



UNIVERSIDADE D
COIMBRA

Pedro Fernandes dos Santos Pechorro

REINCIDÊNCIA CRIMINAL EM JOVENS DELINQUENTES
INTERNADOS EM CENTRO EDUCATIVO

Tese no âmbito do doutoramento em Psicologia, especialidade em Psicologia Forense, orientada pelo Professor Doutor Mário R. Simões, pela Professora Doutora Isabel Alberto e pelo Professor Doutor James V. Ray e apresentada à Faculdade de Psicologia e de Ciências da Educação da Universidade de Coimbra

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Ao devir dos alunos em mestres...

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“The state of the evidence concerning [juvenile] correctional treatment prompts a vast array of differing opinions. One extreme position posits that ‘nothing works’ while the other end of the continuum claims that some programs have very positive effects.”

(Lab & Whitehead, 1988, p. 60)

“First, while classical psychopaths have been shown to respond poorly to some traditional therapeutic interventions, it has yet to be established that ‘nothing works’ with this group.”

(Blackburn, 1993, p. 202)

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RESUMO

A investigação científica sobre reincidência criminal em jovens delinquentes está praticamente por fazer em Portugal, apesar de o país ter uma das taxas mais altas de jovens presos da Europa. A presente investigação teve como objetivos principais analisar a reincidência criminal, a sua relação com o constructo de psicopatia e validar novas medidas de psicopatia. Os participantes foram rapazes e raparigas provenientes de amostras forenses e escolares, aos quais foram aplicadas medidas de traços psicopáticos em formato de autorrelato e seguidos longitudinalmente após o fim da medida de internamento em Centro Educativo através de dados oficiais no caso da amostra forense. Os resultados para o primeiro ano de seguimento da amostra forense revelaram uma reincidência geral de 37.9% para os rapazes e de 18.4% para as raparigas, além de uma reincidência violenta de 20.3% para os rapazes e de 7.9% para as raparigas. Os resultados sugerem também que há limitações em termos da validade incremental das medidas de traços psicopáticos em formato de autorrelato na predição da reincidência quando se controlam outras variáveis criminais (e.g., frequência de crimes), apesar de alguns instrumentos parecerem promissores. A nível psicométrico foi desenvolvida uma medida breve do modelo triárquico de psicopatia, *Youth Psychopathic Traits Inventory – Triarchic – Short*, para utilização com jovens, que demonstrou boas propriedades em termos de validade, fiabilidade e invariância de medida. Adicionalmente foi validada a *Child and Adolescence Taxon Scale*, que revelou propriedades adequadas em termos de validade e fiabilidade que justificam a sua utilização com jovens portugueses.

Palavras-chave: crime; delinquência juvenil; modelo triárquico; psicopatia; reincidência

ABSTRACT

Scientific research on the criminal recidivism of young offenders is practically non-existent in Portugal, despite the fact the country has one of the highest rates of incarcerated juveniles in Europe. The main aims of the present investigation were to analyze criminal recidivism, its relation with the psychopathy construct and to validate new measures of self-reported psychopathy. The participants were boys and girls from forensic samples and school samples, who were assessed using measures of self-reported psychopathic traits, and were followed longitudinally after their release from the juvenile detention centers through official data in the case of the forensic sample. The results regarding the first year of follow-up of the forensic sample reveal a general recidivism rate of 37.9% for boys and 18.4% for girls, and also a violent recidivism of 20.3% for boys and 7.9% for girls. The results also suggest there are limitations in terms of the incremental validity of self-report measures of psychopathic traits in predicting recidivism when controlling for other criminal variables (e.g., frequency of offenses), although some instruments appear promising. From a psychometric perspective, a brief measure of the psychopathic model of psychopathy, the Youth Psychopathic Traits Inventory - Triarchic - Short, was developed for use with youths, which demonstrated good properties in terms of validity, reliability and measurement invariance. In addition, the Child and Adolescence Taxon Scale was validated, demonstrating adequate properties in terms of validity and reliability that justify its use with Portuguese youths.

