Effect of Victim-Offender Mediation versus Dispositions on Youth Recidivism: The Role of Risk Level

LIDÓN VILLANUEVA, PhD
Developmental Psychology Department, Universitat Jaume I, Castellón, Spain

PILAR JARA, PhD
Methodological Department, Universitat Jaume I, Castellón, Spain

ARANTXA GARCÍA-GOMIS, MA
Developmental Psychology Department, Universitat Jaume I, Castellón, Spain

The objective was to determine the efficacy of the victim-offender mediation (VOM) procedure in addressing recidivism. Altogether, 210 juvenile offenders (14–18 years old) participated in four different types of educational interventions: VOM as a diversion procedure, and case closure, reprimand, and community service as dispositions. Results showed the lack of any clear differences in recidivism rates between victim-offender mediation and the rest of the groups. An increase of the rate of recidivism could be observed in VOM at 12 months and in case closure at 24 months, as level of risk increases.

KEYWORDS victim-offender mediation (VOM), dispositions, risk level, Youth Level of Service/Case Management Inventory (YLS/CMI), reoffending

INTRODUCTION

In addition to the traditional educational interventions that can be applied to young offenders after they commit a crime, the Spanish Law of Criminal Liability of Minors 5/2000 (LORPM) also includes measures linked to the philosophy of Restorative Justice (Braithwaite, 1989, 2002; Umbreit, 2001).
The Restorative Justice paradigm engaged offenders in dialogue, relationship building, and moral communication to a greater degree than traditional court proceedings (Kuo, Longmire, & Cuvelier, 2010). This paradigm varies in terms of their practices, aims, and links with the legal system. This Spanish LORPM allows for the possibility of the Youth Offending Team of the Juvenile Court to implement an extrajudicial resolution based in restorative justice, where young offenders are considered subjects capable of accepting responsibility for their actions and with the capacity to repair the harm done to the victims through restorative processes such as victim-offender mediation (VOM). This procedure is the oldest and most widely practiced expression of restorative justice (Nugent, Williams, & Umbreit, 2004). A mediator prepares each party separately before a guided face-to-face meeting between victim and offender. In this meeting, the offender presents an explanation or apology to the victim and makes amends in a symbolic or practical way. Thus, the aim of VOM is to ensure the victim receives some psychological satisfaction from the young offender, which in turn helps the latter to grow, develop in the socio-moral sphere, and advance in the educational field (Noll, 2008).

The VOM procedure and the restorative justice paradigm in general have traditionally been examined in studies of a more qualitative or narrative nature. Yet a growing number of studies are using quantitative data to analyze the impact of this kind of intervention on the youth’s development later on in life. Most of the studies have analyzed the effectiveness of VOM by measuring the victim’s and/or the offender’s degree of satisfaction (Umbreit, 1994; Yanay & Borowski, 2013), but an increasing number are now also taking the minors’ rates of recidivism into account (Capdevila, Ferrer, & Luque, 2005; De Beus & Rodríguez, 2007; Germán & Ocáriz, 2009; Niemeyer & Shichor, 1996; Rodríguez, 2007; Smith & Weatherburn, 2012). This work belongs to this second group of studies.

Among these groups of studies that analyze the effect of VOM, some found that the differences were not statistically significant (Roy, 1993), while in others, they were found to be significant (Latimer, Downden, & Muise, 2005; Nugent, Umbreit, Winnamaki, & Paddock, 2001; Rodríguez, 2007; Umbreit, Coates, & Vos, 2001; Wilson & Hoge, 2013b). These differences in the results could be mainly due to methodological issues, such as the presence of biases in the selection of participants for the studies, the absence of suitable control groups, or even variations in the restorative justice procedures themselves.

The studies that attempt to solve some of these methodological problems continue to find a positive impact of VOM on the young offender’s behavior. A number of meta-analyses bear this out. For example, Latimer et al. (2005) analyzed studies that involve restorative justice practices (77% of them were VOM processes) based on two criteria. First, they had to include a control or comparison group and, second, they had to have at least one of the following variables in order to analyze the effect: satisfaction of the victim
and of the offender, degree of repair, and rate of recidivism. Findings showed that both the victim's satisfaction and the degree of restitution were high, the offender's satisfaction was moderate, and recidivism rates were lower, all compared to juveniles who did not participate in these procedures.

