

Corrections Research:
User Report

**Restorative Justice's
Impact on Participants'
Psychological and
Physical Health**

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Abstract

Research on restorative justice has cited many positive benefits for participants. For example, restorative justice processes are satisfying to both victims and offenders. However, despite references made to positive impacts on participants' well-being, few studies specifically examine the impact of restorative justice processes on participants' psychological health and physical health using specific health indicators. This study utilized a quasi-experimental, repeated-measures design to assess changes in psychological and physical health in 92 participants (50 victims and 42 offenders) who experienced a restorative justice process. Results indicated that the majority of participants did experience positive changes from pre-program to post-program. Future research directions and limitations are discussed.

Author's Note

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Introduction

In an effort to improve the current criminal justice system, address some of its imperfections, and view crime through a more humanizing lens, various groups are exploring restorative approaches to criminal justice. The goal of restorative justice (RJ) is to repair the harm caused by a crime while focusing on restoration in an attempt to facilitate healing for the victim, the offender and the community. RJ attempts to address the various needs of all participants by using a flexible, all-inclusive, and humanistic approach towards achieving justice through enablement, empowerment, and accountability.

The main objectives of the RJ approach include: holding the offender accountable in a meaningful way; repairing the harm caused to the victim, the offender and the community by the offence or behaviour; achieving a sense of healing for the victim and the community; and reintegrating the offender into the community and restoring him or her to a law-abiding life. Because RJ is a flexible process designed to meet the needs of everyone involved, restoration may involve almost anything, depending on the persons involved and the context of the situation. Restoration may occur in the areas of personal injury, property loss, re-establishing peaceful relationships, whereby returning a sense of security, dignity, justice and empowerment to victims and the community (Braithwaite, 1996).

RJ differs most clearly from the traditional retributive justice in that its view of crime and criminal behaviour is more focused on the injury to victims, communities, and offenders and the “big-picture” relationship between these three parties, rather than focusing primarily on the offender (Bazemore & Umbreit, 1994; Zehr, 1990). Accountability is encouraged by assisting the offender to understand the consequences of his or her actions, and enabling him or her to make amends by repairing the harm caused by the crime. To do so, RJ programs emphasize problem-solving techniques and cooperation, and use the community as both an indirect victim and a resource. Since the focus of RJ processes is on meeting the needs of everyone involved - the offender, the victims, and the community - most programs adopt an open, inclusive, and flexible approach towards addressing a wide range of issues (such as social issues, health issues, financial realities), experienced by both the perpetrator and the victim.

There is little debate over whether the goals of the RJ approach are worthwhile; however, criticisms and scepticism exist because RJ, especially within the Canadian criminal justice context is still a relatively new phenomenon. That said, research has begun and some conclusions can be made, but overall, more work needs to be done to determine the various outcomes and impacts that can result from RJ practices.

Restorative Justice Research

Most evaluations of RJ have focused on satisfaction of the clients (offender and victim) though more recent research has started exploring other successful outcome indicators such effects on re-victimization or reductions in offender recidivism. While these outcomes are important, researchers need to continue to explore an additional range of outcomes to determine if RJ is achieving its goals (e.g., healing relationships, restoring health, etc.). It is hoped that this paper will assist in this endeavour; however, before outlining the purpose of this study, a brief review of research to date is presented.

In general, research has found high satisfaction rates for both victims and offenders who participate in RJ compared to those who experience the traditional criminal justice system (Beven, Hall, Froyland, Steels, & Goulding, 2005; Bonta, Jessemann, Rugge, & Cormier, 2006; Bonta, Wallace-Capretta, Rooney, & McAnoy, 2002; Clairmont, 2005; Latimer, Dowden, & Muise, 2001, 2005; Rugge, Bonta, & Wallace-Capretta, 2005; Strang, 2002; Strang, Sherman, Angel, Woods, Bennett, Newbury-Birch, & Inkpen, 2006; Umbreit, 1994). Research has also found that such processes can have a strong impact on both victims and juvenile offenders in humanizing the system (Umbreit, 1994). These findings are not surprising given that it can be argued that the goals of the current criminal justice system are not comparable to those of RJ. As valuable as participant satisfaction is, however, it is important to note that some researchers have scrutinized the *sole* use of satisfaction rates in determining the success of RJ programs, as high levels of satisfaction do not necessarily indicate program effectiveness (Zehr, 1990). For

example, in order to evaluate program effectiveness, *all* program goals should be examined (e.g., reducing offender recidivism, increasing overall participant well-being), not only participant satisfaction. As a result, research has moved beyond examining only client satisfaction. For example, meta-analytic reviews (Bonta et al., 2002, 2006; Latimer et al., 2001, 2005) suggest that participation in RJ programs has moderate positive effects on victim satisfaction, offender satisfaction, reduced recidivism, as well as restitution and community service compliance.

Restorative Justice and Victims

Restorative justice empowers victims by providing them with the opportunity to actively participate in the crime resolution process. Victims control the type and degree of their involvement. As already stated, victims are certainly more satisfied with the RJ approach than the traditional criminal justice system (Beven et al., 2005; Bonta et al., 2002; Latimer et al., 2001, 2005; Rugge et al., 2005; Umbreit, 1994; Wemmers & Cyr, 2005). This may not be surprising given that the current system does not empower victims to the slightest degree (apart from being given the opportunity to prepare a victim impact statement; Sullivan, 2005).

Although there is some research on RJ's effect on victims, it does not extend much past the elements of satisfaction, perceived fairness and levels of fear. Umbreit (1994) reported on the healing effects of victim-offender mediation on victims and found that 90% of victims who participated in the restorative justice process were satisfied. He compared post-meeting results to pre-meeting results and found that victims were less upset about the crime and less fearful of the offender after the victim-offender meeting than before the meeting. Although no comparison group was utilized in this study, more recent results utilizing control groups show similar results.

Strang (2002) utilized a quasi-experimental design and compared victims who experienced RJ with victims who experienced the traditional court system. She found that victims who participated in conferencing were more satisfied than victims who experienced the traditional court process. This study also examined emotional restoration and found that victims who experienced the restorative approach were less angry and less fearful post-process than pre-process. The offender accepting responsibility was a key component of the process, and in cases where this did not occur, the victims were not satisfied but instead felt re-victimized. These findings stress the importance of offender screening and voluntary participation (Strang, 2002). Moreover, this study also adds evidence to the argument that the principles of effective correctional treatment¹ would be beneficial in the RJ context in order to better enable facilitators to assess offender readiness and appropriateness for a victim-offender meeting.

Angel (2005) conducted one of the first studies examining the effects of restorative justice conferences on victims' post-traumatic stress symptoms (PTSS) and found that victims who participated in conferences had reduced traumatic effects of crime. Specifically, victims who had met their offender(s) in a conference had lower PTSS scores following participation in the program than control participants (both immediately after the program, and 6 months later). Furthermore, the results indicated that not only did conferences reduce the traumatic effects of crime for victims but conference participation was found to be a predictor of lower PTSS six months following participation.

Wemmers and Cyr (2005) examined the relationship between RJ and recovery from victimization. Although their design was post-victim-offender meeting, victim well-being was assessed by questioning victims as to whether program participation helped them to put the incident "behind them". Results indicated that the majority of victims felt the program did help and that they "felt better" regarding their victimization after the victim-offender meeting. Victims were questioned as to their perceived benefits of

¹ For information on effective correctional treatment and principles and restorative justice, please see: Rugge, T. (2008). Restorative justice: What role can psychologists play? In G. Bourgon, R. K. Hanson, J.D., Pozzulo, K. Morton-Bourgon, & C. Tanasichuk (Eds.), *The Proceedings of the 2007 North American Correctional and Criminal Justice Psychology Conference* (pp. 175-178; User Report 2008-02). Ottawa: Public Safety Canada. See also: Bonta, J., Jesseman, R., Rugge, T., & Cormier, R. (2006). Restorative justice and recidivism: Promises made, promises kept? In D. Sullivan & L. Tift (Eds.), *Handbook of Restorative Justice: A Global Perspective* (pp. 108-120). New York, NY: Routledge.

participating in the process, and the majority reported psychological benefits and in some cases monetary benefits, in addition to the informational benefits. Unfortunately the authors did not expand on the “psychological” benefits so it is unclear as to the types of psychological benefits that may have resulted (e.g., reduction in fear levels, anxiety levels, etc.). Lastly, their results indicated that having “fair procedures” appears to be therapeutic for victims. Other research suggests that satisfaction and perceptions of fairness are closely related (Latimer et al., 2001; Ruge et al., 2005; Strang, 2002; Umbreit, 1994).

Strang and colleagues (Strang et al., 2006) retrospectively reviewed victim responses about their feelings before and after they met their offender. The authors examined the victim’s fear of the offender, anger at the offender, and sympathy for the offender. Victims indicated a reduced sense of fear and anger and an increase in sympathy after the face-to-face meeting. Their results add to the growing evidence that, at least in cases of face-to-face meetings between the victim and the offender, victims can derive substantial benefits (Angel, 2005; Ruge et al., 2005; Sherman, Strang, Angel, Woods, Barnes, Bennett, & Inkpen, 2005; Strang, 2002; Wemmers & Cyr, 2005).