Key-words: crime; juvenile delinquency; triarchic model; psychopathy; recidivism

LISTA DE PUBLICAÇÕES

- Pechorro, P., Seto, M., Ray, J., Alberto, I., & Simões, M. (in press). A prospective study on self-reported psychopathy and criminal recidivism among incarcerated male juvenile offenders. *International Journal of Offender Therapy and Comparative Criminology*. Doi: 10.1177/0306624X19849569. ISSN: 0306-624X; Impact factor: 1.871; Source: Journal Citation Reports®
- Pechorro, P., Ray, J., Alberto, I., & Simões, M. (submitted, under review). The utility of self-reported psychopathic traits in predicting recidivism among a sample of incarcerated female youths. *Current Psychology*. ISSN: 1046-1310; Impact factor: 1.468; Source: Journal Citation Reports®
- Pechorro, P., DeLisi, M., Alberto, I., Ray, J., & Simões, M. (2019). The Triarchic Model of Psychopathy among incarcerated male youths: A psychometric study. In M. DeLisi (Ed.), *Routledge International Handbook of Psychopathy and Crime* (pp. 265-275). New York, NY: Routledge.
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- Pechorro, P., DeLisi, M., Ray, J., Alberto, I., & Simões, M. (in press). A brief measure of the Triarchic Model of Psychopathy among community youths: Psychometrics and measurement invariance. *Psychology, Crime and Law*. Doi: 10.1080/1068316X.2019.1597095. ISSN: 1068-316X; Impact Factor: 1.460; Source: Journal Citation Reports®

Pechorro, P., Seto, M., Alberto, I., Ray, J., & Simões, M. (in press). The Childhood and Adolescent Taxon Scale – Self-Report: Validity among male and female youths from forensic and school contexts. *International Journal of Forensic Mental Health*. Doi: 10.1080/14999013.2019.1623349. ISSN: 1499-9013; Impact Factor: 1.271; Source: Journal Citation Reports®

1. INTRODUÇÃO GERAL

A presente tese de doutoramento tem como objetivo principal analisar a reincidência criminal em jovens delinquentes a cumprir medidas tutelar educativas institucionais nos Centros Educativos geridos pela Direção-Geral de Reinserção e Serviços Prisionais do Ministério da Justiça (DGRSP-MJ). Mais especificamente, pretende analisar a relação entre a reincidência criminal e o constructo da psicopatia tal como este se manifesta através de traços psicopáticos de personalidade em jovens delinquentes.

Adicionalmente, pretende-se proceder à validação psicométrica de instrumentos relacionados com o tema a ser investigado: (i) uma medida de traços psicopáticos de personalidade, o *Youth Psychopathic Traits Inventory – Triarchic* (YPI-Tri; Drislane et al., 2015; Pechorro, DeLisi, Alberto, Ray, & Simões, 2019; Pechorro, Simões, Alberto, & Ray, 2018; Pechorro, DeLisi, Ray, Alberto, & Simões, in press), e (ii) uma medida atuarial do comportamento antissocial persistente da psicopatia, o *Childhood and Adolescent Taxon Scale – Self-report* (CATS-SR; Harris, Rice, & Quinsey, 1994; Pechorro, Seto, Ray, Alberto, & Simões, in press; Pechorro, Seto, Alberto, Ray, & Simões, in press).

Pretende-se igualmente dar continuidade sistemática a estudos com outros instrumentos relevantes em contexto forense orientados para a avaliação de traços psicopáticos de personalidade como: (iii) o *Antisocial Process Screening Device* (APSD; Frick & Hare, 2001, incluindo a respetiva versão *self-report* APSD-SR; Caputo, Frick, & Brodsky 1999; Pechorro, Seto, Ray et al., in press; Pechorro, Ray, Alberto, & Simões, submitted; Pechorro, DeLisi, Alberto et al., 2019; Pechorro, Simões, Alberto, & Ray, 2018; Pechorro, DeLisi, Ray et al., in press); (iv) o *Youth Psychopathic Traits Inventory* (YPI; Andershed et al., 2002; Pechorro, Seto, Ray et al., in press; Pechorro, Ray, Alberto et al., submitted); e (v) o *Inventory of Callous-Unemotional*

Traits (ICU; Essau, Sasagawa, & Frick, 2006; Pechorro, Simões, Alberto, & Ray, 2018; Pechorro, DeLisi, Ray et al., in press; Pechorro, Seto, Alberto et al., in press).