Meta-analysis studies conducted using only VOM procedures yielded similar results. Nugent et al. (2001) selected studies that had a similar VOM approach, were focused only on minors, and presented rates of recidivism after a follow-up of at least 1 year. The results showed that those who participated in these procedures recidivated 32% less than non-participating minors. Moreover, when they did re-offend, the crimes they committed were less serious than those carried out by non-participants. In a later meta-analysis that also required the presence of a control or comparison group in the studies (Nugent et al., 2004), the percentage remained more or less the same. Participants re-offended 30% less than non-participants.

Transcultural studies such as that of Umbreit, Coates, and Roberts (2000) substantiate the positive results of VOM. The research was carried out with a population from the United States, Canada, and England and included several measurements of the impact of VOM, such as overall satisfaction with the process, the fact of having been referred to mediation, the reduced fear of being attacked again, reparation, and recidivism over 1 year. Again, the participants obtained high levels of satisfaction in these aspects, a reduction in the fear of being attacked again, and lower rates of recidivism (18% versus 27%).

An analysis of these positive effects of VOM on recidivism over time reveals an important temporal element. Bradshaw, Roseborough, and Umbreit (2006) concluded that participation in VOM processes accounted for 34% of the reduction in recidivism. On including follow-up periods of between 12 and 24 months, they also found a negative correlation between the length of the follow-up period and the size of the significance. This same time effect was also observed by Niemeyer and Shichor (1996) and by Bergseth and Bouffard (2007), who found that the significance of the effects dropped at 2 and 3 years of follow-up, respectively. Given these results, some authors suggest that the effect of VOM would be limited to 1 year (Nugent et al., 2001).

As suggested by several different authors (Schwalbe, Gearing, Mackenzie, Brewer, & Ibrahim, 2012; Wilson & Hoge, 2013a), another variable that must be taken into account in research on the effectiveness of diversion procedures is the level of risk of recidivism. This risk assessment is essential if we are to respect the risk principle (Andrews & Bonta, 2010; Andrews, Bonta, & Hoge, 1990). In this regard, it has been shown that some interventions with low-risk youths can produce poor results, whereas the same interventions aimed at high-risk offenders yield positive results. In their meta-analysis of the effectiveness of diversion procedures versus
traditional measures (probation, reprimand, etc.), Wilson and Hoge (2013b) found that although greater reductions in recidivism were seen in the first case, their degree of effectiveness was moderated by the minor’s level of risk. Unfortunately, few studies report the level of risk of the sample, so the authors created a risk variable using the information available about the youth, rather than through an objective procedure such as the one used in this study.

In an attempt to reduce the effect of previous shortcomings, the main contributions of this study will be the following. First, the effectiveness of VOM measures (diversion) will be analyzed, including three comparison groups of similar dispositions in terms of the type (community-based) and the level of risk of re-offending (low-moderate). More specifically, these dispositions measures would be reprimand, case closure, and community service (CS). Likewise, the variable level of risk of recidivism of the minor is included, since its effect on the effectiveness of VOM has been highlighted in several studies (Schwalbe et al., 2012; Wilson & Hoge, 2013b), and it is easily evaluated by means of an objective procedure, namely, the Youth Level of Service/Case Management Inventory (YLS/CMI). Third, recidivism was followed up for a period of 2 years, since it has been shown that most re-offending takes place within that time (Bravo, Sierra, & del Valle, 2009; Capdevila et al., 2005; Mulder, Brand, Bullens, & van Marle, 2011).

Therefore, the aim of this study is focused on determining the level of effectiveness of VOM, as reflected by recidivism, in comparison to other similar procedures. Furthermore, the level of effectiveness of the measures is analyzed in terms of the level of risk of the youth re-offending and at two follow-up times (i.e., at 12 and 24 months). The hypotheses posited with respect to this matter are the following: The level of risk of recidivism and the measure imposed on the minor will predict re-offending within the follow-up periods under analysis. Hence, an increase in the level of risk and the dispositions (case closure, reprimand, and CS) are expected to be related to a higher rate of recidivism within the follow-up period. Similarly, it is hypothesized that this relationship will remain stable or decrease over the two follow-up periods under analysis (Bradshaw et al., 2006; Niemeyer & Shichor, 1996).

