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From multimodal programs to a new cognitive-interpersonal approach in the rehabilitation of
offenders

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1. Introduction

There is currently a large body of empirical evidence sustaining the efficacy of cognitive-behavioral rehabilitation programs in reducing recidivism rates in young and adult offenders. Many of these programs are applied either to prevent or to rehabilitate delinquent youths and antisocial adults. Since the first efforts to design structured interventions with antisocial individuals, there has been a growing tendency towards more complex methodologies, strategies, and program contents. In the last decades, the majority of the proposed programs are based on cognitive-behavioral models of deviant behavior. Consequently, their contents, modules, and sessions aim for the development of deficits (cognitive, emotional regulation, and behavioral skills), which have been shown to play a significant role in the maintenance of aggressive behavior patterns and antisocial personality traits.

This paper reviews outcomes from research supporting the use of structured intervention programs in the rehabilitation of young and adult offenders, discusses factors that may affect intervention's outcomes, and presents a new cognitive-interpersonal structured approach which tries to overcome some of the shortcomings of traditional psychoeducational programs.

2. The impact of interventions in the rehabilitation of young and adult offenders

In 1974, Martinson, in his famous paper on the rehabilitation of antisocial individuals entitled *What works? – Questions and answers about prison reform*, stated that “ (...)

education at its best, or psychotherapy at its best, cannot overcome, or even appreciably reduce, the powerful tendency for offenders to continue in criminal behavior” (p. 49). Later publications (Blagg & Smith, 1989; Brody, 1976; Lipton, Martinson, & Wilks, 1975; Wilks & Martinson, 1976) sustained that *nothing works* in the rehabilitation of offenders.

Investigations supporting these statements were mainly efficacy studies of treatments based mostly in corrective and punitive strategies (Andrews, 1995; Andrews & Bonta, 2010a; Andrews et al., 1990; Hoge, 2009; McGuire, 2006; Quay, 1987). It has been systematically proven, however, that such strategies are associated with increased criminal recidivism rates (Andrews, 1995; Andrews & Bonta, 2010a; Andrews et al., 1990; Caldwell & Rybroek, 2005; Lipsey, 1995, 2009; Lipsey, Howell, Kelly, Chapman, & Carver, 2010; McGuire, 2001, 2006; McGuire & Priestley, 1995). Based on these kinds of interventions, the conclusion that all efforts in the rehabilitation of young and adult offenders are useless seems very straightforward. Hence, such studies presented several methodological flaws (Hoge, 2001; Lösel, 1995; McGuire, 2008). Since then, theoretical models have become more complex and accurate, and research has evolved to more reliable methods. Several efforts led to a considerable amount of outcome research testing whether psychoeducational rehabilitation programs had or not impact on recidivism rates.

Questioning the statements by Blagg and Smith (1989), Brody (1976), Lipton et al. (1975), Martinson (1974), and Wilks & Martinson (1976), other authors (Gendreau & Ross, 1979; Palmer, 1975; Thornton, 1987) conducted different reviews and concluded that treatment can effectively reduce criminal recidivism, with almost 50% of the studies showing positive effects of psychotherapeutic interventions. Nevertheless, the belief that nothing works was so deeply entrenched in the criminal justice system (McGuire & Priestley, 1995) that the discussion of whether rehabilitation of offenders would be possible remained for over a decade (Lösel, 1995). Intending to clarify this issue, several authors (Andrews et al., 1990;

Garret, 1985; Lipsey, 1995; Lipsey & Wilson, 1998; Lösel, 1995; Redondo, Garrido, & Sánchez-Meca, 1997; Redondo, Sánchez-Meca, & Garrido, 1999) carried out meta-analytic studies to revise the research results in this field.

The first meta-analytical study with offenders was by Garret (1985), evaluating the impact of institutional interventions in delinquent youths. The author reviewed 111 studies carried out between 1960 and 1984, describing treatment programs in residential inpatient settings. In total, 13,000 individuals were included, with an average age of 15.8 years. Results suggested an average reduction of 18% in criminal recidivism rates.

A meta-analysis by Lipsey (1995), based on 400 treatment outcome studies, including over 40,000 youth offenders, compared changes in delinquent behavior in experimental group subjects and controls (treatment as usual or different intervention). After a six month follow-up, controls had an average recidivism rate of 50%, while subjects from the experimental group had an average rate of 45%. Reducing 5% on a 50% base is equivalent to an average global reduction of 10%. Although such results seem modest, they are, according to Lipsey (1995) “within the range of effects viewed as significant in medical treatment and other such domains” (p. 67). Identical reductions in recidivism rates were found in the meta-analyse by Andrews et al. (1990), Lipsey and Wilson (1998), and Lösel (1995).