Outros instrumentos igualmente importantes para o contexto forense são utilizados no âmbito da presente tese: (vi) o *Reactive-Proactive Aggression Questionnaire* (RPQ; Raine et al., 2006; Pechorro, Simões, Alberto, & Ray, 2018; Pechorro, DeLisi, Ray et al., in press; Pechorro, Seto, Alberto et al., in press); (vii) a *Barratt Impulsiveness Scale version 11* (BIS-11; Patton, Stanford, & Barratt, 1995; Pechorro, Simões, Alberto, & Ray, 2018); (viii) a *Basic Empathy Scale* (BES; Jolliffe, & Farrington, 2006; Pechorro, DeLisi, Alberto et al., 2019; Pechorro, Simões, Alberto, & Ray, 2018; Pechorro, Seto, Alberto et al., in press); e (ix) a *Social Anxiety Scale for Adolescents* (SAS-A; La Greca and Lopez, 1998; Pechorro, Simões, Alberto, & Ray, 2018; Pechorro, DeLisi, Ray et al., in press).

A pertinência deste trabalho emerge da manifesta escassez de estudos empíricos com amostras forenses em Portugal, especialmente com jovens delinquentes a cumprir medida em Centro Educativo ou detidos em Estabelecimento Prisional. Esta falta de estudos empíricos no contexto forense em Portugal é bem identificada na revisão de literatura realizada por Costa, Monteiro, Esgalhado, e Pereira (2017) sobre artigos científicos portugueses de psicologia forense publicados até ao ano de 2015 nas bases de dados *Web of Science* e SCOPUS. Esta revisão identificou somente 41 artigos, dos quais apenas cinco reportavam estudos empíricos com população forense juvenil (Pechorro, Poiares, Maroco, & Vieira, 2012; Pechorro, Gonçalves, Maroco, Nunes, & Jesus, 2014; Pechorro, Maroco, Gonçalves, Nunes, & Jesus, 2014; Pechorro, Poiares, Barroso, Nunes, & Jesus, 2015; Vilariño, Amado, & Alves, 2013). Foram ainda encontrados seis artigos relativos a estudos de adaptação e/ou validação de instrumentos, cinco dos quais com recurso a população forense juvenil (Pechorro,

Maroco, Poiares, & Vieira, 2011; Pechorro, Maroco, Ray, & Gonçalves, 2015; Pechorro, Barroso, Maroco, Vieira, & Gonçalves, 2015; Pechorro, Ray, Salas-Wright, Maroco, & Gonçalves, 2015; Pimentel, Quintas, Fonseca, & Serra, 2015).

A comunidade internacional na área da psicologia forense tem reconhecido recentemente a qualidade da investigação desenvolvida em Portugal. Na segunda edição do *Handbook of Psychopathy* (Patrick, 2018), em que se procede a uma revisão atualizada da investigação relevante efetuada a nível internacional sobre psicopatia, são citados nove artigos escritos em Portugal, sendo três deles relativos à população forense adulta (Gonçalves, 1999; Neves, Goncalves, & Palma-Oliveira, 2011; Pasion, Fernandes, Pereira, & Barbosa, 2017) e seis têm por referência a população forense juvenil (Pechorro, Vieira et al., 2013; Pechorro, Maroco, Poiares, & Vieira, 2013; Pechorro, Barroso, Maroco, Vieira, & Gonçalves, 2015; Pechorro, Maroco, Gonçalves, Nunes, & Jesus, 2014; Pechorro, Ray, Barroso, Maroco, & Gonçalves, 2016; Ribeiro da Silva, Rijo, & Salekin, 2012).

Apesar de alguns avanços recentes, é evidente a necessidade de promover a investigação em psicologia forense focada na realidade nacional, em aspetos particularmente prementes (reincidência criminal) e em um grupo relevante como é o dos jovens delinquentes. A delinquência juvenil apresenta uma tendência decrescente na Europa e na generalidade dos países ocidentais, que o nosso país acompanha (Aebi, Tiago, Berger-Kolopp, & Burkhardt, 2017). Essa tendência manifesta-se também na diminuição do número de medidas em Centro Educativo aplicadas a jovens delinquentes (DGRSP, 2018). Todavia, os dados oficiais mostram que Portugal continua a surgir destacado como um dos países da Europa com maiores taxas de presos juvenis por 100.000 habitantes (Aebi et al., 2017; Killias, Redondo, & Sarnecki, 2012; Souverein et al., 2019) sem que haja uma explicação clara sobre os motivos

porque tal acontece. Tais taxas, invulgarmente elevadas no contexto europeu e ocidental, tornam particularmente importante a investigação científica na temática da reincidência criminal em jovens delinquentes portugueses.