**METHOD**

**Participants**

The study was undertaken with all the minors who have been charged with an offense in the Juvenile Court of a Spanish province between January 2008 and February 2010 ($N = 210$). All of them were assessed by the Youth Offending Team as a result of having committed some kind of crime or offense. In this assessment, the youths’ ages ranged from 14 to 18.07 years,
with a mean of 16.06 years ($SD = 1.16$). Of the total number, 151 were boys (71.9%), and the distribution of the different nationalities was as follows: 75.7% Spanish, 9.5% Latin American, 8.1% Romanian and 6.7% from Arab countries. Fifty-four subjects participated in VOM, 54 subjects in the case closure group, 52 subjects in the reprimand group, and 50 subjects in the CS group. The overall percentage of youths who re-offended 2 years after applying these measures was 5%.

In the group that participated in VOM, there were significantly more girls ($Chi^2 (3, 210) = 15.42, p = .001$), and more crimes against persons ($Chi^2 (6, 210) = 18.90, p = .004$) than in the other measures. The measurements of the level of risk of re-offending, on the other hand, ranged between low (0–8 points on the YLS/CMI Inventory), for VOM ($M = 4.2, SD = 4.1$), case closure ($M = 2.9, SD = 2.8$) and reprimand ($M = 4.9, SD = 6.1$), and moderate (9–22 points on the Inventory) for CS ($M = 10.8, SD = 6.5$). As can be observed, the measure with the highest level of risk of recidivism was CS ($F (3,209) = 23.65, p = .000$).

Instrument

The YLS/CMI Inventory by Hoge and Andrews (2006), which was translated into Spanish by Garrido, López, Silva, López, and Molina (2006) as the Inventario de Gestión e Intervención para Jóvenes (IGI-J), is an instrument for evaluating the risk of a youth re-offending. To complete the inventory, information must be collected from different sources, such as an interview with the family and the minor, previous charges, social services, educational institutions, and so forth.

This inventory consists of 42 items grouped into eight risk factors; each item can be marked as present (1 point) or absent (0 point). The evaluator marks the risk items that can be applied to the minor, each variable factor having between three and seven items. The factors included in the questionnaire are the following: (1) prior and current offenses and dispositions (“Three or more prior convictions”); (2) family circumstances/parenting (“Inconsistent parenting”); (3) education/employment (“Disruptive classroom behaviour”); (4) peer relations (“Some delinquent friends”); (5) substance abuse (“Chronic alcohol use”); (6) leisure/recreation (“No personal interests”); (7) personality/behavior (“Poor frustration tolerance”); and (8) attitudes, values, and beliefs (“Defies authority”). Hence, summing up all the items present in the youth provides us with a level of the risk for recidivism, which can be classified in different ranges: low (0–8 points), moderate (9–22), high (23–32), and very high (33–42 points). According to the overall score obtained on the Inventory, the Youth Offending Team will decide on what kind of disposition should be adopted with the juvenile. The Spanish version of the inventory has shown adequate psychometric properties in previous studies ($\alpha = .87$; Cuervo & Villanueva, 2013).
Procedure

When a minor is charged with committing a crime or offense, he or she is assessed by the Youth Offending Team of the Juvenile Court. These professionals interview both the minor and his or her legal representatives about individual, educational, familial, and social aspects present in the youth’s surroundings. According to this information, the YLS/CMI Inventory is scored, thus obtaining the risk of recidivism for each subject; this score can then be used to propose a particular type of measure or educational intervention.

The juveniles were assigned to different groups by the Youth Offending Team as follows. If the youth was considered to be willing to repair the damage done to the victim and the victim agreed to take part in the mediation, he or she was assigned to the group of those participating in VOM. This type of intervention consists in a guided face-to-face meeting between a crime victim/s and the offender/s, following pre-mediation preparation of each party (Umbreit et al., 2001). If the youth was not willing to repair the damage done to the victim, the latter did not agree to participate or, should it be the case, the Youth Offending Team considered the crime to be serious, and the number of previous charges against the youth was high, then he or she was assigned to the comparison group (reprimand, case closure, or CS). Reprimand consisted mainly in an individual warning made to the youth by the juvenile judge; Case closure implied the total closure of the charges, and CS was the opportunity to repair damage by working for the benefit of the public or the institutions. The assignment to these three dispositions depended on the youth situation and personal characteristics, but, in all the cases, no criteria for VOM were accomplished. The following dummy variables were used to perform the interactions: “D_reprimand,” juveniles present in that group, otherwise zero; “D_caseclosure,” indicated presence in that group and zero otherwise; “D_VOM,” indicated the minors belonging to this group and zero otherwise; and “D_CS,” indicated presence in that group and absence from the others.