The literature on the psychological effects of RJ on participants highlights the point that “psychological” has been interpreted diversely. For example, some researchers examine the change in victims’ trauma symptoms, decreases in fear, reduced desire of revenge, reduced self-blame, restoring identity and self-worth, while others explore elements of forgiveness and indicators that tap into aspects of possible re-victimization. While the various indicators may be similar across different types of RJ processes, they are also somewhat dependant on the type of RJ process. For example, expectations surrounding psychological health will differ when examining experiences in post-conflict justice. In reconciliation processes, truth and healing is not always possible, and often victims are not involved directly in the outcome decisions for the perpetrators.

In sum, further research is required to examine the types of psychological benefits that victims receive from RJ. For example, what indicators are present when one “feels better”? This study seeks to further explore this area.

Restorative Justice and Offenders

Turning to offenders, the majority of research has focused on the outcomes of satisfaction, compliance, and recidivism. As noted, and consistent with victims, offenders who experience RJ are more satisfied than offenders who are processed through the traditional criminal justice system (Bonta et al., 2002; Latimer et al., 2001; Ruge et al., 2005; Umbreit, 1994). A number of studies have also shown that participation in RJ processes results in reductions in recidivism. Two separate meta-analyses (Bonta et al., 2006; Latimer et al., 2001, 2005) found that participating in RJ resulted in a 7% reduction in offender recidivism. Bonta and colleagues (2006) also found that more recent studies (post-1995), studies with a high adherence to RJ principles and studies that incorporated a highly structured model, resulted in higher effects sizes (average 12% reduction in recidivism) and that RJ interventions appear to be more effective with low-risk offenders.

Little research has been conducted on the effects of RJ on offenders, beyond the outcomes of offender satisfaction, perceptions of fairness, and re-offending. Until very recently, no studies existed on the potential psychological benefits for offenders or its role in facilitating offender healing. St. Arnault (2009) examined optimism, self-efficacy, and hope in a study of 41 young offenders who participated in a RJ process and found that each variable significantly increased using a repeated-measures analysis. Jackson (2009) examined the development of guilt, shame and empathy amongst offenders who participated in a victim impact training program (though most would argue that this is a more distant form of RJ). Despite being exposed to victims describing the impact of a crime on their lives, Jackson found no offender changes on the three variables examined.

There has been substantially less research in the area of offenders and RJ when compared to victims. However, given the importance of offender reintegration, this research is definitely warranted. Although satisfaction, perceived fairness and reductions in offending are important, RJ may also offer other

advantages. RJ should be further explored as a viable option for assisting in the goal of offender reintegration, as it engages the community, the victim and the offender in collectively developing a reparation plan, with an eye to preventing future criminal activity and having the offender return to being a productive member of a prosocial and law-abiding community.

The Current Study

Restorative justice processes may affect many areas of an individual's life. One of the argued benefits of restorative justice is that it attempts to meet the needs of participants in order to help heal the psychological harm suffered, and ultimately makes everyone "feel better". One need just review the terminology used when describing the objectives of RJ: "*to repair the harm caused by crime*", "*healing relationships*", "*restoring health*", "*facilitating healing*", etc. These objectives or program outcomes are all linked to the participants' emotional wellbeing. Although participants are meant to "feel better" upon completion of a RJ process, what exactly does this mean? The purpose of this study is to examine this question in detail. Ultimately, the study aims to expand the knowledge base in the area of RJ and explore some of its impacts. Many programs praise the positive effects of RJ and the intrinsic value of bringing the offender and victim together, arguing that something almost "magical" occurs during this encounter. Research indicates that the majority of victims and offenders are "satisfied", but satisfaction is not an indication of the effects (psychological and physical) that the RJ process has on participants. The goal of this study was to examine two areas of well-being that contribute to an individual's overall "wellness" (i.e., physical and psychological health).

Crime affects everyone, especially those involved directly in a criminal incident. Victims experience increased stress as a consequence of crime and stress levels may be heightened further, for victims and offenders alike, as a result of traditional criminal justice and restorative processes such as face-to-face meetings between victim and offender. In turn, stress can affect an individual's physical and psychological health (Brown & Harris, 1978; Dohrenwend & Dohrenwend, 1974; Lazarus & Folkman, 1984; Segerstrom & Miller, 2005). There are a number of possible indicators of physical and psychological health. Indicators of poor physical health may include the more subtle such as nausea and increased muscle tension (Leahy, Pretty, & Tenenbaum, 2003) to the more severe such as endocrine dysfunction and cardiovascular disease (Rozanski, Blumenthal & Kaplan, 1999).

Not surprisingly, stressful events may impact psychological health. Research has shown that individuals who experienced criminal victimization may experience increased anxiety (Boney-McCoy & Finkelhor, 1996; Norris, Kaniasty, & Thompson, 1997), anger and hostility (Casarez-Levison, 1992; Leahy et al., 2003; Norris et al., 1997; Wemmers & Cyr, 2005), fear or phobias (Boney-McCoy & Finkelhor, 1996; Casarez-Levison, 1992; Mezy, 1998; Strang et al., 2006; Wemmers & Cyr, 2005), embarrassment (Casarez-Levison, 1992), depression (Mezy, 1988), grief (Casarez-Levison, 1992; Leahy et al., 2003), guilt and shame (Leahy et al., 2003; Mezy, 1988), and lowered self-esteem (Norris et al., 1997). Furthermore, victims also experience alienation, flashbacks and confusion (Leahy et al., 2003; Mezy, 1988) and even dissociation (Birmes, Carreras, Ducassé, Charlet, Warner, Lauque, & Schmitt, 2001).

Placing the psychological effects of victimization into the criminal justice context, victims advocates argue that the criminal justice or court experience adds to (or exacerbates) an already stressful situation for victims as they have no control in the process (Beven et al., 2005; Campbell & Raja, 1999; Sullivan, 2005; Wemmers & Cyr, 2005; Viano, 1978). This possible re-victimization by the system is often referred to as secondary victimization, which has been defined as the worsening of an already difficult situation (Hill, 2004). When victims find their contact with the system (e.g., contact with police) "helpful", they feel more connected to others (Norris et al., 1997), whereas when victims have a negative experience, there is an increase in posttraumatic stress symptoms (Campbell, Sefl, Barnes, Adrens, Wasco, & Zaragoza-Diesfeld, 1999). There are also some studies suggesting that participating in a RJ process may decrease victims' fear levels (Rugge et al., 2005; Strang, 2002; Strang et al., 2006; Umbreit, 1994; Wemmers & Cyr, 2005). Levine (2000) has argued that victim-offender mediation may be

therapeutic for victims as it provides them with a sense of participation and control over their lives and process – in short, RJ empowers victims. Furthermore, victims have cited that both receiving information about the case and meeting the offender is beneficial (Rugge et al., 2005; Strang, 2002; Strang et al., 2006; Umbreit, 1994; Wemmers & Cyr, 2005).

A third component of the current study examined how participant satisfaction was related to physical health and psychological health. Victims may identify different needs, offenders may make various offers of reparation, and ultimately, every case results in a unique resolution plan. Therefore, satisfaction with the process is often linked directly to the needs identified or reparations requested. It is possible that participant satisfaction may relate to other outcomes as well; for example, if a participant is not satisfied, then other beneficial outcomes (such as improved psychological health) may not be seen. Past research suggests that there is a positive association between consumer satisfaction with services and outcomes (Carlson & Gabriel, 2001; Lebow, 1982; Pandiani, Banks, & Schacht, 2001). Some (Braithwaite, 2002; Rugge et al., 2005; Rugge & Cormier, 2005) have suggested that a victim-offender meeting needs to occur for the process to be “true” restorative justice. Therefore, this study also examined whether satisfaction levels differed in participants who experience a victim-offender meeting compared to those who utilize a form of indirect mediation.

Method

Participants

The sample consisted of adults and youth who voluntarily agreed to participate in a RJ process, as well the additional evaluative component. All participants within the sample participated between April 2004 and April 2006 and were over the age of 12. Due to the small number of cases that are referred to RJ in Canada, cases were drawn from two different RJ programs running in the Ottawa, Ontario area. One program, hereafter called Program A, targeted cases of serious crime² and the other, Program B, addressed less serious cases.³ Both programs were involved in comprehensive program evaluations of their services. The present study drew on data gathered from their respective program evaluations to specifically examine physical and psychological health.