Em Portugal a investigação científica sobre reincidência criminal em ofensores adultos tem sido escassa (ver e.g., Barbosa, Quadros, & Ribeiro, 2012; Neves, 2010; Seruca & Silva, 2015; Susano, 2012). A investigação da reincidência criminal em jovens delinquentes permanece quase totalmente inexplorada e não temos conhecimento de estudos empíricos longitudinais prospetivos de reincidência que tenham sido publicados. Aliás, países do sul da Europa como Portugal, Espanha, Itália e Grécia são mencionados em obras de referência como não tendo efetuado investigação digna de relevo sobre a reincidência criminal, indicando motivos variados, nomeadamente a falta de financiamento e a ausência de investigadores experientes na área, entre outros (e.g., Killias et al., 2012; Zara & Farrinton, 2016). Alguns dados científicos têm sido pontualmente veiculados em seminários, como, por exemplo, o seminário internacional *Delinquência juvenil: processos de desistência, identidade e laço social* (DGRSP, 2015), informações internas da DGRSP ou em órgãos de comunicação social, mas sem passarem pelo crivo da publicação em periódicos nacionais ou internacionais indexados e com fator de impacto.

Na presente tese de doutoramento, a primeira parte é dedicada ao **enquadramento teórico**, onde são abordadas as temáticas de reincidência criminal em jovens delinquentes, a psicopatia e os traços psicopáticos em jovens, o recente modelo triárquico de psicopatia e as medidas utilizadas na avaliação da psicopatia em jovens. De seguida são estabelecidos os **objetivos** e as respetivas **questões de investigação**. Numa segunda parte é apresentada a **pesquisa empírica**, organizada em seis manuscritos, especificamente cinco artigos submetidos e publicados em revistas

internacionais da especialidade e um capítulo de um livro internacional. A tese é finalizada com uma **discussão geral** integrada dos resultados obtidos com as respectivas **conclusões** e com a **bibliografia geral**.

1.1. Reincidência criminal em jovens delinquentes

Reincidência deriva etimologicamente da palavra latina *recidere* que significa literalmente cair para trás (Halsey, 2017). No contexto da justiça criminal, a reincidência pode ser definida como a reversão de um indivíduo ao comportamento criminal depois de ter sido condenado por um delito prévio, sentenciado e (presumivelmente) ter sido submetido a um processo correcional. Ou seja, o termo reincidência inclui o conceito criminológico de recair em comportamentos que violam a lei, cometidos por um indivíduo previamente condenado e que poderão resultar em nova condenação. Maltz (1984/2001), no seu livro seminal sobre reincidência, define-a como processo dinâmico de continuar a cometer crimes, mesmo que não sejam os mesmos tipos de crimes.

Apesar de a definição conceptual de reincidência parecer simples e objetiva, a sua operacionalização é bastante complexa, atendendo a que a informação em que se baseia é, frequentemente, incompleta e/ou inconsistente. Assim, existe uma considerável variação na forma como a reincidência é operacionalizada e medida. Maltz (1984/2001) lista os diferentes tipos de contacto com o sistema de justiça criminal que foram utilizados para medir a reincidência, entre os quais a detenção, a recondenação, a violação da liberdade condicional, a revogação da liberdade condicional e o encarceramento. Atualmente, os significados mais comumente encontrados a nível internacional na medida da reincidência incluem: a) voltar a ser detido (*rearrest*) por ter cometido novo(s) crime(s) após ter sido condenado; b) voltar a ser condenado (*reconviction*) em tribunal por novo(s) crime(s); c) voltar a ser encarcerado (*reincarceration*) num centro/estabelecimento correcional (Harris, Lockwood, & Mengers, 2009; Zara & Farrington, 2016).

Voltar a ser detido por ter cometido um novo delito é provavelmente o indicador mais frequentemente utilizado para medir a taxa de reincidência. Este parâmetro é

importante porque a detenção constitui frequentemente a primeira fase do contacto do indivíduo com o sistema judicial. Todavia, este indicador pode ser enganoso porque o facto de ser novamente detido não significa necessariamente que se volte a ser condenado em tribunal (e.g., por falta de provas). O recurso ao parâmetro “detenção” como medida de reincidência tem a vantagem de não ser influenciado por procedimentos judiciais (e.g., redução das acusações, acordos judiciais nos países em que haja essa possibilidade), mas pode sobrestimar o nível de reincidência por ser o critério menos restritivo de reincidência (i.e., representa o nível máximo de reincidência obténivel através de dados oficiais) (Virginia Department of Juvenile Justice [VDJJ], 2005; Zara & Farrington, 2016).