The criterion taken to classify a minor as a re-offender was the following: any juvenile who, after being assessed by the Youth Offending Team and having completed the YLS/CMI Inventory, which was taken as the baseline, is charged with another offense within the follow-up period. Specifically, number of new criminal records was recorded at two times (i.e., at 12 and 24 months).

Data Analyses

To address the aims of the study, regression with interaction was considered (Aguinis, 2004; Jaccard, Turrisi, & Wan, 2003). Testing hypotheses by the interaction among group variables is a very practical method for two reasons: (1) The predicted values (the means of each respective group) reproduce
the real means of the dependent variable in each group, and (2) interaction among variables provides privileged information about the nature of the data. This is because sometimes the relationship among the groups of independent variables is more complex than the additive provided by the regression with just the main effects of the same variables (Rosel, Jara, & Herrero, in press).

RESULTS

The model proposed here attempts to explain the dependent variable (DV), “Recidivism,” in terms of the interaction of the independent variables (IVs): “Types of Measures” and “Level of Risk (YLS/CMI),” in two follow-up periods. To this end, initially the regressions with interaction of the IVs from each of the times (12 and 24 months) are presented, and then the development over the two follow-up periods is displayed graphically. Finally, we check whether any differences are produced in the predictions obtained in “Recidivism” between time measurements, and in each case using contrast statistics for repeated measures (“t” tests).

At 12 months, the model shown in Table 1 can be seen to be significant ($F_{(7, 210)} = 4.428$, Sig. = .000). On this occasion, 13.8% ($R^2 = .138$) of “Recidivism” is differentially accounted for by the interaction between the “Level of Risk (YLS/CMI)” and “Type of Measure” groups. Table 1 shows the coefficients obtained after applying the regression model with interaction, and it can also be observed how the main effect of the “Level of Risk (YLS/CMI)” has a positive effect on “Recidivism”; that is to say, as the level of risk values grows, the youths’ rate of recidivism also grows. Yet, in this case, the interesting thing is that the block of variables in interaction makes a significant contribution (Sig. change in $F = .023$) to explain “Recidivism.” A detailed explanation of the model would indicate that for a zero level of risk, there are no differences among the groups in terms of recidivism. That is, low risk levels of all the educational interventions presented similar

| TABLE 1 | Coefficients of the Regression Model at 12 Months |
|---|---|---|---|
| Model | B Coeff. | t | Sig. |
| (Constant) | −.116 | −1.431 | .154 |
| “Type of Measure”: VOM, case closure, reprimand or CS | .034 | 1.235 | .218 |
| Total risk (YLS) | .045 | 4.548 | .000 |
| D_Reprimand | .032 | .456 | .649 |
| D_CS | .053 | .560 | .576 |
| Total_risk * D_Reprimand | −.031 | −2.521 | .012 |
| Total_risk * D_CS | −.036 | −3.021 | .003 |
| Total_risk * D_Caseclosure | −.034 | −1.947 | .053 |

D_variable = dummy variable.
Effect of Victim-Offender Mediation recidivism rates. In Figure 1 (follow-up period of 12 months), it can be seen how all the lines start from approximately the same values. If we focus our attention on the interaction terms, however, significant differences can be seen between the reprimand and CS groups, with respect to the reference group (which in this case is the VOM group), and significance is almost reached with the case closure group.

The foregoing means that, although initially the incidence on recidivism is similar in all the groups, as the value of the “Level of Risk (YLS/CMI)” interacts with the different “Types of Measures,” the way the recidivism is produced varies according to the group the youth belongs to. More specifically, the group that increases its rate of recidivism the fastest is the one in which the youths belong to the interaction between Level of Risk (YLS/CMI)∗VOM. Furthermore, this interaction is produced in a statistically significant way with respect to the minors belonging to the reprimand group and the CS group, where the growth of recidivism is less pronounced 12 months after the interview (see Table 1). That is, in high risk levels, VOM is the intervention group that dramatically increases its recidivism rate in comparison with the rest of the groups (see Figure 1).

