On-Going Supervision*; $n = 10$) or a low-participation (scores of 3 or less; $n = 13$) group. The overall results are shown in Table 6. The ANOVA results revealed significant between-group differences on *Cognitive Techniques* ($F(2,39) = 14.91$; $p < .001$), and *Global RNR Skills* ($F(2,39) = 4.71$; $p = .015$). With respect to the content of session discussions, significant differences were noted for all of the variables. In addition, we found that the recidivism rate of the clients of the high-participation group was 22% and 27.1% for the low-participation group.

Table 6. Skill and Discussion Content Comparisons for High-Participation (n = 10) and Low-Participation (n = 13) Groups

Skill	Participation Level	
	High	Low
	M (*SD*)	*M* (*SD*)
Structuring Skills	14.39 (6.57)	10.03 (7.31)
Relationship Skills	12.16 (1.92)	12.55 (1.55)
Behavioural Techniques	10.42 (1.99)	8.92 (2.88)
Cognitive Techniques*	3.73 (3.50)	0.69 (1.04)
Global RNR Skills*	40.70 (12.11)	32.19 (10.69)
Session Content		
Session Ratio: Procriminal Attitudes*	.231 (.19)	.105 (.13)
Session Ratio: Criminogenic Needs*	.644 (.18)	.594 (.25)
Session Ratio: Noncriminogenic Needs*	.187 (.11)	.371 (.33)
Session Ratio: Probation*	.068 (.05)	.127 (.16)

* ANOVA $p < .05$

Discussion

A large literature has emerged supporting the effectiveness of offender rehabilitation in reducing recidivism and the risk-need-responsivity (RNR) model has been influential in our understanding of "what works". Although the RNR principles have been applied in the development of group-based intervention programs, they have not been systematically used in the one-on-one supervision of offenders. For example, a study of probation officers in Manitoba found only moderate adherence to the RNR principles (Bonta et al., 2004, 2008). Although there has been some effort to train staff who supervise offenders in the community (e.g., Trotter, 1996), the application of the RNR principles has been partial and the evaluation of such training has not been rigorous. In this study, a more comprehensive approach to training probation officers to apply the RNR principles to their supervision of clients was developed and evaluated using a randomized experiment.

The Strategic Training Initiative in Community Supervision (STICS) model incorporates the key RNR principles into community supervision. It is the medium and high risk offenders who are best served by the initiative, where probation officers are taught cognitive-behavioural skills to address the procriminal and dysfunctional attitudes that underlie other criminogenic needs. In this study, probation officers were randomly assigned to either three days of training in the STICS model or to a control condition of services as usual. The probation officers were asked to audiotape some of their sessions with clients and the audiotapes were coded with respect to adherence to the need and responsivity principles. This study posed two questions: 1) did training change the behaviour of the probation officers, and 2) was there a difference in the future criminal behaviour of the clients of the these officers?

The Behaviour of the Probation Officers

The 52 probation officers who participated in the study provided 295 audiotapes on 143 clients. These audiotapes were analyzed according to the content of the discussions (with special attention to procriminal attitudes and criminogenic needs) and the use of various techniques to influence change. For the officers trained in the STICS model, increased adherence to the need principle was observed. The trained officers spent proportionately more of their supervision sessions (.61) discussing the criminogenic needs of their clients compared to the control officers (.45). When discussions around the seven individual criminogenic needs were examined, the trend favoured the experimental STICS group with the exception of employment/education. It is unclear as to why the control probation officers were more predisposed to attend to this criminogenic need than the STICS officers. In the Manitoba study (Bonta et al., 2004, 2008), 57.1% of the sessions targeted this need area, approximately mid-way between the findings in the present study (48% vs. 69.6% for the STICS and control officers respectively). It may be that the emphasis placed on procriminal attitudes in the training shifted the experimental group's focus away from the employment/education domain.