In a review by Lipsey (1995), assessing the impact of interventions in delinquency focusing on other variables than criminal recidivism, average treatment effects were found for psychological adjustment (28%), interpersonal adjustment (12%), school attendance (12%), academic performance (14%), and vocational performance (10%). Therefore, we can observe positive treatment effects in experimental groups (between 10 and 30%) not only in recidivism rates, but also in different areas of the individual’s social ecology. Recent findings (e.g., Morgan et al., 2012) showed positive treatment effects in relevant dimensions such as psychopathology, interpersonal adjustment, and behavioral regulation.

In another review of meta-analytic studies in European Countries, Redondo et al. (1997) analyzed youth and adult treatments and found a global effect of 15% in reduction of recidivism rates. The same authors (Redondo et al., 1999) later observed a global effect of 12% in recidivism reduction in a meta-analytic study involving 32 European countries after a two year follow-up.

At a first glance, these results may seem fairly modest. However, it is important to stress that symptom reduction to this same extent is enough to legitimize, in many countries, the prescription of several drugs. On the other hand, it is important to highlight that meta-analytic studies encompass several types of programs; and because they include a large number of studies, programs of different contents and variable length, which are based on different conceptual models and approaches, are undifferentiated. There are, therefore, strong reasons to consider that the efficacy could be improved if interventions: (a) were extended in time (enough to promote and reinforce changes); (b) adhered to a progressive change strategy (through the path of least resistance to change); (c) considered the associations between different targets and levels of intervention (from behavioral regulation to change in cognitive distortions and core beliefs about the self and others).

3. Factors affecting positive outcomes

As stated by McGuire (2006), intervention effects in recidivism reduction are, on average, positive. This positive impact is mediated by several variables (Landenberger & Lipsey, 2005; Lipsey, 1995, 2009; Lipsey et al., 2010): (a) nature of the interventions; (b) treatment length; (c) delivery settings; (d) staff qualifications; and (e) participants characteristics.

Considerable research (Andrews, 1995; Andrews & Bonta, 2010a; Andrews et al., 1990; Borum & Verhaagen, 2006; Farrell & Flanner, 2006; Garret, 1985; Genovés, Morales,

& Sánchez-Meca, 2006; Gilbert & Daffern, 2010; Lipsey, 1995; Lipsey & Wilson, 1998; MacKenize, 2006; Lösel, 1995; McGuire, 2001; McGuire et al., 2008; Redondo et al., 1997; Redondo et al., 1999) provides evidence that the most efficacious treatments include behavioral and concrete components, aimed at a set of skills and, therefore, multimodal in nature. According to Lösel (2001), the average effect resulting from these approaches is an approximately 20% in recidivism reduction. A meta-analysis (Izzo & Ross, 1990) of 46 studies of intervention programs for youths with deviant behavior showed that programs including a cognitive component are twice as effective as those that do not. Behavioral programs with a cognitive component are the most effective, since they address attitudes, values and beliefs underlying antisocial behavior (Gendreau & Andrews, 1990). Other studies have underlined the efficacy of cognitive programs not only in recidivism reduction (Pearson, Lipton, Cleland, & Yee, 2002), but also in correcting cognitive distortions (Bogestad, Kettler, & Hagan, 2009), and cognitive restructuring at schematic levels underlying dysfunctional social information processing (Wilson, Bouffard, & MacKenzie, 2005).

There are also several programs with little or no empirical support. Among these, there are vocational training activities, which do not lead to genuine employment perspectives, and the “intimidation programs”, based on direct confrontation with the consequences of transgression (McGuire, 2006). There is also scant empirical support for the effectiveness of psychodynamic approaches, non-directive counseling, community therapy, and other methods based on promoting insight to reduce recidivism (Andrews et al. 1990, Garrett, 1985; Lipsey, 1995; Lipsey & Cullen, 2007; Lösel, 1995, 2001; McGuire, 2001, 2006, 2008).