Later, at 24 months, it can be seen that the model shown in Table 2 is significant (F(7,210) = 2.543, Sig. = .016). At this time, 8.1% (R² = .081) of “Recidivism” is explained by the model shown in Table 2, where it can be seen how the multiplicative effect is significant (Sig. change in F = .06), between the value of the Level of Risk (YLS/CMI) and the Case closure group. Two years after applying the different measures, this is the time when the greatest risk of recidivism occurs for the Case closure group.

A detailed explanation of the model would indicate that for a Level of Risk with a value of zero, there are no differences among the groups in terms
TABLE 2 Coefficients of the Regression Model at 24 Months

| Model                                      | B Coeff. | t     | Sig. |
|--------------------------------------------|----------|-------|------|
| (Constant)                                 | .026     | .398  | .691 |
| “Type of Measure”: VOM, case closure, reprimand or CS | −.015     | −.691 | .490 |
| Level of Risk (YLS)                        | .002     | .243  | .808 |
| D_Reprimand                                | .045     | .825  | .410 |
| D_CS                                       | .034     | .455  | .649 |
| Total_risk * D_Reprimand                   | −.002    | −.244 | .808 |
| Total_risk * D_CS                          | −.001    | −.143 | .886 |
| Total_risk * D_Caseclosure                 | .041     | 2.971 | .003 |

D_variable = dummy variable.

TABLE 3 Means of Predictions of Recidivism at the Two Times and by Groups

| Type of Measure | VOM Mean | Reprimand Mean | CS Mean | Case Closure Mean |
|-----------------|----------|----------------|---------|-------------------|
| Recidivism (12 months) | .111     | .057           | .140    | .055              |
| Recidivism (24 months) | .018     | .038           | .020    | .092              |

|          |          |               |         |                   |
|----------|----------|---------------|---------|-------------------|
|          | 3.763**  | 1.456*        | 14.995**| −2.971**          |

**sig ≤ .01; * = not significant.

of Recidivism (see Figure 1; follow-up period of 24 months). Again, low risk levels of all the educational interventions presented similar recidivism rates. On focusing our attention on the interaction terms, it can be seen that there are significant differences in the case closure group in interaction with the risk values. That is, in high risk levels, Case closure is the intervention group that significantly increases its recidivism rate in comparison with VOM procedure (see Table 2).

If we compare what happens among the groups, now considering the predictions of recidivism at the two times, then significant differences emerge ($t = 5.260$, Sig. = .000). The means of recidivism by groups are shown in Table 3. All the groups yielded significant differences when comparing the two follow-up periods, with the exception of the reprimand group. In the case of VOM and CS, a decrease in recidivism could be observed with the course of time. On the contrary, the Case closure group was the only one presenting a steady increase in recidivism when comparing both follow-up periods (see Table 3).

DISCUSSION

The aim of this study was focused on determining the level of effectiveness of VOM, as an extrajudicial solution, in terms of the future recidivism of the
juvenile in comparison to other dispositions and depending on the youth’s level of risk for re-offending. Thus, the first hypothesis posited that the level of risk of recidivism and the measure imposed on the youth would predict re-offending within the follow-up periods under analysis. Specifically, an increase in the level of risk and dispositions (Case closure, Reprimand, and CS) were expected to be related to a higher rate of recidivism within the follow-up period. This hypothesis was not supported by the results. In this respect, our data agree with the group of previous studies that found no clear advantage of VOM measures over the others (Roy, 1993; Schwalbe et al., 2012; Umbreit & Coates, 1993). One possible explanation for these results could be that the Juvenile Court’s Youth Offending Team proposes these four measures bearing in mind the needs and characteristics of low-moderate risk youths and tries to match them as far as possible within the range of community-based measures. In other words, the principle of applying the minimum necessary intervention, tailored to match the minor’s needs, is adhered to.

Moreover, the absence of differences could also be indicating the interdependence of the effectiveness of the measures of other modulating variables, such as the level of risk of recidivism. In fact, at the 12-month period, the VOM measure is the one that produces the greatest recidivism as the YLS/CMI value grows; that is to say, 12 months after the application of the measure, the dispositions allow better rates to be obtained. At higher levels of risk, despite the educational intervention in the form of VOM, the rate of recidivism continues to increase. In this sense, the professionals of the Youth Offending Team should take the level of risk of recidivism into account when it comes to selecting the young offenders who are going to participate in VOM. These results offer a practical consequence for the implementation of VOM in juvenile courts. If the variable risk level becomes critical for VOM effectiveness, then no assignment of youths to VOM group by the Youth Offending Team must be done before assessing their risk level. A high level of risk among the youths assigned to the VOM measure may be a variable that has a negative effect on it. These results are in agreement with those obtained by Schwalbe et al. (2012) and Wilson and Hoge (2013b).