Materials

Information was drawn on the following categories: (1) demographic, (2) incident, (3) physical health, (4) psychological health (including fear and safety), (5) social support and relationships, and (6) RJ elements (e.g., satisfaction, program outcome, and the type of reparation activities that were completed). For victims, incident information pertained to victimization whereas for offenders these questions were replaced with questions focusing on remorse and guilt. Additional questions were also included for offenders in order to complete an offender risk assessment. A Level of Service instrument (LSI) was used for the risk assessment. For adults, the LSI-SV (Andrews & Bonta, 1998) was used and for youth the YLS/CMI-SV (Hoge & Andrews, 2002; 2004) was used. A mix of open-ended interviews⁴,

² Program A (The Collaborative Justice Project), in operation since 1998, addressed incidents of serious crime (e.g., robbery, assault causing bodily harm, impaired driving causing death, etc.) where the main focus was to address the harm caused and bring the affected parties together post guilty plea but before sentencing. Once a case was referred to the program (by the Crown, defence counsel, the judge, the victim, or the offender), three criteria had to be met in order for a case to be accepted: (1) the crime must be serious in nature, (2) at least one victim must be interested in receiving assistance from the program, and (3) the offender must be willing to accept responsibility (i.e., usually indicated by the offender entering a guilty plea) and to attempt to repair the harm caused by his or her criminal behaviour. Each case had at least one victim and one offender, but in some cases there were multiple victims or multiple offenders. Not all cases resulted in a victim-offender meeting within this program, as the goal was to meet the needs of the victim(s) and the offender(s) in whatever way they dictate.

³ Program B (The Lanark County Community Justice Project), dealt with less serious crimes and had a large number of young offenders. The criteria was not as formal as Program A's criteria, as they accepted almost all cases that were referred to them by the local police. The process involved a forum, or large circle, with all members affected by the incident present; efforts were made to involve the police and community members as well. In cases where the offender or the victim did not want to participate in a face-to-face forum, the case would not proceed as their process revolved around the forum.

⁴ The initial interview in the original program evaluation consisted of 87 items for victims or 107 items for offenders, administered by a researcher in a telephone interview. Questions were derived from a number of sources or developed by the research team in consultation with restorative justice practitioners. Many of the demographic, victimization, fear, and safety questions were extrapolated from the General Social Survey: Victimization (Statistics Canada, 1996).

questionnaires, as well as standardized instruments was used in a pre-post-test design. Lengthy interviews were conducted with victims and offenders at the beginning of the program and again at the conclusion of their participation.

There were many potential health indicators that could have been examined in the original program evaluations; however for practical reasons, the number was limited. For example, although standardized measures exist (e.g., the Psychological Well Being Scale, 84 items; Ryff, 1989), most of these measures consisted of numerous questions and took more time to complete than could be allocated. Therefore, decisions on which measures to use were based on the indicators that are typically examined in this type of research as well as discussions with program facilitators on the changes they see take place.

Physical health questions. A total of 18 questions pertaining to physical health were asked in the initial interview. A combination of open-ended, Likert scale and forced choice questions were used. Participant's were asked about their eating habits, sleeping habits, exercise, and substance use; areas that may have been affected by the criminal incident. There was often more than one question asked about one area, resulting in multiple indicators for one construct/variable. An 8-item Physical Health Checklist (PhC; see Appendix A) was completed based on the responses to the 18 questions in the interview.⁵ This Checklist provided a total score, based on the number of physical health problem areas that were indicated by the participant during the interview. Six of the PhC items were scored on a 3-point scale (0 = *no problem*, 1 = *some problem*, 2 = *major problem*) and two items were scored on a 2-point scale (0 = *no problem*, 1 = *some problem*, which was coded more as a "yes/no" item). Higher scores indicated a higher number of physical health problems.

Psychological health questions. Thirty-three questions were related to psychological health in the initial interview. Again, a combination of open-ended, Likert scale and forced choice questions were used. Interview questions pertained to feelings of safety, fear, and various other psychological health areas that may have been affected by the criminal incident. As with physical health, the number of psychological health indicators was compiled and summed in a Psychological Health Checklist (PsC; see Appendix B), which consisted of 17 items. Higher scores indicate more psychological health problems. Nine of PsC items were scored on a 3-point scale (0 = *no problem*, 1 = *some problem*, 2 = *major problem*) and eight items were scored on a 2-point scale (0 = *no problem*, 1 = *some problem*, again similar to a "yes/no" item). Again, there were several interview questions that tapped into the same construct. For example, there were several questions on feelings of safety; therefore, all responses were reviewed and considered when coding the "feelings of safety" Checklist item.

Procedure

At the commencement of every new case into the RJ program, each offender and victim who agreed to participate was asked by the facilitator for his or her voluntary participation in the research study. Typically, the program facilitator made first contact with a potential program participant over the phone. The program particulars were explained and if the individual was interested in learning more about the program, a meeting was arranged. Once the client agreed to participate in the program, the facilitator introduced the research component.

Facilitators explained the purpose of the study and clients were assured of confidentiality, specifically that none of the information shared with researchers would be shared with any program staff. Once consent was obtained, the facilitator notified the researchers who scheduled an interview with the client. The interview took approximately 45 to 60 minutes to complete, depending on the length of the participant's responses.

A RJ process could take weeks or months, depending on the design of the program in question, the seriousness of the crime, the extent of the harm caused to the victim, and potential delays or conflicts with the traditional court system. As a result, there was no expectation that the period of time between interviews would be consistent across participants. However, the study was designed for interviews to be

⁵ To review the 18 questions pertaining to physical health, or the 33 questions pertaining to psychological health, please refer to Ruge (2006).

conducted pre-program and post-program, regardless of the length in between. Facilitators were asked to inform researchers once the case was considered “closed” for the purposes of program, so that the post-program interview could be completed. A closed case typically meant that sentencing had occurred (or charges were withdrawn) and there was no more expected contact with the clients. The post-program interview took approximately 30 to 45 minutes to complete. Although the original intention was to conduct post-program interviews in person, due to feedback received during the pilot period over scheduling and participant preferences, the procedure was changed and all post-program interviews were completed over the telephone.

For the purposes of this study, the two health Checklists were completed on the information gathered from every interview. A total of 368 Checklists were completed (2 Checklists per interview, 184 interviews). Interrater processes were conducted on all 368 Checklists, consisting of 4,600 items, and interrater agreement was found to be 99.9%.

One of the potential limitations of this study was that there was no formal control group. A typical control group would consist of individuals who experienced the traditional criminal justice system rather than a RJ process, allowing for comparisons to be made across the two groups. The current study was designed to examine participant changes that were based within the restorative justice philosophy. The comparisons that are important therefore are those *within* the process (e.g., full restorative justice service, some restorative justice service, little restorative justice service), rather than a comparison *to* a non-restorative justice process.

Another potential concern was the use of data from two different programs. However, discussions with program staff, participants, and fellow researchers, suggested that many of the issues in RJ processes are similar. Although both programs approached RJ in a different way (e.g., large conference versus victim-driven/decided face-to-face victim-offender meeting or indirect communication), the main restorative goals of the two programs were the same, thereby allowing us to use data from the two samples. Furthermore, by incorporating one program that dealt with more serious crimes and another with less serious crime, we were able to make comparisons according to crime severity. The final aspect of the study design was that both victims and offenders were included. While victims and offenders are inherently different, they share some of the same issues and concerns within the RJ context. The goals of RJ pertain to victims, offenders and the community – *all* of those affected by a crime. Therefore, it was judged appropriate to include all participants who engaged in the restorative justice process.

Results

Sample Descriptives

Ninety-two participants (50 victims and 42 offenders) comprised the total sample, with 58 participants (32 victims and 26 offenders) from the program that dealt with more-serious cases (Program A) and 34 participants (18 victims and 16 offenders) from the program that dealt with less-serious cases (Program B). Slightly more than half (52%) were young offenders (i.e., age less than 18 years). The sample consisted mostly of males (72.8%, $n = 67$), with participants ranging in age from 13 years to 65 years of age (average age of 30.27 years; $SD = 15.01$). There was a significant difference in the average age between the victims and offenders with the majority of victims being in their late thirties and the majority of offenders being less than twenty years of age ($M = 39.2$ years, $SD = 6.5$, and $M = 19.7$ years, $SD = 14.4$, respectively; $t(90) = -8.60$, $p < .001$). Examining victims and offenders separately, there were significant differences between victims and offenders on level of education and employment. Significantly more victims were employed (70.0%) when compared to offenders (21%; $\chi^2(2, N = 92) = 23.09$, $p < .001$) and victims also had a significantly higher level of education ($\chi^2(2, N = 92) = .89$, $p < .001$). Almost all (96.7%) of the participants were Caucasian. Table 1 outlines the personal-demographic information of the participants in greater detail.