Another factor influencing positive outcomes is the treatment length that, according to Lipsey (1995), should last over 26 weeks, allowing two or more weekly encounters and/or over 100 hours of contact. Longer and more intense treatments may be more beneficial to

individuals with antisocial behavior, considering their chronic resistance to change their attitudes and behaviors (Abrunhosa, 2007). These suggestions seem to be valuable, since greater time may give enough opportunities to: (1) counter deeply entrenched maladaptive cognitive and behavioral patterns, (2) reinforce change, and (3) promote the generalization of the acquired skills to ecologically valid contexts.

The context where intervention occurs – institutional *vs.* community setting – may have an impact on the intervention's efficacy. In fact, several studies suggest that treatment in community settings is more effective (Andrews et al., 1990; Lipsey & Wilson, 1998; Lösel, 1995; McGuire, 2006; Redondo et al., 1997). However, a meta-analysis by Antonowicz and Ross (1994) compared these two contexts and found no significant differences between them. The lack of consensus about this issue may be explained by different sample characteristics, and type, duration, and quality of treatment implementation. Actually, even well-designed programs may have reduced or no effects at all, when implemented inadequately (Blackburn, 1993; Evans-Chase & Zhou, 2012; Landenberger & Lipsey, 2005; Lipsey et al., 2010; McGuire, 2001). Thus, it is important to assess whether an intervention program has sufficient integrity; that is, if it is planned, proposed, and implemented in the correct manner.

Besides treatment integrity, staff qualification is a key-factor to be addressed (Dowden & Andrews, 2004). Any professional that deals with antisocial individuals must be previously educated and acquire the specific theoretical framework and practical knowledge about this population and the institution in which they work. This can be done with proper training on how to interact with antisocial and aggressive individuals, on how to cope with typical interpersonal situations in forensic settings, and also by acknowledging the ethical and deontological issues that will arise in their practice. On the other hand, it is essential that all the institutional staff gets are involved in the implementation and assessment of any intervention.

Participant's characteristics, such as age, ethnicity, and history of prior convictions, may also be related to positive intervention effects. Lipsey (1995) states that the general association pattern is that high-risk youths (older and with prior convictions) show a more significant reduction in delinquency when compared to low-risk youths. This may be due to the fact that low-risk individuals have a smaller margin of improvement (Lipsey, 1995). In a meta-analysis by Garret (1985), results sustain that younger individuals, less involved in delinquent lifestyles, benefitted more from the interventions. In spite of these contradicting data, it seems important to acknowledge that the association between age and criminal recidivism is weak, being the average treatment effects the same regardless of subjects age (McGuire, 2006).

Concerning ethnicity, McGuire (2006) states that research is inconclusive, because most subjects are of African ethnicities, and this does not allow adequate comparative studies on the influence of ethnicity on treatment outcome. With regard to the type of transgression, Redondo et al. (1997) point to lower effects in crimes against property (theft, robbery, burglary or extortion) or drug-related, compared to crimes against people (physical violence and/or sexual assault). Nevertheless, not many studies addressed this issue, thus, the conclusions by Redondo et al. (1997) should be carefully analyzed.

With the publication and dissemination of a considerable number of meta-analytic studies, there has been a shift in the scientific discussion about the efficacy of psychoeducational interventions in the rehabilitation of antisocial individuals. Instead of debating whether interventions are effective in reducing recidivism rates, the current focus is on how to maximize the positive effects that were found so far, by improving intervention methods, targets for change, and the quality of program's delivery.

4. The principles of effective interventions

There has been considerable consensus that if an intervention's development and implementation follows a given set of principles, the effect sizes of program's outcomes can be maximized (McGuire, 2006, 2011). In other words, effective interventions have a number of common features that Andrews et al. (1990) called "human service principles". By listing the features that could increase effect sizes, these authors concluded that their combination could produce a complimentary effect corresponding to a 53% recidivism rate reduction. Therefore, when interventions are adequately conceived and delivered, it is possible to achieve greater effect sizes (McGuire, 2006, 2011).

