Age differences in the severity, impact and relative importance of dynamic risk factors for recidivism

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A B S T R A C T

Research in adolescent populations has shown that the severity, impact, and relative importance of dynamic risk factors for recidivism changes over the course of adolescence. This study examined whether there were age differences in the severity, impact, and relative importance of dynamic risk factors for recidivism in an adult offender population. The sample consisted of 8665 Dutch offenders and was divided into four age groups: 18–25 years old, 26–30 years old, 31–40 years old, and 41 + years old. The results showed that the severity and impact of dynamic risk factors varied across the age groups. An increase of the impact of dynamic risk factors was found over the course of adulthood, indicating that dynamic risk factors had a larger predictive power for recidivism in the older age groups. The relative importance of the risk factors also varied across age. In late adolescence, recidivism was most strongly predicted by problems in the education, alcohol use, and peer domains, whereas in adulthood, problems with drugs and alcohol were the most important predictors of recidivism. Results emphasize the importance of directing offender treatment at high risk offenders, and the focus on age specific criminogenic needs to maximize the effect of treatment.

1. Introduction

In order to reduce the risk of recidivism among offenders, it is important to have knowledge about which dynamic (treatable) risk factors most strongly associate with recidivism. According to the need-principle of effective offender rehabilitation, interventions will be most successful in reducing recidivism when addressing the dynamic risk factors most strongly related to recidivism (Andrews & Bonta, 2010a). Recent studies on adolescent offender populations have shown that the strength of the relationship between risk factors and recidivism depends on the age of the offender (Van der Put et al., 2010; Van der Put et al., 2012), implying that rehabilitative efforts should take these age differences into account in order to increase their effectiveness. To our knowledge, there are very few studies on age differences in the relationship between risk factors and recidivism in adult offender populations. However, this knowledge is very important in order to refer offenders to the appropriate rehabilitative interventions. Therefore, the aim of our study was to examine age differences in the relationship between dynamic risk factors and recidivism in adult offenders.

1.1. Dynamic risk factors

The need principle is part of the risk-need-responsivity (RNR) model (see Andrews & Bonta, 2010a) which has been widely regarded as the most important model for guiding offender assessment and treatment (e.g., Blanchette & Brown, 2006; Ward, Mesler, & Yates, 2007). This model states that there are three general principles for effective offender rehabilitation interventions: (a) the risk principle: the level of treatment intensity must be matched to the offenders' risk of recidivism, which means high-intensive interventions for high-risk offenders and minimal intervention for low-risk offenders; (b) the need principle: the intervention must target the criminogenic needs (dynamic risk factors); and (c) the responsivity principle: the style and mode of the intervention must be matched to the offender's personality, motivation, learning style and abilities (Andrews & Bonta, 2010a, 2010b; Andrews, Bonta, & Hoge, 1990). As stated in the RNR model, criminogenic needs are an important factor in referring offenders to the appropriate interventions to reduce recidivism. Criminogenic needs can be defined as dynamic (treatable) risk factors for recidivism. Meta-analyses of the risk and/or need factors with diverse offender groups have increased our knowledge of major, moderate, and minor need factors (Bonta, Law, & Hanson, 1998; Gendreau, Little, & Goggin, 1996; Hanson & Morton-Bourgon, 2004; Lipsey & Derzon, 1998). Examples of

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major need factors are antisocial personality pattern (e.g. weak self-control, impulsive, adventurous pleasure seeking, aggressive and irritable), antisocial cognition (e.g. attitudes, values and beliefs supportive of crime), antisocial associates and substance abuse (Andrews, Bonta, & Wormith, 2006). Minor risk factors are, among others, personal and/or emotional distress, physical health issues, and social class of origin (Andrews et al., 2006).

1.2. Severity, impact, and relative importance of dynamic risk factors

The severity of dynamic risk factors for delinquency and recidivism is dependent on the age of the offender. Loeber, Slot, and Stouthamer-Loeber (2008) show with their "developmental model of onset, accumulation, and continuity of risk factors", that the severity of risk factors for delinquency increases as children grow older, peaks during adolescence and then decreases throughout adulthood. Risk factors in the individual and family domain are most prevalent in early childhood. Peer and school risk factors appear in middle childhood, and community and work-related factors in adolescence and adulthood (Loeber et al., 2008).

It is not only the *severity* of risk factors that changes throughout life; we also see a change in the *impact* of the risk factors for recidivism. Recent studies in adolescent samples, for example, showed that the value of predicting recidivism of dynamic risk factors in the individual domain (attitude, skills, and aggression) and the social domain (school, family, relationships) decreased with age (Van der Put et al., 2010; Van der Put et al., 2012). In addition, Spanjaard, Van der Knaap, Van der Put, and Stams (2012) found an overall increase in the impact of risk factors from 18 to 29 years old, with the strongest increase for the alcohol domain. As a result of the decreasing or increasing impact of risk factors on recidivism, the potential effect of interventions aimed at these risk factors may also change (Andrews & Bonta, 2010a). Therefore, it is important to understand how the impact of dynamic risk factors for recidivism changes over the course of life.