Table 1. Personal-Demographic Characteristics of Victims, Offenders and Total Sample

		Victim	Offender	Total	t / χ^2	
					Group	Program
		% (n)				
Age:	Under 18	8.0 (4)	45.2 (19)	25.0 (23)	-8.60***	
	18-29	16.0 (8)	47.6 (20)	30.4 (28)		
	30-39	20.0 (10)	4.8 (2)	13.0 (12)		
	40-49	30.0 (15)	2.4 (1)	17.4 (16)		
	50 and over	26.0 (13)	0.0 (0)	14.1 (13)		
Offender Status:	Adult	-	47.6 (20)	47.6 (20)	12.78***	
	Youth	-	52.4 (22)	52.4 (22)		
Gender:	Male	66.0 (33)	81.0 (34)	72.8 (67)		
	Female	34.0 (17)	19.0 (8)	27.2 (25)		
Race:	Caucasian	100.0 (50)	92.9 (39)	96.7 (89)		
	Aboriginal	0.0 (0)	2.4 (1)	1.1 (1)		
	Black	0.0 (0)	2.4 (1)	1.1 (1)		
	Other	0.0 (0)	2.4 (1)	1.1 (1)		
Education:	Less than grade 12	10.0 (5)	73.8 (31)	39.1 (36)	.89***	
	High School Diploma	8.0 (4)	7.1 (3)	7.6 (7)		
	College/University	82.0 (41)	19.0 (8)	53.3 (49)		
Employment:	Student	16.0 (8)	57.1 (24)	34.8 (32)	23.09***	
	Employed	70.0 (35)	21.4 (9)	47.8 (44)		
	Homemaker/Retired/Other	14.0 (7)	21.4 (9)	17.4 (16)		
Marital Status:	Single	26.0 (13)	90.5 (38)	55.4 (51)	-.88***	
	Married/Common Law	64.0 (32)	7.2 (3)	38.0 (35)		
	Separated/Divorced/Widow	10.0 (5)	2.4 (1)	6.5 (6)		

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

Seventy-one percent (70.7%) of participants participated in a victim-offender meeting, a circle, or a forum. In cases where there was no victim-offender meeting, it was because the victim was not interested in meeting with the offender, but was interested in pursuing non-meeting restorative options (e.g., receiving a letter of apology or indirect communication through the caseworker). Table 2 provides more details on criminal justice indicators for the samples. Overall, 50.0% of offenders ($n = 21$) were found to be low-risk. As expected, Program A had slightly more moderate-risk offenders and was the only program to have any high-risk offenders. Although the offender risk breakdown varied across programs, the differences were not statistically significant. There was also no difference on whether an offender had any previous convictions or on type of index offence ($\chi^2 (3, N = 42) = .51, p = .07$). Although not a significant difference, the Program A sample consisted of more crimes against the person (80.8%) than the sample from Program B (50.0%). Furthermore, the person-based crimes in Program A were more serious than the person-based crimes in Program B. Program A had crimes that included robbery and assaults causing bodily harm, whereas in Program B, the crimes against the person category consisted solely of common assaults.

Table 2. Type of Index Offence, Disposition and Offender Risk Level Characteristics

Characteristic		Program A <i>n</i> = 26	Program B <i>n</i> = 16	Total <i>N</i> = 42
		% (<i>n</i>)		
Offence Category:	Person	80.8 (21)	50.0 (8)	69.0 (29)
	Property	11.5 (3)	43.8 (7)	23.8 (10)
	Morals	0.0 (0)	6.3 (1)	2.4 (1)
	Driving	7.7 (2)	0.0 (0)	4.8 (2)
Type of Offence:	Robbery	15.4 (4)	0.0 (0)	9.5 (4)
	Assault CBH/Weapon/Aggravated	30.8 (8)	0.0 (0)	19.0 (8)
	Uttering threats	7.7 (2)	0.0 (0)	4.8 (2)
	Assault	15.4 (4)	43.8 (7)	26.2 (11)
	Impaired/Dangerous Driving/CBH/Death	7.7 (2)	0.0 (0)	4.8 (2)
	Property with Violence (classified as Person offence)	11.5 (3)	6.3 (1)	9.5 (4)
	Property	11.5 (3)	43.8 (7)	23.8 (10)
	Other	0.0 (0)	6.3 (1)	2.4 (1)
Disposition*:	Custody	0.0 (0)	0.0 (0)	0.0 (0)
	Conditional Sentence	34.6 (9)	0.0 (0)	21.4 (9)
	Suspended Sentence	11.5 (3)	0.0 (0)	7.1 (3)
	Probation	50.0 (13)	0.0 (0)	31.0 (13)
	Fine/Restitution	19.2 (5)	0.0 (0)	11.9 (5)
	Community Service	30.8 (8)	31.3 (5)	31.0 (13)
	Withdrawn	38.5 (10)	62.5 (10)	47.6 (20)
	Pending/Unknown	3.8 (1)	25.0 (4)	11.9 (5)
Risk Level:	Low (0-2)	50.0 (13)	50.0 (8)	50.0 (21)
	Moderate (3-5)	38.5 (10)	50.0 (8)	42.9 (18)
	High (6-8)	11.5 (3)	0.0 (0)	7.1 (3)
Previous Convictions:	7.7 (2)	0.0 (0)	4.8 (2)	

Note. *Categories are not mutually exclusive.

Program Characteristics

Despite many similarities between the two, the programs also differed on some aspects. First, as indicated earlier, Program B dealt with less serious crimes whereas Program A dealt with more serious crimes (as can be seen in Table 2). Second, the average time in the program differed, with the duration of Program A ($M = 114.64$ days, $SD = 71.34$) being longer than Program B ($M = 85.29$ days, $SD = 57.74$), though this difference was not statistically significant ($t(84) = 1.90$, $p = .06$). Overall (i.e., for both programs combined), the average time from starting the program to last contact was 105 days ($M = 105.08$, $SD = 68.32$), with a range from 13 days to 338 days.

There is often a long delay from the offence date to the time when the case comes to court, or is referred to a RJ program. While this was the case for Program A (as the serious cases were usually referred to the program from the courts), this was not the case for Program B. In the small community where this program operated, program staff worked closely with the police, and often cases were referred pre-charge, shortly after the offence occurred. The number of days from offence date to program start date averaged 40 days ($M = 40.13$, $SD = 24.55$) for Program B and 198 days ($M = 197.81$, $SD = 102.90$) for Program A ($t(32) = 7.18$, $p < .001$).

Physical Health and Psychological Health

Pre-program scores on both Checklists were strongly associated with their respective post-program scores (PhC: $r = .50, p < .001$; PsC: $r = .71, p < .001$). In addition, physical health (PhC) at pre-program was strongly correlated with psychological health (PsC) at both pre- and post-program ($r = .49, p < .001$; $r = .43, p < .001$; respectively). Physical health (PhC) at post-program was also correlated with psychological health (PsC) at pre- and post-program, but to a lesser degree.

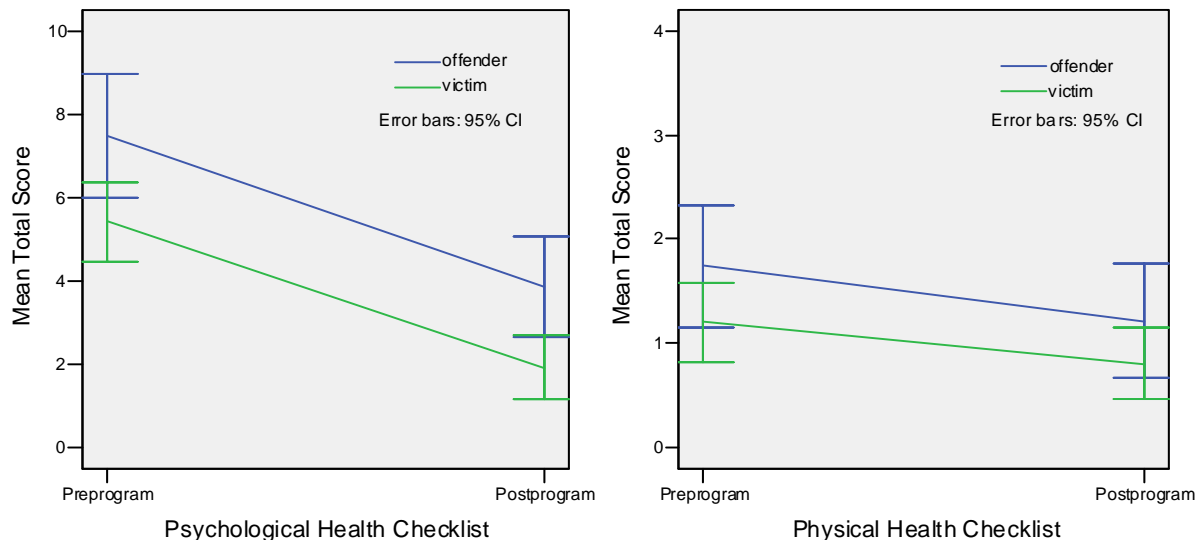
Table 3 outlines the differences on these two measures between victims and offenders, as well as differences from pre-program to post-program on the two measures. Figure 1 provides a visual depiction of change over time. Lower scores were apparent on both the PhC and the PsC at post-program. A repeated measures analysis was used to examine the differences over time (pre-post) and between groups (victim- offender). There was a significant main effect of time ($F(3, 88) = 42.67, p < .001$) and group ($F(3, 88) = 5.89, p < .001$), but no interaction effect between time and group. The differences over time were significant for both physical health ($F(1, 90) = 7.62, p < .01$) and psychological health ($F(1, 90) = 129.79, p < .001$).

Significant differences between victims and offenders were found for psychological health ($F(1, 90) = 7.97, p < .01$) but not for physical health ($F(1, 90) = 2.86, p = .094$). Offenders had a higher number of psychological health problems (i.e., higher scores on the PsC) than victims. The effect size for physical health (.03) is considered small-medium, therefore, it may be that the sample was not large enough to detect the differences between groups.