Experts who have reviewed this area of research agree that the main features in criminal justice interventions having a chance significant impact on reducing recidivism rates are the following:

- a) **Theory and empirical base:** It is more likely that an intervention's efforts are more successful if it is based on criminal behavior theories that are conceptually sound and empirically validated (Andrews, 1995; Andrews & Bonta, 2010a; Andrews, Bonta, & Wormith, 2006; Andrews & Dowden, 2005; Lipsey, 1995; Skeem, Manchak, & Peterson, 2011).
- b) **Risk assessment:** Assessment of risk levels is generally viewed as a good practice that makes it possible to allocate subjects at different levels of intervention intensity. Risk assessment is usually based on the individual's criminal history, such as age of first criminal charge or assault, and the total number of formal accusations (Andrews, 1995; McGuire, 2006). More intensive interventions should be applied to persons evaluated as being at higher risk of recidivism (Blanchette & Brown, 2006; Bourgon & Armstrong, 2005; Landenberger & Lipsey, 2005; Lipsey, 2009; Lipsey et al., 2010; McGuire & Priestley, 1995; Ward, Mesler, & Yates, 2007). This has been called "risk

principle” (Andrews, 1995; Andrews & Bonta, 2010a, 2010b; Andrews & Dowden, 2005; Andrews et al., 1990; Andrews et al., 2006; Dowden & Andrews, 2000, 2004), and appears to be appropriate for both youth and adult offenders.

- c) **Risk factors as target for change:** Research on the etiology of antisocial behavior suggests that some social interaction patterns, social and cognitive skills, attitudes, (among other factors), are associated with its origin and maintenance (Andrews & Bonta, 2010b; Andrews et al., 2006; da Motta, Brazão, & Rijo, 2012; Dodge & Schwartz, 1997; Eron, 1997; Patterson, Reid, & Dishion, 1992; Reid & Eddy, 1997; Skeem, Manchak, & Peterson, 2011; Rijo & Sousa, 2004; Rijo et al., 2007). If the point is to make a difference when working with aggressors in trying to reduce criminal recidivism, these factors should be selected as targets of treatment (Evans-Chase & Zhou, 2012; Skeem et al., 2011). Because these kinds of variables fall into the dynamic risk factors category (thus, changeable), they should be a priority in any rehabilitation effort (Andrews, 1995; Andrews & Bonta, 2010b; Andrews et al., 2006; Dowden & Andrews, 2004; McGuire & Priestley, 1995).
- d) **Multiple targets:** Given the multiple factors contributing to the deviant behavior, researchers (Andrews, 1995; Andrews & Bonta, 2010a, 2010b; Andrews & Dowden, 2005; Andrews et al., 1990; Andrews et al., 2006; Borum & Verhaagen, 2006; Farrell & Flanner, 2006; Garret, 1985; Genovés et al., 2006; Gilbert & Daffern, 2010; Landenberger & Lipsey, 2005; Lipsey, 1995, 2009; Lipsey & Wilson, 1998; Lipsey et al., 2010; Lösel, 1995; MacKenize, 2006; McGuire, 2001, 2006, 2008, 2011; McGuire et al., 2008; Redondo et al., 1997; Redondo et al., 1999) consistently sustain that effective interventions should address several components and different levels, targeting the whole range of risk factors that can actually be changed. Interventions that successfully accomplish this can be designated as “multimodal”.

- e) **Sensitivity:** Criminal justice intervention programs are among the most sensitive approaches, as there are efforts to promote the participation, interest, motivation, and support in participants (Andrews, 1995; Andrews & Bonta, 2010a, 2010b; Andrews & Dowden, 2005; Andrews et al., 1990; Andrews et al., 2006). Rehabilitation efforts work better if they have concrete goals and well-structured content (Lipsey, 1995; Morgan & Flora, 2002) in order to promote more adaptive skills. Professionals should be highly capable in providing support and able to develop healthy interpersonal relationships that are based on cooperation and have clear boundaries – general sensitivity. Intervention strategies should also be adapted to participants’ diversity, such as age, gender, ethnicity, sexuality, language, and learning styles – specific sensitivity (McGuire, 2006).
- f) **Integrity:** Intervention programs should adhere to the program’s philosophy, structure and methods in order to assure that any implementation of a certain program maintains its integrity. Intervention strategies seem to work better when continuously evaluated (Belcher, 2013; Lipsey, 1995). Ongoing data collection to assess intervention outcomes helps to make clear its purpose and to keep it rigorous. Such features are called intervention integrity or reliability (Hollin, 1995; Hollin & Palmer, 2005), which should be systematically monitored and verified (McGuire & Priestley, 1995).
- g) **Community setting:** Andrews (1995) recommends the use of community-based interventions whenever possible, and preferably in natural contexts (e.g., family). Resources should be directed at primary or developmental prevention, which includes interventions with families and children (e.g., economically at risk families or neighborhoods) to prevent delinquency, mental health problems, and drug abuse in the long term (Blackburn, 1993; Hoge, 2001).