The change in the impact of the various risk domains is not homogeneous. The *relative importance* of the risk factors changes as well: the impact on delinquent behavior of some risk factors decreases with age, while the impact of other factors increases. For example, the influence of peers on offenders' behavior tends to increase towards adolescence and the effect of parenting skills decreases as offenders grow older (Holmbeck, Greenley, & Franks, 2003; Loeber et al., 2008; Sampson & Laub, 1997; Stouthamer-Loeber et al., 1993; Van der Laan & Blom, 2006; Weijters, Vinke, Van der Logt, & Gerris, 2004). In early adolescence, family related risk factors are most strongly associated with recidivism whereas risk factors in the attitude, peer relationships and school domain are most strongly related to recidivism in late adolescence (Van der Put et al., 2010; Van der Put et al., 2012). Because little is known about age differences in the relationship between dynamic risk factors and recidivism in adult offender populations, the aim of the current study was to provide more insight in the severity, impact, and relative importance of dynamic risk factors for recidivism at different ages, ranging from late adolescence to late adulthood.

1.3. Theories on change in the severity, impact and relative importance of risk factors

Moffitt's dual taxonomy theory (1993) distinguishes between 'adolescence-limited' and 'life-course-persistent' offenders. The adolescence-limited offender exhibits antisocial behavior only during adolescence, and desists from crime after adolescence (Sampson & Laub, 2005; Farrington, 2003). Considering the high prevalence of antisocial behavior during adolescence, delinquency could be regarded as more or less normative behavior in adolescence. Adolescence-limited antisocial behavior is not so much caused by exposure to risk factors, and therefore, adolescence-limited antisocial behavior can hardly be predicted by the severity of risk factors. Life-course-persistent antisocial behavior starts at an early age and continues into adulthood. Life-course-persistent antisocial behavior is thought to be explained by individual factors (for example, psychopathic traits) that are subsequently reinforced by a high-risk environment (Fox, Jennings, & Farrington, 2015; Moffitt, 1993; Stouthamer-Loeber, Loeber, Wei, Farrington, & Wikström, 2002). It is expected that the relation between recidivism and dynamic risk factors will therefore be stronger in this group, and the prediction of life-course-persistent antisocial behavior based on risk factors is thus considered to be more accurate.

From childhood to adolescence, the proportion of adolescence-limited offenders increases towards a peak around 17 years old, and as juveniles get older, the proportion of adolescence limited offenders decreases. The number of life-course-persistent offenders remains relatively stable over age groups (Moffitt, 1993). Consequently, it is expected that the impact of dynamic risk factors in predicting recidivism will decrease from childhood to adolescence, and then increases from adolescence to adulthood. Over the course of life, the impact of dynamic risk factors for recidivism is expected to follow a U-shaped curve, with the bottom at 17 years old.

Previous studies have shown that the relative importance of dynamic risk factors for recidivism changes over the course of life (Spanjaard et al., 2012; Van der Put et al., 2010; Van der Put et al., 2012). This finding may be explained by principles from the developmental criminology. Each developmental stage is characterized by specific developmental tasks that need to be faced in order to successfully transit to the next developmental stage. For example, building safe attachment relations with caregivers is an important developmental task in early childhood. Gaining autonomy from parents, building prosocial friendships, and experiencing academic success is central in adolescence (Oudekerk, Allen, Hessel, & Molloy, 2015; Roisman, Masten, Coatsworth, & Tellegen, 2004). Further, whether a young adult is able to attain job and marriage stability, is predictive of their criminal behavior (Blokland & Nieuwbeerta, 2005; Sampson & Laub, 2005). These transitions, or "turning points" are influencing the chances of the emergence of or the desistance from crime (Sampson & Laub, 2005; Sampson, Laub, & Wimer, 2006). Because developmental themes vary over the course of life, the impact of these themes on recidivism could also change.

1.4. The current study

Taking the "developmental model of onset, accumulation, and continuity of risk factors" of Loeber et al. (2008), Moffitt's (1993) dual taxonomy theory, and theories on developmental criminology (Sampson & Laub, 2005) together, several implications with regard to the severity, impact, and relative importance of dynamic risk factors for recidivism are hypothesized for adult offender populations. First, we assume, in line with the "developmental model of onset, accumulation, and continuity of risk factors" of Loeber et al. (2008), that the severity of dynamic risk factors for recidivism declines with age. Second, based on Moffit's dual taxonomy theory (1993), it is hypothesized that a U-shaped curve of the impact of dynamic risk factors for recidivism can be expected, with – in general – bottoms out around the age of 17 years. Therefore, we assume that the impact of dynamic risk factors increases with age in adult offender populations.

Additionally, theories from developmental criminology (Farrington, 2003; Moffitt, 1993; Sampson & Laub, 2005) could imply change in the relative importance of dynamic risk factors over the course of life. We expect during adolescence and early adulthood the peer, and education and work domains become strong predictors of recidivism, whereas in middle and late adulthood the individual risk factors again become most important predictors of recidivism.

Ideally, abovementioned hypotheses should be tested in samples in which young offenders are being followed throughout life.