Table 3. PhC and PsC Scores from Pre-program to Post-program by Group

Measure	Pre-program	Post-program
Physical Health Checklist Scores (0-12)	<i>M(SD)</i>	<i>M(SD)</i>
Victims	1.20 (1.36)	0.80 (1.23)
Offenders	1.74 (1.86)	1.21 (1.77)
Total	1.45 (1.62)	0.99 (1.51)
Psychological Health Checklist Scores (0-26)		
Victims	5.42 (3.42)	1.90 (2.73)
Offenders	7.50 (4.83)	3.86 (3.87)
Total	6.37 (4.23)	2.79 (3.42)

Figure 1. Change Over Time by Group



A number of variables may have been related to the PhC and the PsC total scores. Therefore, ANOVA and t-test analyses were used to compare the total scores of the PhC and PsC across age, gender, offence type, offender risk level, as well as satisfaction and whether a victim-offender meeting occurred. Table 4 illustrates the results in detail. Participants who experienced a victim-offender meeting had significantly higher PsC scores at pre-program ($t(90) = -3.21, p < .01$) and at post-program ($t(90) = -3.16, p < .01$) than participants who did not experience a victim-offender meeting. There was no significant difference on the amount of psychological health change between the meeting and no-meeting groups ($t(90) = -.72, p = .48$). No other significant differences were found among the variables selected.

Table 4. Examination of Other Variables Potentially Relating to PhC and PsC

	PhC				PsC			
	Pre-program		Post-program		Pre-program		Post-program	
	<i>M(SD)</i>	<i>F/t</i>	<i>M(SD)</i>	<i>F/t</i>	<i>M(SD)</i>	<i>F/t</i>	<i>M(SD)</i>	<i>F/t</i>
Age		.36		.65		1.95		1.05
Under 18 ($n = 23$)	1.23 (1.32)		.70 (1.52)		5.52 (3.40)		2.39 (2.57)	
18-29 ($n = 28$)	1.64 (1.93)		1.00 (1.44)		7.64 (4.27)		3.57 (3.58)	
30 & over ($n = 41$)	1.41 (1.57)		1.15 (1.56)		5.98 (4.51)		2.49 (3.70)	
Gender		-1.14		-.97		-1.21		-1.25
Male ($n = 67$)	1.33 (1.68)		.90 (1.48)		6.04 (4.35)		2.52 (3.25)	
Female ($n = 25$)	1.76 (1.42)		1.24 (1.59)		7.24 (3.83)		3.52 (3.81)	
Offence Type		-.82		-.52		-1.84		-.31
Person ($n = 58$)	1.55 (1.66)		1.05 (1.69)		6.98 (4.24)		2.65 (3.36)	
Non-Person ($n = 34$)	1.26 (1.56)		.88 (1.15)		5.32 (4.06)		2.88 (3.15)	
Risk Level		-1.79		-1.14		-1.26		-2.26
Low ($n = 21$)	1.24 (1.51)		.90 (1.51)		6.57 (4.18)		2.57 (2.64)	
Med/High ($n = 21$)	2.24 (2.07)		1.52 (1.99)		8.43 (5.34)		5.14 (4.50)	
Satisfaction		-1.40		-.97		-1.59		.90
Less ($n = 20$)	1.00 (1.41)		.70 (1.53)		5.05 (2.87)		3.40 (3.62)	
More ($n = 72$)	1.57 (1.66)		1.07 (1.50)		6.74 (4.48)		2.63 (3.37)	
V-O Meeting		.15		-.65		-3.21**		-3.16**
Yes ($n = 62$)	1.46 (1.57)		.92 (1.36)		5.35 (3.30)		1.95 (2.50)	
No ($n = 27$)	1.41 (1.76)		1.15 (1.83)		8.81 (5.19)		4.81 (4.43)	

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

Physical health. As indicated earlier, there was a significant change in physical health from pre-program to post-program, as measured by the total score on the PhC ($F(1, 90) = 7.62, p < .01$); however, there were no significant differences between victims and offenders on total score. Table 5 provides the breakdown of Checklist items, by group, over time. Examining each item separately through the use of chi-square analyses, using the bonferroni correction to adjust for alpha ($\alpha = .05 \div 8 \text{ tests} = 0.00625$), a significant difference existed between victims and offenders on only one item, “illegal drug use”; this significant difference was present at the post-program ($\chi^2(2, N = 92) = -1.00, p < .01$), with offenders reporting more illegal drug use than victims. Regarding physical health, a significant positive change was expected from pre-program to post-program and this was found as evidenced by decreased scores on the PhC post-program. A repeated-measures analyses indicated that there was a significant change in the PhC scores ($F(1, 90) = 7.62, p < .01$) with lower scores at program completion.

Table 5. Presence of Physical Health Items by Group

Physical Health Checklist Item	Pre-program			Post-program		
	No Problem	Some Problem	Major Problem	No Problem	Some Problem	Major Problem
	% (n)			% (n)		
1. Sleeping						
Victims	66.0 (33)	4.0 (2)	30.0 (15)	80.0 (40)	2.0 (1)	18.0 (9)
Offenders	61.9 (26)	11.9 (5)	26.2 (11)	81.0 (34)	2.4 (1)	16.7 (7)
Total	64.1 (59)	7.6 (7)	28.3 (26)	80.4 (74)	2.2 (2)	17.4 (16)
2. Eating Habits						
Victims	94.0 (47)	6.0 (3)	-	96.0 (48)	4.0 (2)	-
Offenders	81.0 (34)	19.0 (8)	-	92.9 (39)	7.1 (3)	-
Total	88.0 (81)	12.0 (11)	-	94.6 (87)	5.4 (5)	-
3. Alcohol Use						
Victims	94.0 (47)	6.0 (3)	0.0 (0)	94.0 (47)	6.0 (3)	0.0 (0)
Offenders	90.5 (38)	9.5 (4)	0.0 (0)	85.7 (36)	9.5 (4)	4.8 (2)
Total	92.4 (85)	7.6 (7)	0.0 (0)	90.2 (83)	7.6 (7)	2.2 (2)
4. Prescribed Drug Use						
Victims	82.0 (41)	18.0 (9)	0.0 (0)	86.0 (43)	14.0 (7)	0.0 (0)
Offenders	73.8 (31)	21.4 (9)	4.8 (2)	85.7 (36)	14.3 (6)	0.0 (0)
Total	78.3 (72)	19.6 (18)	2.2 (2)	85.9 (79)	14.1 (13)	0.0 (0)
5. Illegal Drug Use						
Victims	94.0 (47)	6.0 (3)	0.0 (0)	100.0 (50)	0.0 (0)	0.0 (0)
Offenders	76.2 (32)	21.4 (9)	2.4 (1)	81.0 (34)	14.3 (6)	4.8 (2)
Total	85.9 (79)	13.0 (12)	1.1 (1)	91.3 (84)	6.5 (6)	2.2 (2)
6. Exercise						
Victims	86.0 (43)	14.0 (7)	-	86.0 (43)	14.0 (7)	-
Offenders	85.7 (36)	14.3 (6)	-	85.7 (36)	14.3 (6)	-
Total	85.9 (79)	14.1 (13)	-	85.9 (79)	14.1 (13)	-
7. Other						
Victims	92.0 (46)	8.0 (4)	0.0 (0)	98.0 (49)	2.0 (1)	0.0 (0)
Offenders	95.2 (40)	2.4 (1)	2.4 (1)	95.2 (40)	4.8 (2)	0.0 (0)
Total	93.5 (86)	5.4 (5)	1.1 (1)	96.7 (89)	3.3 (3)	0.0 (0)
8. Participant's Own Health Rating						
Victims	98.0 (49)	2.0 (1)	0.0 (0)	98.0 (49)	2.0 (1)	0.0 (0)
Offenders	100.0 (42)	0.0 (0)	0.0 (0)	97.6 (41)	2.4 (1)	0.0 (0)
Total	98.9 (91)	1.1 (1)	0.0 (0)	97.8 (90)	2.2 (2)	0.0 (0)

Physical health and satisfaction. Examining the relationship between satisfaction and physical health change, it was expected that participants who had a higher level of satisfaction would evidence a greater degree of positive physical health change from pre- to post-program. However, the correlation between the PhC change score and the level of satisfaction was not significant ($r = .08, p = .45$).

The satisfaction variable was collapsed into a categorical variable “less satisfied” (consisting of “not satisfied” and “somewhat satisfied” responses) and “more satisfied” (consisting of “satisfied” and “very satisfied” responses) and the PhC change variable was collapsed into “negative change”, “no change”, “positive change” and “positive change 4+” (scores of 4 or greater). A chi-square analysis (using gamma as there were cells with a count less than 5) was not significant ($\chi^2 (3, N = 92) = .18, p = .36$).

Physical health and type of crime. Regarding physical health change and type of crime, it was expected that participants who experienced a “more-serious” crime (defined as crime against the person) would have higher scores on the PhC at pre-program, and that these participants would also exhibit a greater degree of change from pre- to post-program. A t-test analysis was conducted using the PhC total score and the more/less-serious crime variable, and the result was nonsignificant ($t(90) = -.82, p = .42$). The analysis was rerun using the collapsed PhC score, and the result remained nonsignificant. Furthermore, participants who experienced a crime against the person did not exhibit a significantly greater degree of change when compared to participants who experienced a non-person-based crime ($t(90) = -.35, p = .73$). Once again, the analysis was run using the collapsed change variable (no change, positive change, etc.) and it remained nonsignificant.