At a strategic level, policy-makers and coordinators managing a set of programs and services provided in any criminal justice system should take these principles into account when selecting appropriate interventions (Andrews, 1995). These principles should also be respected when assessing integrity and/or intervention outcomes (McGuire, 2006).

5. From traditional psychoeducational interventions to a new cognitive-interpersonal approach: The Growing Pro-Social Program

Generally, cognitive-behavioral interventions used in the rehabilitation of young and adult offenders consist of a structured psychoeducational group program. This includes a large number of sessions, aiming at the development of different skills: social skills and problem-solving, negotiation skills, critical reasoning, anger control, creative thinking, and/or development of personal values (e.g., Ross, Fabiano, Garrido, & Gómez, 1993).

Current research shows that the most effective programs are those including the development of cognitive-interpersonal skills (Bogestad et al., 2009; Gendreau & Andrews, 1990; Izzo & Ross, 1990; Pearson et al., 2002; Wilson et al., 2005). Although the existing proposals are based on a cognitive theoretical framework, they do not assume the cognitive perspective on the human functioning as a whole (Rijo et al., 2007). That is, they do not identify what should be the focus of change and what actually causes change. Nor define the relationship between the variables that they try to modify during intervention (Rijo, da Motta, & Brazão, in press; Rijo & Sousa, 2004; Rijo et al., 2007). Traditionally, social skills, anger control, and cognitive distortions are addressed as if they were independent from one another (i.e., completely unrelated skills). According to the cognitive perspective of human behavior, cognitive distortions function as information processing biases, influencing the attribution of meaning to reality and serving core assumptions about the self and the others. In this sense, it is of little use to learn anger control strategies when there is no change in social information

processing. In other words, overt behavior and the triggering of disruptive emotional reactions are closely associated with a certain way of processing the available social information and giving meaning to reality. Programs design and development should take these interrelations into account and be capable of promoting change in an integrative way.

Most programs have highly educational approach, and experience tells us that a predominantly educational intervention tends to be seen as monotonous, requiring too much attention and concentration, which is usually avoided by more dysregulated individuals. Additionally, even when participants get involved in the program's tasks and sessions, they can still maintain high levels of emotional avoidance and resistance to change, if those same tasks only require reasoning and problem-solving at a theoretical level. Besides, if generalization of the developed skills to other contexts is a goal, treatment tasks should parallel real life as closely as possible. Intervention with offenders should incorporate experiential and dynamic features, aimed to minimize difficulties and resistances and to promote change in ecologically valid real-life situations.

Another frequent misconception in traditional approaches to rehabilitation is the assumption that the majority of antisocial individuals have deficits in social skills. Clinical practice and research have shown that many aggressors do not present social deficits, and any effort of prevention and rehabilitation should focus more on the question of whether certain skills are used, as well as the frequency, context, and purpose with which they are employed (Rijo & Sousa, 2004).

In an effort to overcome some of the limitations of the current approaches, the Growing Pro-Social – GPS (Rijo et al., 2007) program was developed to be used in the prevention of antisocial behavior and in the rehabilitation of delinquent youths, adapting as much as possible its contents and methodology to the characteristics of the target population, and to the principles of effective interventions.

The theoretical framework underlying GPS is based on a cognitive-interpersonal perspective of the origins and maintenance of deviant behavior. This cognitive conceptualization refers to dysfunctional core schemas, and cognitive distortions and cognitive products leading to particular interpretations of events underlying tendencies to action, typical dysfunctional attitudes, and patterns of aggressive behavior. Thus, changes in dysfunctional behavior should reflect changes in cognitive functioning (i.e., in the modification of dysfunctional core beliefs underlying social information processing biases).

Early Maladaptive Schemas – EMS (Young, 1990; Young, Beck, & Weinberger, 1993; Young & Linderman, 1992; Young & Klosko, 1994; Young, Klosko, & Weishaar, 2003) have been proposed as dysfunctional cognitive core structures, developed in the early stages of life from toxic experiences with significant others, and connected to disruptive emotions when triggered. These schemas tend to stay unchanged over one's lifetime and individuals develop maintenance, avoidance, and compensation processes in order to confirm their own schemas. EMS have been studied as core cognitive constructs explaining the origins and maintenance of personality disorders (Ball & Cecero, 2001; Jovev & Jackson, 2004; Nordahl, Holthe, & Haugum, 2005; Petrocelli, Glaser, Calhoun, & Campbell, 2001a; Petrocelli, Glaser, Calhoun, & Campbell, 2001b). Further, schema-focused therapy has proven to be effective in reducing severe personality disorders malfunctioning (Farrell, Shaw, & Webber, 2009; Giesen-Bloo et al., 2006; Nadort et al., 2009; van Asselt et al., 2008). More recently, research addressed the issue of EMS underlying antisocial behavior (Bernstein, 2008; Bernstein, Arntz, & Vos, 2007). There is some evidence that, from a cognitive point of view, EMS related to antisocial behavior result from deviant trajectories in three main areas of human development: (1) disconnection and rejection – emotional deprivation, abandonment, mistrust/abuse, defectiveness/shame, and social isolation/alienation; (2) impaired autonomy and performance – failure; and (3) impaired limits – entitlement and