Trying to transfer these results to the Restorative Justice interventions, VOM procedures could be applied to both serious and less serious crimes but always in low-moderate risk levels. Effectiveness of VOM procedures seem to be linked to a low-moderate number of risk factors and the inclusion of those positive attitudinal factors that agree with restorative principles, such as certain concern for others and ability to dialogue and to assume a degree of responsibility.

The results obtained after 24 months’ follow-up should be noted. The effect of the interaction of the independent variables again reaches statistical significance and, therefore, the groups would behave differently in terms of recidivism. In this case, it was found that the CS, VOM and reprimand
groups no longer display practically any risk of recidivism, and the case closure group is the one that maintains a growth in recidivism of .041 units for each unit of the level of risk with this group.

As the youth’s level of risk rises, after 2 years, the rate of recidivism of the juveniles who simply had their case closed, rather than being referred to an educational intervention, increases. That is to say, the other measures that did include an intervention (as is the case of VOM, reprimand, and CS) are the ones that, despite the risk and time elapsed, did not display any later increase in the rate of recidivism. Following the lines of the risk principle proposed by Andrews and Bonta (2010), it seems that, although the level of risk must be matched to the proposed intervention, even low-risk minors respond better to a minimum supervision and not a total absence of supervision. This would directly question the fact as to whether, in low-risk youths, better results are sometimes obtained if no intervention at all is carried out.

The second hypothesis, on the other hand, proposed that the relationship between the type of measure and the level of risk on the variable recidivism would remain stable or decrease over the two follow-up periods that were analyzed. This hypothesis was supported by the results. Specifically, the significant effect of an interaction between the level of risk and recidivism at 12 and 24 months was confirmed. VOM at 12 months and case closure at 24 months should be considered as groups in critical periods. In fact, previous studies have shown that the mean number of months that elapse before a juvenile re-offends for the first time is approximately 9 months (Capdevila et al., 2005; Cuervo & Villanueva, 2013; Upperton & Thompson, 2007), while most of the re-offending takes place during the first two years (Bravo et al., 2009; Mulder et al., 2011).

Finally, it should be noted that most of the studies that have analyzed the effects of VOM have focused on young male offenders and less serious crimes or crimes committed against property (Kirkwood, 2010; Rodríguez, 2007; Umbreit et al., 2000). This fact makes the results obtained even more significant, since it extends them to another type of participants not traditionally included in research in this area, while at the same time expanding their generalizability: that is, the VOM group with a higher percentage of girls and with crimes against persons. Indeed, it is necessary to begin to apply VOM to more serious crimes (Bradt & Bourvene De-Bie, 2009) or those against persons (Umbreit et al., 2000). Otherwise, the restorative justice paradigm will never fully develop and convincingly prove its advantages. Furthermore, if we bear in mind that a crime or offense is an action carried out against persons within the community context rather than a breach of the law (Umbreit & Coates, 1992), then the need to apply it to interpersonal conflicts such as crimes against persons (threatening behavior, actual bodily harm, etc.) becomes even clearer.
Briefly reflecting on this research reveals a series of limitations that point toward future lines of research. The first of these shortcomings concerns the self-selection bias that is produced in the group of participants involved in VOM. Since it is a voluntary procedure, the youths taking part in it may be more motivated than those in the control or comparison groups. In addition to this bias, there is also the selection produced by the professional criteria applied by the Youth Offending Team when proposing a case for VOM. These aspects are, however, a problem that is inherent in the principles of restorative justice. Random assignation, the procedure recommended to solve these biases, raises other problems of an ethical nature that will need to be tackled by professionals. Some authors (Bradshaw et al., 2006; Latimer et al., 2005) suggest a possible solution consisting in including motivational assessment of participants before entering the program. The aim of such evaluation would be to control for the fact that the variable motivation is not the one responsible for the possible differences between groups.