Psychological health. Results presented earlier indicated that there was a significant change in psychological health from pre-program to post-program. Significant differences between victims and offenders were also found. Table 6 provides the breakdown of the Checklist items, by group, over time. Using chi-square analyses to examine each item separately, adjusting for alpha ($\alpha = .05 \div 17 \text{ tests} = 0.00294$), significant differences existed between victims and offenders at pre-program on the following four items: shame/guilt ($\chi^2(2, N = 92) = -.98, p < .001$), depression ($\chi^2(2, N = 92) = -.67, p < .01$), self-reliance ($\chi^2(1, N = 92) = 12.08, p < .001$), and self-esteem ($\chi^2(1, N = 92) = 10.70, p < .01$).

Offenders evidenced more problems with shame/guilt, depression, self-reliance, and self-esteem when compared to victims. At post-program, offenders continued to exhibit more problems with shame/guilt than victims ($\chi^2(1, N = 92) = 66.53, p < .001$). There were no other significant differences between victims and offenders at post-program on the various PsC items. The two programs were also compared and no significant differences were found. For psychological health change for offenders, a repeated-measures analysis indicated a significant change in the PsC scores, with higher scores exhibited at pre-program than post-program.

Table 6. Presence of Psychological Health Items by Group

Psychological Health Checklist Item	Pre-program			Post-program		
	No Problem	Some Problem	Major Problem	No Problem	Some Problem	Major Problem
1. Safety		% (n)			% (n)	
Victims	46.0 (23)	50.0 (25)	4.0 (2)	78.0 (39)	22.0 (11)	0.0 (0)
Offenders	73.8 (31)	26.2 (11)	0.0 (0)	90.5 (38)	9.5 (4)	0.0 (0)
Total	58.7 (54)	39.1 (36)	2.2 (2)	83.7 (77)	16.3 (15)	0.0 (0)
2. Fear						
Victims	44.0 (22)	48.0 (24)	8.0 (4)	74.0 (37)	24.0 (12)	2.0 (1)
Offenders	59.5 (25)	38.1 (16)	2.4 (1)	81.0 (34)	19.0 (8)	0.0 (0)
Total	51.1 (47)	43.5 (40)	5.4 (5)	77.2 (71)	21.7 (20)	1.1 (1)
3. Vulnerability						
Victims	54.0 (27)	46.0 (23)	-	96.0 (48)	4.0 (2)	-
Offenders	52.4 (22)	47.6 (20)	-	95.2 (40)	4.8 (2)	-
Total	53.3 (49)	46.7 (43)	-	95.7 (88)	4.3 (4)	-
4. Anger						
Victims	36.0 (18)	64.0 (32)	0.0 (0)	84.0 (42)	14.0 (7)	2.0 (1)
Offenders	38.1 (16)	61.9 (26)	0.0 (0)	78.6 (33)	19.0 (8)	2.4 (1)
Total	37.0 (34)	63.0 (58)	0.0 (0)	81.5 (75)	16.3 (15)	2.2 (2)

Psychological Health Checklist Item	Pre-program			Post-program		
	No Problem	Some Problem	Major Problem	No Problem	Some Problem	Major Problem
5. Shame/Guilt		% (n)			% (n)	
Victims	86.0 (43)	14.0 (7)	0.0 (0)	98.0 (49)	2.0 (1)	0.0 (0)
Offenders	7.1 (3)	90.5 (38)	2.4 (1)	14.3 (6)	85.7 (36)	0.0 (0)
Total	50.0 (46)	48.9 (45)	1.1 (1)	59.8 (55)	40.2 (37)	0.0 (0)
6. Depression						
Victims	86.0 (43)	14.0 (7)	0.0 (0)	92.0 (46)	8.0 (4)	0.0 (0)
Offenders	52.4 (22)	33.3 (14)	14.3 (6)	81.0 (34)	11.9 (5)	7.1 (3)
Total	70.7 (65)	22.8 (21)	6.5 (6)	87.0 (80)	9.8 (9)	3.3 (3)
7. Thoughts of Suicide						
Victims	98.0 (49)	2.0 (1)	-	100.0 (50)	0.0 (0)	-
Offenders	92.9 (39)	7.1 (3)	-	97.6 (41)	2.4 (1)	-
Total	95.7 (88)	4.3 (4)	-	98.9 (91)	1.1 (1)	-
8. Anxiousness/Stressed						
Victims	38.0 (19)	50.0 (25)	12.0 (6)	76.0 (38)	24.0 (12)	0.0 (0)
Offenders	31.0 (13)	52.4 (22)	16.7 (7)	59.5 (25)	33.3 (14)	7.1 (3)
Total	34.8 (32)	51.1 (47)	14.1 (13)	68.5 (63)	28.3 (26)	3.3 (3)
9. Hurt/Disappointment						
Victims	50.0 (25)	50.0 (25)	-	68.0 (34)	32.0 (16)	-
Offenders	73.8 (31)	26.2 (11)	-	85.7 (36)	14.3 (6)	-
Total	60.9 (56)	39.1 (36)	-	76.1 (70)	23.9 (22)	-
10. Upset/Confusion/Frustration						
Victims	38.0 (19)	62.0 (31)	0.0 (0)	88.0 (44)	12.0 (6)	0.0 (0)
Offenders	45.2 (19)	54.8 (23)	0.0 (0)	76.2 (32)	23.8 (10)	0.0 (0)
Total	41.3 (38)	58.7 (54)	0.0 (0)	82.6 (76)	17.4 (16)	0.0 (0)
11. Self-reliance						
Victims	82.0 (41)	18.0 (9)	-	86.0 (43)	14.0 (7)	-
Offenders	47.6 (20)	52.4 (22)	-	71.4 (30)	28.6 (12)	-
Total	66.3 (61)	33.7 (31)	-	79.3 (73)	20.7 (19)	-
12. Self-esteem						
Victims	92.0 (46)	8.0 (4)	-	96.0 (48)	4.0 (2)	-
Offenders	64.3 (27)	35.7 (15)	-	81.0 (34)	19.0 (8)	-
Total	79.3 (73)	20.7 (19)	-	89.1 (82)	10.9 (10)	-
13. Interfering Thoughts						
Victims	94.0 (47)	6.0 (3)	0.0 (0)	100.0 (50)	0.0 (0)	0.0 (0)
Offenders	61.9 (26)	38.1 (16)	0.0 (0)	90.5 (38)	9.5 (4)	0.0 (0)
Total	79.3 (73)	20.7 (19)	0.0 (0)	95.7 (88)	4.3 (4)	0.0 (0)
14. Counsellor						
Victims	92.0 (46)	8.0 (4)	-	96.0 (48)	4.0 (2)	-
Offenders	73.8 (31)	26.2 (11)	-	76.2 (32)	23.8 (10)	-
Total	83.7 (77)	16.3 (15)	-	87.0 (80)	13.0 (12)	-
15. Outlook						
Victims	90.0 (45)	10.0 (5)	0.0 (0)	90.0 (45)	10.0 (5)	0.0 (0)
Offenders	66.7 (28)	33.3 (14)	0.0 (0)	83.3 (35)	14.3 (6)	2.4 (1)
Total	79.3 (73)	20.7 (19)	0.0 (0)	87.0 (80)	12.0 (11)	1.1 (1)

Psychological Health Checklist Item	Pre-program			Post-program		
	No Problem	Some Problem	Major Problem	No Problem	Some Problem	Major Problem
16. Other	% (n)			% (n)		
Victims	56.0 (28)	44.0 (22)	0.0 (0)	92.0 (46)	8.0 (4)	0.0 (0)
Offenders	54.8 (23)	38.1 (16)	7.1 (3)	73.8 (31)	23.8 (10)	2.4 (1)
Total	55.4 (51)	41.3 (38)	3.3 (3)	83.7 (77)	15.2 (14)	1.1 (1)
17. Participant's Own Psychological Health Rating						
Victims	100.0 (50)	0.0 (0)	0.0 (0)	100.0 (50)	0.0 (0)	0.0 (0)
Offenders	97.6 (41)	2.4 (1)	0.0 (0)	97.6 (41)	2.4 (1)	0.0 (0)
Total	98.9 (91)	1.1 (1)	0.0 (0)	98.9 (91)	1.1 (1)	0.0 (0)

Psychological health and satisfaction. It was expected that participants who had a higher level of satisfaction would exhibit a greater degree of positive PsC change from pre- to post-program. Using the same procedure as when testing the related physical health hypothesis, a correlation was first run on the full satisfaction variable and the total PsC change score. The correlation between the two variables was significant ($r = .31, p < .01$). A chi-square analysis was used on the collapsed categorical variables (less/more satisfied and negative/no/positive/positive4+ change), and these results were also significant ($\chi^2 (3, N = 92) = .59, p < .01$). As hypothesized, participants who were more satisfied exhibited more positive psychological health change. Table 7 outlines these results in detail.