insufficient self control (Bernstein, 2008; Rijo & Sousa, 2004; Rijo et al., 2007). The ultimate goal of GPS is to reduce the prominence of these biases-inducing structures on the social information processing, leading to more adjusted emotional, motivational, and behavioral patterns.

Clinical practice shows that, when dysfunctional core beliefs are triggered, the individuals tend to resort to avoidance processes (voluntarily or involuntarily) in an attempt to block the experience of disruptive schema-related negative emotions. In order to circumvent, at least partially, any biases resulting from the cognitive and emotional avoidance processes, GPS' change process resort mainly to experiential tasks. In these exercises, individuals experience emotional triggering, become aware of tendencies to action, and gain knowledge about the way their mind works when core issues are triggered. Usually, sessions follow a philosophy of first "feel", second "think about it", and third "try to change it". This strategy tries to overcome the aforementioned limitations with the traditional educational and rational approaches.

Attending to the interrelation between cognition, emotions, and behavior, emotional regulation is addressed throughout several sessions focusing on the function and meaning of the emotions. Participants are guided to discover the richness and diversity of the human emotional experience, viewing emotions as serving an evolutionary purpose. All emotions are conceptualized as adaptive and useful for human survival, and for the adaptation of any human being throughout the lifespan. In this sense, there are no negative emotions, but instead, emotional responses should be adjusted to specific situational needs. By leading participants in the experience of different emotions, and increasing knowledge about their usefulness, GPS tries to promote emotional recognition and regulation in a close connection to cognitive functioning.

The first sessions of the program focus on human communication and interpersonal relationships. At a first glance, it may seem that interpersonal communication and social skills are being promoted. However, the main purpose of these sessions is to lead participants to think about the way their minds work when in a relationship with the mind of others, through guided discovery and Socratic questioning strategies. In other words, these contents introduce flexibility in the dominant thinking style (strictly connected to aggressive behavior).

The program includes 40 weekly sessions, each lasting about 90 minutes. Sessions must be carried out by two professionals, at least one of whom is skillful in the use of cognitive-behavioral therapy techniques. Sessions are grouped into five sequential modules: (1) human communication, (2) interpersonal relationships, (3) cognitive distortions, (4) function and meaning of emotions, and (5) dysfunctional core beliefs (see Table 1). The program also provides follow-up sessions that can be carried out optionally.

Table 1 about here

As stated above, new approaches to the rehabilitation of young and adult offenders should include a clearly defined strategy of change, identifying targets for change, and assessing outcomes at other levels than recidivism rate reduction. GPS' ultimate goal is to promote change at a deeper level of the cognitive functioning: changing dysfunctional core beliefs about the self and others. This is done accomplished a gradual strategy of change which begins by: (1) increasing knowledge about human communication (acknowledging the ambiguity of human interactions), (2) changing maladaptive interpersonal behavior patterns, then (3) learning about thinking errors and trying to counteract them, later (4) experiencing and understanding the way emotions work and the influence they exert over our mind and behavior and, finally, (5) relating our actual problems and malfunctioning with core issues

influencing the way we act and react towards others. This gradual strategy of change obliges to deliver the program in a predefined sequence of modules and sessions.

Outcome research on GPS efficacy has been carried out both with young offenders and adult male prison inmates. An abbreviated version of the program (condensed into 25 sessions) has been delivered to youths in Portuguese juvenile correctional facilities. Results so far point out to significant clinical changes in anger variables, aggression and hostility. Also, there was a decrease of the endorsement of cognitive distortions, as well as a decrease in the prominence of the EMS underlying antisocial behavior (Brazão, 2011; Firme, 2009; Rijo, da Motta, Brazão, Rosa, & Firme, 2011a, 2011b; Rijo et al., in press).