The STICS training's focus on procriminal attitudes appeared to have a significant impact on the behaviour of the STICS probation officers. Across all of the audiotaped sessions, discussions of procriminal attitudes were almost six times more likely to occur among the STICS officers than the control group (39.1% vs. 6.7%; Table 3). This high rate was likely a product of the training, which showed probation officers that attitudes affect the other criminogenic needs. Thus, if a client had a criminogenic need in the area of family/marital, then the trained probation officers were encouraged to address the attitudes that produce the problems in this area (e.g., instead of giving advice to walk away from an argument in order to permit time to calm down, what are the thoughts triggering anger and how can they be changed?).

These findings with respect to procriminal attitudes can be compared to those reported for the Manitoba probation officers by Bonta et al. (2004, 2008). In that study, attitudes when identified as problematic were discussed in only 8.8% of the supervision sessions. In the present study, the control probation officers discussed attitudes in 17.9% of sessions - a doubling in frequency. This may be good news in that probation officers are beginning to recognize the importance of procriminal attitudes. However, training can significantly enhance the attention probation officers give to this important criminogenic need. For the experimental probation officers, the rate of discussions of procriminal attitudes was 45.2%.

Also noteworthy was the differential attention paid to noncriminogenic needs and the conditions of probation. The control group spent a larger proportion of their sessions discussing noncriminogenic needs and the conditions of probation than the experimental group (.55 vs. .38 respectively). Given the general treatment literature and the RNR principles, such attention is counter-productive (Andrews, Zinger et al., 1990; Andrews & Bonta, 2010a, b). Although probation officers have a duty to enforce the conditions of the court and to deal with crisis and issues of a noncriminogenic nature, their time needs to be balanced with addressing the factors that are more directly related to criminal behaviour. Spending over half of their time on this topic area with a client, as the control officers demonstrated, leaves little time to deal with a probationer's criminogenic needs.

The extent to which various techniques of influence were used differentiated the trained STICS officers from the control probation officers. First of all, the trained officers had a more clearly defined structure to their individual sessions that followed the outline provided in training. This meant that their sessions had more of a teaching focus with relatively less time spent on irrelevant topics. The supervision sessions of the control staff showed less structure and focus. The STICS training had modules on relationship building and the application of cognitive techniques to change procriminal attitudes to prosocial attitudes. Analyses of the audiotapes found that the STICS officers showed better relationship skills and more use of cognitive techniques in addressing the client's criminogenic needs (Table 4).

The use of cognitive techniques, without specific training, was rare. Only one probation officer in the control group evidenced the use of a cognitive technique. Among the probation officers who attended

training, 23 officers (69.7%) used cognitive techniques. According to the responsivity principle, cognitive-behavioural interventions are associated with recidivism reductions and should be encouraged. However, probation officers require specific training on these skills as they do not occur naturally. The only technique that did not discriminate the two groups was the general skill of *Behavioural Techniques*. The reason for this may be that the scoring of this skill construct was heavily influenced by such behaviours as the use of reinforcement and encouragement; it also had the lowest internal consistency of the five intervention skills. In the study by Bonta and colleagues (2004, 2008) probation officers appear to demonstrate a high base rate of this type of behaviour (almost 95% of probation officers demonstrated such behaviour).

Clinical Support

After attending the three days of training, probation officers were given the opportunity to maintain and develop their skills through a number of mechanisms. They were encouraged to attend monthly meetings, a refresher course and receive individualized feedback on their audiotaped sessions. Not all officers took full advantage of this clinical support and the results demonstrated that participation in the clinical support activities was important.

Those officers who were more involved in the clinical support activities demonstrated more of the skills that were taught in training and also focused their discussions on matters of importance (i.e., criminogenic needs) more strategically. That is, clinical feedback and attendance in the refresher course was associated with skill enhancements. Similar findings have been reported in the training of motivational interviewing skills for staff working with substance abusing clients (Miller, Yahne, Moyers, Martinez & Pirritano, 2004), family interventions with high risk juvenile delinquents (Henggeler, Schoenwald, Borduin, Rowland & Cunningham, 2009) and general psychotherapists (Boswell & Castonguay, 2007).