Psychological health and type of crime. It was predicted that participants who experienced a crime against the person (i.e., a “more serious” crime) would exhibit higher PsC scores at the commencement of the RJ process than participants who experienced a less serious crime. The result of the t-test analysis using the pre-program PsC total score and the more/less-serious crime variable was nonsignificant ($t (90) = -1.84, p = .07$). Furthermore, participants who experienced a crime against the person did not exhibit a significantly greater degree of psychological change when compared to participants who experienced a non-person-based crime ($t (90) = -.35, p = .73$).

Table 7. Satisfaction Categories by Categories of Psychological Change

	Satisfaction		
	Less Satisfied	More Satisfied	Total
	% (n)		
Positive Change (4+)	20.0 (4)	45.8 (33)	40.2 (37)
Positive Change (1-3)	40.0 (8)	45.8 (33)	44.6 (41)
No Change	25.0 (5)	6.9 (5)	10.9 (10)
Negative Change	15.0 (3)	1.4 (1)	4.3 (4)

Offender Risk Level

It was hypothesized that higher offender risk levels would be associated with lower satisfaction levels, for both victims and offenders. To test this relationship, a correlation was run between offender risk level scores and satisfaction scores. The Pearson correlation coefficient was not significant ($r = -.10, p = .38$). A chi-square analysis was conducted using the 2-level satisfaction variable (less and more) and risk level (low, medium, high) and the result was nonsignificant ($\chi^2 (2, N = 79) = -.10, p = .68$). To further examine this, two risk groups were created: a low-risk offender group and a second group that combined the medium-risk and the high-risk offenders. These two groups were compared on satisfaction (less/more) to

determine whether there were differences between the two groups. No significant differences were found using this technique either ($\chi^2 (1, N = 79) = .31, p = .39$).

Victim-Offender Meeting

Based on research to date, it was expected that participants who experienced a victim-offender meeting would experience a higher degree of overall health change than participants who did not experience a meeting. To test this hypothesis, a t-test analysis was used to compare the mean overall health change scores between the two groups (no meeting and meeting). There was no significant difference between the two groups ($t (90) = -.38, p = .71$). In fact, although not significant, there was more change in the group that did *not* experience a meeting ($M = 4.26, SD = 4.63$ versus $M = 3.94, SD = 3.27$).

A second hypothesis predicted that there would be no statistically significant differences on satisfaction between participants who experienced a victim-offender meeting and those who did not. To test this hypothesis, a chi-square analysis was used to compare the two groups on satisfaction (less/more). As predicted, no statistically significant differences were found ($\chi^2 (1, N = 92) = 1.08, p = .23$). The analysis was run separately for victims and offenders. While there remained no statistically significant relationship between satisfaction and meeting for victims, the relationship became significant for offenders ($\chi^2 (1, N = 42) = 1.00, p < .01$). Table 8 shows the results in greater detail. As the results demonstrate, offenders who did not experience a meeting were more satisfied than those that did experience a meeting, whereas the opposite was true for victims.

Table 8. Satisfaction Categories by Victim-Offender Meeting by Group

		Satisfaction		
		Less Satisfied	More Satisfied	Total
		% (n)		
Victims	No V-O meeting	33.3 (4)	66.7 (8)	100.0 (12)
	V-O meeting	18.4 (7)	81.6 (31)	100.0 (38)
Offenders	No V-O meeting	0.0 (0)	100.0 (15)	100.0 (15)
	V-O meeting	33.3 (9)	66.7 (18)	100.0 (27)
Total	No V-O meeting	14.8 (4)	85.2 (23)	100.0 (27)
	V-O meeting	24.6 (16)	75.4 (49)	100.0 (65)

Discussion

The main goal of this study was to examine the effects of RJ processes on participants' physical health and psychological health. The research to date has suggested that RJ processes may have positive impacts on a participant's health (Angel, 2005; Beven et al., 2005; Bonta et al., 2002; Latimer et al., 2001; Rugge et al., 2005; Strang, 2002; Strang et al., 2006; Umbreit, 1994; Wemmers & Cyr, 2005). Studies in this area have referred to positive effects on wellbeing, psychological health, and victim fear levels (Strang et al., 2006; Wemmers & Cyr, 2005), but few studies have examined specific areas within psychological or physical health. Although this study is somewhat exploratory in nature, with several limitations, the study did contribute to our understanding of this area.

Psychological Health

First, the results showed that there were positive changes in participants' psychological health from program commencement to program completion. In this regard, these findings are consistent with past research (Angel, 2005; Rugge et al., 2005; Strang, 2002; Strang et al., 2006; Umbreit, 1994; Wemmers & Cyr, 2005). This study extended the available research by examining over a dozen specific psychological health items (e.g., anger, fear, shame/guilt, depression, etc.) – all indicators where RJ facilitators had

reported changes in past clientele. Decreases were noted on all these variables and when the various items were summed through the Psychological Health Checklist (PsC), decreases in score from pre-program to post-program were noted for 84.8% ($n = 78$) of participants. Eleven percent (10.9%; $n = 10$) of participants exhibited no change from pre-program to post-program; however, it should be noted that these participants all had low scores at commencement (meaning few problems). Specifically, 90% ($n = 9$) of the no-change group had scores of five or less and 50% ($n = 5$) had scores of one or less. In addition, there were no significant differences between victims and offenders – they both exhibited positive changes over the course of the program.

Interestingly, a significant difference was found between participants who experienced a victim-offender meeting and those who did not, with meeting participants scoring lower on the PsC at both pre-program and post-program. It could be that participants who experienced a higher degree of psychological health symptoms (e.g., upset) did not want to add the potential stress or anxiousness associated with a meeting. RJ proponents would argue that it is precisely these participants who would benefit the most from an encounter. Participants who experienced a victim-offender meeting were compared to those who did not, and there were no significant differences in psychological health change.

One of the indicators in the psychological health checklist was “anger”. This item revealed some interesting results. Although there was a general decrease in “anger” over time, there were some participants who increased from pre-program to post-program. The numbers were few ($n = 2$), but it is possible that if a participant does not achieve a satisfying result from the program, some may indicate more anger at the post-program stage. Although not the case in this study, it is possible that sentencing (e.g., a harsher sentence than expected) could increase an offender’s anger level, and it is possible that if the process does not meet the victims’ expectations and needs, they may feel anger at program completion. Lastly, there are cases that are referred to RJ programs that do not fit nicely into the victim/offender mould. In cases of bar fights, or other assaults, police charging practices do not necessarily reflect the degree of responsibility of both parties. For example, the “victim” may be the victim because s/he called the police first or, despite starting the fight, may have received more injuries. The RJ process attempts to uncover the truth, encouraging all parties to take responsibility for their actions. These cases are particularly challenging for RJ facilitators.

Curiously, participants were also asked specifically to provide a rating on their own overall psychological health, and in almost all cases (98.9%), they indicated there was “no problem”, a rating that was consistent at pre-program and post-program. In essence, participants never felt that they had any problems with their psychological health. However, when asked questions pertaining to the specific indicators, participants rated them differently indicating that there were “problems” in some areas. Although there are certainly other potential indicators of psychological health, the results of this study suggest that the indicators examined were appropriate and affected by the RJ process, at least to some degree. The question still remains as to how large a role the RJ process is playing in this change.

Physical Health

Although the issue of physical health has come up less often in RJ research, it would follow that physical health may also be affected by the crime. Considerable research has accumulated showing that both psychological and physical effects may result from negative or stressful incidents (such as a criminal incident; Angel, 2005; Birmes et al., 2001; Koss, Koss, & Woodruff, 1991; Leahy et al., 2003; Markesteyn, 1992; Mezy, 1988; Norris et al., 1997). Studies have referred to lack of sleep and substance use reported by RJ participants but the term “physical health” as not been formally used. This study specifically examined some indicators of physical health that could be affected by the RJ process (e.g., sleeping, eating, alcohol use, drug use, etc.).

The results indicated that there were positive changes in participants’ physical health, as measured by the indicators, from pre-program to post-program. Although there were fewer indicators pertaining to physical health (6 items compared to 15 items for psychological health), over forty percent (41.3%, $n = 38$) of participants exhibited no physical health indicators at pre-program, and this increased to 56.5% (n

= 52) at post-program. It was therefore not surprising that 45.7% ($n = 42$) of participants did not exhibit any change in the physical health indicators from pre-program to post-program, though 36.9% ($n = 34$) did exhibit positive change (i.e., a decrease in number of indicators as reflected by a decrease in PhC total score).

Victims and offenders were compared on the various physical health indicators. We found that there was a significant difference between victims and offenders on only one item, “illegal drug use”. This was not a surprising result. Interestingly, one offender increased the level of alcohol and drug use from pre-program to post-program. While this result pertained to only one offender, and it may be a spontaneous, unrelated change, it would not be unexpected to see this type of result again. Past research has found that offenders describe the RJ process as very difficult, with the meeting being the most difficult part (Rugge et al., 2005). It is possible that the increase is reflective of a coping mechanism for these offenders. Overall, for the 58.7% ($n = 54$) of participants who exhibited at least one physical health problem at pre-program, 63.0% ($n = 34$) exhibited a positive change and 20.4% ($n = 11$) exhibited no change in the number of physical health symptoms from pre-program to post-program.