GPS has also been selected as a universal delivery intervention program to be used by the national prison services. In the case of adult prison inmates, the full 40-session version of the program is being implemented. The first clinical trials (da Motta, Brazão, Rijo, Ramos, & Pinto-Gouveia, 2013; da Motta, Rijo, & Brazão, 2012; Ramos, da Motta, Brazão, Rijo, & Pinto-Gouveia, 2013), comparing randomly assigned treatment group subjects with controls, showed that a greater percentage of subjects from the treatment group showed significant clinical improvements on anger, external shame, paranoia, and biased information processing, while controls did not improve on these variables. Additionally, the majority of the controls presented some degree of clinical deterioration in the studied variables.

Research on GPS efficacy is a work in progress, and future studies will test these outcomes with larger samples and over a one-year follow-up period.

6. Discussion

To counteract the predominant idea in the 1970's that nothing works in the rehabilitation of individuals with antisocial behavior (Blagg & Smith, 1989; Brody, 1976; Lipton et al., 1975; Martinson, 1974; Wilks & Martinson, 1976), a considerable number of

meta-analytic studies (Andrews et al., 1990; Garret, 1985; Lipsey, 1995; Lipsey & Wilson, 1998; Lösel, 1995; Redondo et al., 1997; Redondo et al., 1999) confirmed the effectiveness of psychoeducational or multimodal programs in reducing recidivism rates in youth and adult offenders. Overall, although modest (10 to 20%), effects were significant (Lipsey, 1995). More recent studies (Andrews & Bonta, 2010a; Andrews & Dowden, 2005; Andrews et al., 2006; McGuire, 2006, 2011; Skeem et al., 2011) advocate that the effect size could be maximized if programs shared a set of common features that Andrews et al. (1990) called “human service principles”.

Although there is currently a better understanding of what are effective interventions, a substantial amount of work remains to be done (Farrell & Flannery, 2006). Because most studies have focused on recidivism rates as the main outcome measure, little is known about the mechanisms underlying change (Skeem, Polaschek, & Manchak, 2009). Furthermore, few studies have focused on the effective staff characteristics, or on the best practices to be used in the delivery of these programs (Dowdens & Andrews, 2004). This issue should be addressed by research in this field, given that several authors (Blackburn, 1993; Evans-Chase, & Zhou, 2012; Landerberger & Lipsey, 2005; Lipsey et al., 2010; McGuire, 2001) argue that interventions may have reduced or no effects at all when implemented inadequately.

Group-based intervention programs for the prevention and rehabilitation of antisocial individuals differ greatly in goals, theoretical framework, length, number of sessions, contents and skills to promote, as well in the selected methodologies and format of program delivery. The most disseminated and validated programs directed toward the reduction of recidivism rates are structured group-based cognitive-behavioral rehabilitation approaches (Andrews, 1995; Andrews & Bonta, 2010a; Andrews et al., 1990; Bogestad et al., 2009; Borum & Verhaagen, 2006; Farrell & Flanner, 2006; Garret, 1985; Izzo & Ross, 1990; Gendreau & Andrews, 1990; Genovés et al., 2006; Gilbert & Daffern, 2010; Lipsey, 1995;

Lipsey & Wilson, 1998; Lösel, 1995, 2001; MacKenize, 2006; McGuire, 2001; McGuire et al., 2008; Pearson et al., 2002; Redondo et al. 1997; Redondo et al., 1999; Wilson et al., 2005). Typically, these programs are divided into different modules, each one encompassing several sessions. These sessions address different issues that research has shown to be associated either with antisocial behavior, or risk or maintenance factors. Abilities promoted in these kind of programs usually include: social skills, communication skills, reasoning, moral development, emotional control, and cognitive abilities (Ross et al., 1993; Wilson et al., 2005). Nevertheless, these programs tend to be designed as a sequence of skills training sessions, thus ignoring the interdependences between the addressed variables (Rijo & Sousa, 2004; Rijo et al., 2007). For example, emotional control sessions are carried out as if emotional control was totally independent from social reasoning or interpersonal behavior. Another misconception of traditional psychoeducational approaches has to do with the methodologies usually adopted: a tendency to repeat school methods, giving preference to reasoning and school-like activities and tasks (paper and pencil), rather than experiential tasks, which would be more adequate to increase self-knowledge as well as cognitive, emotional, and behavioral change.