Likewise, we are aware of the need to incorporate different groups of measures, such as the victims’ or the offenders’ level of satisfaction or agreement with the restitution as dependent variables (Latimer et al., 2005). In fact, several authors (Bradshaw & Umbreit, 2003; Manzano, Soria, & Armadans, 2008) have proposed questionnaires to evaluate adult users’ degree of satisfaction with penal mediation programs that could be adapted to a population of juveniles. This diversity of evaluation criteria would be in line with Presser and Van Voorhis (2002) as regards the analysis of both the results (recidivism) and the processes involved in these programs (satisfaction and restitution); this would result in a broader and more complete view of the effectiveness of VOM.

In spite of the limitations discussed above, the results of this study show the lack of clear differences in recidivism rates between diversion procedure (VOM) and dispositions. However, attention should be paid to the VOM or case closure groups, since there could be an increase in the rate of recidivism, which interacts with the level of risk, depending on the moment in time (12 or 24 months, respectively). These results point to the need to consider risk level as an important variable to take into account in youth recidivism assessment, and especially in the restorative justice paradigm.

REFERENCES

Aguinis, H. (2004). *Regression analysis for categorical moderators*. New York, NY: Guilford Press.

Andrews, D. A., & Bonta, J. (2010). *The psychology of criminal conduct* (5th ed.). Cincinnati, OH: Anderson.
Andrews, D. A., Bonta, J., & Hoge, R. D. (1990). Classification for effective rehabilitation: Rediscovering psychology. *Criminal Justice and Behavior, 17*, 19–52.

Bergseth, K. J., & Bouffard, J. A. (2007). The long impact of restorative justice programming for juvenile offenders. *ScienceDirect. Journal of Criminal Justice 35*, 433–451.

Bradshaw, W., Roseborough, D., & Umbreit, M. S. (2006). The effect of victim offender mediation on juvenile offender recidivism: A meta-analysis. *Conflict Resolution Quarterly, 24*, 87–97.

Bradshaw, W., & Umbreit, M. (2005). Assessing satisfaction with victim services: The development and use of the victim satisfaction with offender dialogue scale (VSODS). *International Review of Victimology, 10*, 71–83.

Bradt, L., & Bourvene De-Bie, M. (2009). Victim-offender mediation as a social work practice. *International Social Work, 52*, 181–193.

Braithwaite, J. (1989). *Crime, shame and reintegration*. New York, NY: Cambridge University Press.

Braithwaite, J. (2002). *Restorative justice and responsive regulation*. New York, NY: Oxford University Press.

Bravo, A., Sierra, M. J., & del Valle, J. F. (2009). Evaluación de resultados de la ley de responsabilidad penal de menores. Reincidencia y factores asociados. *Psicothema, 4*, 615–621.

Capdevila, M., Ferrer, M., & Luque, E. (2005). La reincidencia en el delito en la justicia de menores. Centre d’Estudis Jurídics i Formació Especializada. Barcelona: Generalitat de Catalunya.

Cuervo, K., & Villanueva, L. (2013). Reiteración y reincidencia en menores españoles con expediente judicial. *Revista Mexicana de Psicología, 30*, 61–68.

De Beus, K., & Rodríguez, N. (2007). Restorative justice practice: An examination of program completion and recidivism. *Journal of Criminal Justice, 35*, 337–347.

Garrido, V., López, E., Silva, T., López, M. J., & Molina, P. (2006). El modelo de la competencia social de la ley de menores. Valencia: Tirant Lo Blanc.

Germán, M. C., & Ocáriz, P. E. (2009). Menores infractores/ menores víctimas. Hacia la ruptura del círculo victimal. *Eguzkilore, 23*, 287–300.

Hoge, R. D., & Andrews, D. A. (2006). *Youth Level of Service/Case Management Inventory (YLS/CMI)*. Toronto, ON: Multi-Health Systems.

Jaccard, J., Turrisi, R., & Wan, C. K. (2003). *Interaction effects in multiple regression* (2nd ed.). Thousand Oaks, CA: Sage.

Kirkwood, S. (2010). Restorative justice cases in Scotland: Factors related to participation, the restorative process, agreement rates and forms of reparation. *European Journal of Criminology, 7*, 107–122.

Kuo, S., Longmire, D., & Cuvelier, S. J. (2010). An empirical assessment of the process of restorative justice. *Journal of Criminal Justice, 38*, 318–328.