Participant Satisfaction, Victim-Offender Meetings, Offence Type and Offender Risk Level

Previous research has found that there is a positive association between consumer satisfaction with services and outcomes (Carlson & Gabriel, 2001; Lebow, 1982; Pandiani et al., 2001). Therefore, it was hypothesized that in order to derive optimal benefits from the RJ process, participants need to feel satisfied. Results indicated that participant satisfaction was associated with changes in physical health and psychological health; participants who were more satisfied had a greater degree of positive change. These results support previous research that suggests that participant satisfaction is needed in order for optimal outcomes/benefits to occur (Carlson & Gabriel, 2001; Lebow, 1982; Pandiani et al., 2001).

As reviewed earlier, some studies have also suggested that a victim-offender meeting may result in a “richer” experience (Braithwaite, 2002), and that satisfaction levels may vary depending on the type of RJ process that participants experience. This study examined this issue in two ways. First, satisfaction levels were compared for participants who experienced a victim-offender meeting with those who did not. No significant differences were found for victims; however, a significant difference was found for offenders. Specifically, offenders were more satisfied if they did *not* experience a meeting and, although not significant, victim responses suggested that the opposite was true. These results are intriguing but may be explained by the following.

Rugge and colleagues (2005) have found that both offenders and victims cite the meeting as one of the most difficult, but also one of the most rewarding, aspects of the RJ process. While the meeting may be difficult for both parties, offenders may find it particularly challenging to meet face-to-face with their victim(s), admit guilt, apologize, take responsibility, and attempt to repair the harm they caused. Offenders may feel obligated to agree to meet the victims to be accepted into a RJ process, whereas victims are often provided with a choice. Therefore, an offender may feel relieved, and thereby satisfied, if they do not have to go through with the meeting, but can respond to victim requests in an alternative manner. For victims, while the meeting may be emotionally draining, they get to “see” the remorse, hear the apology in person, communicate directly to the offender the impact the crime had on them, and express the reparative actions they would like to receive from the offender. This process, however, can also be very satisfying.

Second, the importance of the victim-offender meeting was also examined in relation to changes in participant health. If it holds that the RJ process is more beneficial and richer if there is a meeting (and this is still debated), it may be that the presence of a meeting may result in higher levels of health change for participants who experienced a meeting when compared to those who did not. This was not the case in this study. Rather, the results suggest that a meeting does *not* need to occur in order for participants to be satisfied, or for them to receive positive benefits from the RJ process. This finding may seem at odds with previously mentioned evidence that victims can derive substantial benefits from a face-to-face victim-offender meeting. However, it is simply possible that had participants decided to participate in a

meeting, they would have been *more* satisfied and reaped additional benefits from those expressed. One thing is clear: researchers need to continue to examine the impacts of victim-offender meetings.

It was hypothesized that offence type might play a role in satisfaction levels as well as the number of symptoms exhibited by participants. While it was expected that participants who experienced a crime against the person might be different from those who experienced a less-serious crime (e.g., property crime), this was not the case in this study. There were no differences between participants who experienced a crime against the person and those who did not in regards to changes in physical health or psychological health.

Linking closely with offence type, offender risk level was also taken into consideration, in terms of health change and satisfaction. The findings showed that neither offence type, nor offender risk level were related to health and satisfaction. Consistent with past RJ research (Bonta et al., 2006), the majority of the offenders in this sample were found to be low-risk. This suggests that low-risk offenders may be more interested in participating in RJ processes. In the case of Program A that dealt with serious crime, it suggests that an offender who commits a serious crime is not necessarily a high-risk offender.⁶

Limitations

While there are a number of interesting and important findings in this study, there were some limitations. First and foremost was the absence of a formal control group. The purpose of this study was to examine changes in psychological and physical health within the RJ population, comparing across groups of participants who received different types of RJ services (i.e., meeting versus no meeting). Therefore, the comparisons that were important for this study were those across different levels of a RJ process (e.g., meeting versus no meeting), rather than to a comparison group who did not receive any RJ experiences.

Second, and perhaps just as important as the first limitation, is that although the results indicated that change occurred, there is no way of knowing whether this change was due primarily to the RJ process.

Third, this study used an informal and unstandardized method to determine the number of health problems participants exhibited. While it would have been preferable to include standardized measures, we were limited in the number of questions that could be added to an ongoing research evaluation. Standardized assessment instruments assessing physical and psychological health would also have resulted in the examination of a larger number of indicators. Overall, however, this study did examine a number of items, and provided a preliminary indication that this area is worthy of additional examination.

Fourth, the issue of sample size must be considered. While results did not appear to be affected by the size of the sample, a larger sample would have allowed for additional statistical analyses, in addition to increased credibility and generalizability of the results.

Future Research

As suggested in the introduction, RJ research is still in “toddlerhood”. While there are areas where researchers are fairly certain and consistent (e.g., RJ is generally more satisfying when compared to the traditional justice system), there are many areas left to be explored. In the context of this study, the findings support previous preliminary research that suggests that RJ processes may have a positive impact on participants’ psychological and physical health. This study added to the RJ field by specifically examining many specific indicators of physical and psychological health of program participants, and the change of these indicators over the course of the RJ process. Future research should more closely examine the various indicators and incorporate standardized instruments that measure these areas.

⁶ See Ruge et al. (2005) and Ruge & Cormier (2005) for further information.

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Appendix A

Physical Health Checklist (PhC)

(To be completed based on responses from the Interview)

Indicators:	0 = no problem	1 = some problem	2 = major problem
Sleeping			
Eating Habits			
Alcohol Use			
Prescribed Drug Use			
Illegal Drug Use			
Exercise			
Other: _____			
Participant's Own Health Rating			
Sub-Totals			

TOTAL SCORE: _____ /16

Coding Instructions:

Item	Based on Responses from Qs:*	Specific Coding Rules
Sleeping:	1, 2, 10, 11	If #2 & #11 are yes, but #10 is no, score as 1. If #10 is yes, score as 2.
Eating:	1, 2, 13	Score as 0 or 1 only. Excellent, very good, good, fair = 0, poor = 1.
Alcohol Use:	1, 3, 4, 5, 6, 9	Consistent judgment call (based on combination of responses)
Prescribed Drugs:	1, 3, 7, 8, 9, 11	Consistent judgment call (based on combination of responses)
Illegal Drugs:	1, 3, 7, 8, 9, 11	Consistent judgment call (based on combination of responses)
Exercise:	1, 14	Score as 0 or 1 only. Excellent, very good, good, fair = 0, poor = 1.
Other:	1, 15	To be determined based on participant's comments.
Participant's Own Health Rating	12	Score as 0 or 1 only. Excellent, very good, good, fair = 0, poor = 1.

* Note: Question numbers are based on questions found in the Interview. To view these questions, please consult Ruge (2006).

Appendix B

Psychological Health Checklist (PsC)

(To be completed based on responses from the Interview)

Indicators:	0 = no problem	1 = some problem	2 = major problem
Safety			
Fear			
Vulnerability			
Anger			
Shame/Guilt			
Depression			
Thoughts of suicide			
Anxiousness/Stressed			
Hurt/Disappointment			
Upset/Confusion/Frustration			
Self-reliance			
Self-esteem			
Interfering Thoughts			
Counsellor			
Outlook			
Other: _____			
Participant's Own Psych. H. Rating			
Sub-Totals			

TOTAL SCORE: _____ /28

Coding Instructions:

Item	Based on Responses from Qs:*	Specific Coding Rules
Safety	1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 16	Consistent judgment call (based on combination of responses)
Fear	8, 9, 10, 14, 15, 16, 17, 19	Consistent judgment call (based on combination of responses)
Vulnerability	16, 18	Score as 0 or 1 only. No = 0, Somewhat & Yes = 1.
Anger	16, 19	Consistent judgment call (based on combination of responses)
Shame/Guilt	16, 19	Score as 0 or 1 only. No = 0, Yes = 1.
Depression	16, 19, 27	Consistent judgment call (based on combination of responses)
Thoughts of suicide	16, 19	Score as 0 or 1 only. No = 0, Yes = 1.
Anxiousness/Stressed	16, 19, 27, 28, 29	Consistent judgment call (based on combination of responses)
Hurt/Disappointment	16, 19	Score as 0 or 1 only. No = 0, Yes = 1.
Upset/Confusion/Frustration	16, 19, 27, 28, 29	Consistent judgment call (based on combination of responses)
Self-reliance	16, 19	Score as 0 or 1 only. No = 0, Yes = 1.
Self-esteem	16, 19	Score as 0 or 1 only. No = 0, Yes = 1.
Interfering Thoughts	16, 19, 21, 22, 23	Consistent judgment call (based on combination of responses)
Counsellor	16, 20	Score as 0 or 1 only. No = 0, Yes = 1.
Outlook	16, 26, 28, 29	Consistent judgment call (based on combination of responses)
Other: _____	16, 24	Consistent judgment call (based on combination of responses)
Participant's Own Psychological Health Rating	25	Score as 0 or 1 only. Excellent, very good, good, fair = 0, poor = 1.

* Note: Question numbers are based on questions found in the Interview. To view these questions, please consult Ruge (2006).