These aforementioned shortcomings led to the development of a new rehabilitation program, the GPS – Growing Pro-Social (Rijo et al., 2007), a group format intervention for individuals with antisocial behavior, designed to be used both with secondary or tertiary prevention purposes. Recognizing the nature of aggressive and antisocial behavior, as well as its cognitive-behavioral maintenance factors (Dodge & Schwartz, 1997; Eron, 1997; Patterson et al., 1992; Reid & Eddy, 1997), the authors used their clinical expertise in treating personality disordered people having problems with the justice system to select the GPS contents and methodology. When compared to similar psychoeducational programs, GPS seems to achieve a greater degree of sophistication and theoretical complexity. Theoretical

innovations of GPS refer to the Early Maladaptive Schemas (Young, 1990; Young & Linderman, 1992; Young & Klosko, 1994; Young et al., 1993; Young et al., 2003) or dysfunctional core beliefs about the self and others, proposed as underlying antisocial behavior (Bernstein, 2008; Rijo & Sousa, 2004; Rijo et al., 2007). Another innovation is also the recurrent use of experiential strategies, assuming that the triggering of specific emotional patterns will increase self-knowledge and facilitate change. GPS follows a strategy of gradual change, assuming as the ultimate goal the modification of the previously mentioned dysfunctional core beliefs. By increasing the cognitive and emotional self-regulation, GPS proposes a model of progressive change, able to achieve a stable and healthy interpersonal behavior functioning.

Outcome research studies to date point to the ability of the program to improve the psychological functioning of participants, namely improvements on anger, external shame, paranoia, biased information processing, and dysfunctional core beliefs worked throughout GPS (Brazão, 2011; da Motta et al., 2012; da Motta et al., 2013; Firme, 2009; Ramos et al., 2013; Rijo, et al., 2011a, 2011b; Rijo, et al., in press). Research about GPS' efficacy in promoting cognitive, emotional, and behavioral change is still a work in progress and studies with larger samples are being carried out, both with juveniles and male adult offenders. Follow-up investigation are also planned and if this research addresses change in cognitive and emotional correlates of antisocial behavior, the program's impact on criminal recidivism should also be a topic for future studies.

Adhering to the principles of effective interventions, the systematic monitoring and data collection to assess the intervention's efficacy is a good strategy to ascertain the program's integrity. Practice and research would both benefit from efficacy studies of existing interventions. A more systematic evaluation of the processes and variables involved

in changes observed in current interventions in forensic settings would further clarify what are the “active ingredients” that lead to more effective and durable outcomes.

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Table 1.

GPS Modules and Contents

Modules	Number of sessions	Contents summary
Initial session	1	Presentation of the participants, the structure and methodology of the program.
1.Human communication	5	The communication process and its obstacles; verbal and non-verbal communication skills, the ambiguity of human communication; the (in)congruences between digital and analogical languages.
2.Interpersonal relationships	10	Behavioral styles (assertive, aggressive, passive and manipulative) in relationships; self-concept and interpersonal behavior; ideas about the others and interpersonal behavior; specific interpersonal contexts and assertive behavior; negotiation as a strategy to deal with conflicts.
3.Cognitive distortions	6	Understanding cognitive distortions (thinking errors); identifying and changing cognitive distortions: Selective Abstraction, Overgeneralization, Mind Reading, Crystal Ball, Minimization, Disqualifying the Positive Experiences, Dichotomous Thinking, Labeling and Personalization.
4.Function and meaning of emotions	7	The diversity of the emotional experience; the nature and function of emotions: sadness, shame, fear, anger, guilt, and happiness.
5.Dysfunctional core beliefs	10	The role of core beliefs about the self and the others; dysfunctional core beliefs and their influence in giving meaning to reality; identifying and changing relevant core beliefs: Failure, Social Isolation/Alienation, Mistrust/Abuse, Defectiveness/Shame, Emotional Deprivation, Abandonment/Instability, Grandiosity/Entitlement; fighting core belief's influences in thoughts, emotions, and behavior.
Final session	1	Reflection and consolidation of learning, and generalization of gains made during the program.

Note. Adapted from Gerar Percursos Sociais (GPS), um programa de prevenção e reabilitação para jovens com comportamento desviante – bases conceptuais, estrutura e conteúdos [Growing Pro-Social (GPS), an intervention and rehabilitation program for youths with deviant behavior – theoretical framework, structure and contents], by D. Rijo and M. N. Sousa, 2004, *Infância e Juventude*, 4(2), p. 58.