Latimer, J., Dowdén, C., & Muise, D. (2005). The effectiveness of restorative justice practices: A meta-analysis. *The Prison Journal, 85*, 127–144.
Manzano, B. J., Soria, M. A., & Armadans, T. I. (2008). Elaboración de un cuestionario para valorar la satisfacción de los usuarios de un programa de mediación penal (CSM-P). *Psicothema, 20,* 474–480.

Mulder, E., Brand, E., Bullens, R., & van Marle, H. (2011). Risk factors for overall recidivism and severity of recidivism in serious juvenile offenders. *International Journal of Offender Therapy and Comparative Criminology, 55,* 118–135.

Niemeyer, M., & Shichor, D. (1996). A preliminary study of a large victim/offender reconciliation program. *Federal Probation, 60,* 30–34.

Noll, D. E. (2008). Restorative justice: Outlining a new direction for forensic psychology. *Journal of Forensic Psychology Practice, 3,* 5–24.

Nugent, W. R., Umbreit, M. S., Winnamaki, L., & Paddock, J. (2001). Participation in victim-offender mediation and reoffense: Successful replications? *Research on Social Work Practice, 11,* 5–23.

Nugent, W. R., Williams, M., & Umbreit, S. M. (2004). Participation in victim-offender mediation and the prevalence of subsequent delinquent behavior: A meta-analysis. *Research on Social Work Practice, 14,* 408–416.

Presser, L., & Van Voorhis, P. (2002). Values and evaluation: Assessing processes and outcomes of restorative justice programs. *Crime & Delinquency, 48,* 162–188.

Rodriguez, N. (2007). Restorative justice at work: Examining the impact of restorative justice resolutions on juvenile recidivism. *Crime & Delinquency, 53,* 355–279.

Rosel, J., Jara, P., & Herrero, F. (in press). *Pronóstico con interacción de variables categóricas.* Castellón: Colección Sapientia. Retrieved from www.uji.es/publ/sapientia

Roy, S. (1993). Two types of juvenile restitution programs in two Midwestern counties: A comparative study. *Federal Probation, 57,* 48–53.

Schwalbe, C. S., Gearing, R. E., MacKenzie, M. J., Brewer, K. B., & Ibrahim, R. (2012). A meta-analysis of experimental studies of diversion programs for juvenile offenders. *Clinical Psychology Review, 32,* 26–33.

Smith, N., & Weatherburn, D. (2012). *Youth justice conferences versus children’s court: A comparison of re-offending.* Sydney, Australia: NSW Bureau of Crime Statistics and Research.

Umbreit, M. S. (1994). *Victim meets offenders: The impact of restorative justice and mediation.* Monsey, NY: Criminal Justice Press.

Umbreit, M. S. (2001). *The handbook of victim offender mediation. An essential guide to research and practice.* San Francisco, CA: Jossey-Bass.

Umbreit, M. S., & Coates, R. B. (1992). The development and impact of victim-offender conflict: An analysis of programs in three states. *Juvenile and Family Court Journal, 43,* 21–28.

Umbreit, M. S., & Coates, R. B. (1993). Cross-site analysis of victim-offender mediation in four states. *Crime & Delinquency, 39,* 565–585.

Umbreit, M. S., Coates, R. B., & Roberts, A. W. (2000). The impact of victim-offender mediation: A cross-national perspective. *Mediation Quarterly, 17,* 215–229.

Umbreit, M. S., Coates, R. B., & Vos, B. (2001). The impact of victim-offender mediation: Two decades of research. *Federal Probation, 65,* 29–33.
Upperton, R. A., & Thompson, A. P. (2007). Predicting juvenile offender recidivism: Risk-need assessment and justice officers. *Psychiatry, Psychology and Law, 14*, 138–146.

Wilson, H. A., & Hoge, R. D. (2013a). Diverting our attention to what works: Evaluating the effectiveness of youth diversion program. *Youth Violence and Juvenile Justice, 15*, 1–19.

Wilson, H. A., & Hoge, R. D. (2013b). The effect of youth diversion programs on recidivism: A meta-analytic review. *Criminal Justice Behavior, 40*, 497–518.

Yanay, U., and Borowski, A. (2013). From a court orientation to a victim orientation: The paradigm shift in Israel’s juvenile probation service. *European Journal of Criminology, 10*, 675–689.