The effects of the clinical support were most directly seen in the demonstration of cognitive-behavioural skills. Learning the importance of a cognitive-behavioural model and applying cognitive restructuring skills was undoubtedly the most difficult aspect for the probation officers. Attending three days of training is insufficient to learn these skills and clinical support is critical to develop them.

Client Recidivism

It is one thing to demonstrate that training can change the behaviour of the probation officers but it is important to also show that the trained officers may have an influence on the criminal behaviour of their clients. We found between-group differences in the 2-year reconviction rate with a 15% difference favouring the clients of the trained officers. However, perhaps because of the limited sample size, the Confidence Intervals did overlap. Nevertheless, the lower recidivism rate for the clients of probation officers trained in the STICS model appears meaningful for a number of reasons.

First, we found a decrease in the recidivism rates of clients pre- and post-training for the experimental group but no change for the control group clients (see Table 2). Second, a survival analysis, with controls for age and criminal history risk, differentiated the clients of the trained officers from the clients of the untrained officers. Third, the 15% decrease for the officers trained to more closely follow the RNR principles mirrors the findings from the general treatment “real world” literature. A meta-analysis of 11 studies that adhered to the RNR principles and that were conducted under everyday conditions found an average effect size of r = .15 which translates into a 15% reduction in recidivism (Andrews & Bonta, 2010a). Finally, those officers that showed high participation levels in the clinical supports offered had clients who recidivated 19% less than the clients of the control officers.

The training program delivered to the probation officers taught a variety of skills. The results suggest two possibilities that may link the officer behaviours to the criminal behaviour of the probationers. The first is the officer’s use of cognitive skills. Controlling for offender risk level, the use of cognitive techniques was associated with reduced recidivism (r = -.25). Given that only one officer in the control group showed the use of cognitive skills, the lower recidivism rate for the STICS group may have been influenced by the application of cognitive techniques.

The other officer behaviour that may have influenced recidivism was discussions around the conditions of probation. Here the influence was in the negative direction. The more that probation officers discussed the probation conditions, the higher the recidivism rate (r = .25). A similar finding was reported by Bonta et al. (2004, 2008). This finding is congruent with the general offender treatment literature and even the larger psychotherapy literature. Establishing a positive relationship between the helping professional and the client appears central to many theories of therapeutic change (Wampold, 2007). Consequently, a preoccupation with the conditions of probation, or the enforcement role of the probation officer, presents obstacles to the establishment of a positive relationship and may interfere with the offender's rehabilitation (Andrews & Bonta, 2010a, b; Trotter, 2006; Skeem, Eno Louden, Polaschek & Camp, 2007).

Summary and Conclusions

Training probation officers to better adhere to the RNR principles is feasible and has positive benefits. The STICS training and the clinical support offered thereafter demonstrated a change in both the behaviour of the officers and their clients. Considering the fact that the average length of a session was only 26 minutes, it was striking that a reduction in offender recidivism was observed.

Caution in generalizing the results from this study is, however, advised. There are two important considerations to bear in mind. First, the sample size was relatively small and attenuated the power of some of the statistical analyses. Second, the probation officers in the study were volunteers. It is unknown how effective the STICS model would be if introduced to staff who are perhaps more resistant to the model. However, it is our belief that the appropriate organizational and management support for STICS training would circumvent staff resistance.

Taken as a whole, the STICS training is the first experimental evaluation of a training program that follows the RNR principles. Staff practices that are considered to be important have been suggested by reviews of the literature (Dowden & Andrews, 2004) and elements of such "core correctional practice" have been evaluated in probation officer training (Trotter, 1996). However, there has not been a more comprehensive RNR training program until now. For those community probation officers and correctional agencies interested in "what works", the results of the present study provide promise and await replication.

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