Voltar a ser condenado em tribunal é frequentemente considerado o indicador definitivo de reincidência criminal. No entanto, também este critério tem limitações, uma vez que as condenações oficiais apenas abrangem uma parte conhecida da criminalidade ocorrida e registada oficialmente. Mesmo quando há condenação, esta pode resultar em medidas não-institucionais (e.g., tarefas a favor da comunidade). A utilização desta definição diminui a probabilidade de sobrestimar a reincidência, sendo que voltar a ser condenado constitui apenas um subconjunto das detenções (VDJJ, 2005; Zara & Farrington, 2016).

Voltar a ser encarcerado é outro indicador frequentemente utilizado. Neste caso é necessário distinguir o encarceramento como consequência de ter cometido novo crime ou por não ter cumprido as regras de conduta estipuladas na liberdade condicional. Alguns estudos não consideram a violação da liberdade condicional, e consequentemente a sua revogação, um indicador de reincidência fiável dado que pode apenas significar a falta de cumprimento de regras (e.g., faltar a entrevistas de reinserção social). Voltar a ser encarcerado é considerada a definição mais restrita de

reincidência. Os jovens voltam a ser encarcerados num centro/estabelecimento correcional quando o tribunal considera que os crimes que cometeram foram graves. Apesar de esta definição representar um subconjunto ainda menor das detenções tem bastante relevância metodológica (VDJJ, 2005; Zara & Farrington, 2016).

As questões metodológicas são fundamentais na investigação da reincidência e devem ser expostas com clareza e objetividade de modo a permitir a comparação direta dos resultados dos vários estudos efetuados e a sua eventual generalização a outras populações. Três elementos chave devem ser definidos no projeto do estudo da reincidência: 1) A amostra, que determina o grupo de indivíduos cuja reincidência será medida; 2) Os eventos indicadores, que são as ocorrências que indicam reincidência através de recurso a fontes de dados com regras de contabilização estipuladas objetivamente; 3) O período de observação no qual os eventos indicadores são observados e contabilizados (Halsey, 2017; Payne, 2007).

As questões relativas às fontes de dados de onde se retiram os eventos indicadores e os tipos de amostragem são, também, particularmente relevantes. Como foi selecionada a amostra e que características específicas da amostra possibilitam ou impedem a sua generalização? Dada a natureza ilícita da atividade criminal, os investigadores podem recorrer a dados através de autorrelato ou registos oficiais, sendo que cada um destes tipos de indicadores tem potencialidades e limites. Por exemplo, os crimes mais graves tendem a ser menos reportados no formato de autorrelato e os crimes menos graves tendem a ser menos reportados nas estatísticas oficiais (Babinski, Hartsough, & Lambert, 2001; Gomes, Maia, & Farrington, 2018; Hoeve et al., 2008). Os dados de autorrelato incluem apenas os crimes que o indivíduo está disposto a revelar, além de dependerem da sua capacidade retrospectiva de recordar acontecimentos e da sua capacidade de compreender as questões que lhe são colocadas.

Os dados oficiais podem ter basicamente três proveniências: policial, judicial e correcional. Os *dados policiais* referem-se a apreensões, acusações ou detenções que chegaram ao conhecimento da polícia; no entanto, é fundamental considerar que nem todos os crimes chegam ao conhecimento da polícia, e relativamente aos que o são, nem sempre é possível identificar, julgar e considerar culpados os indivíduos que os cometeram (Susano, 2012). Os *dados judiciais* são relativos a crimes nos quais os indivíduos estiveram na qualidade de arguidos, sendo formalmente acusados e/ou condenados. Finalmente, os *dados correcionais* refletem os novos contactos com os serviços de reinserção social e serviços prisionais e podem incluir, por exemplo, medidas comunitárias de trabalho a favor da comunidade, vigilância eletrónica ou encarceramento. É importante salientar que nem todas as condenações em tribunal resultam necessariamente em contactos com os serviços correcionais (Halsey, 2017; Payne, 2007; Wright & Miller, 2005).

A análise dos dados recolhidos deve basear-se na definição e quantificação dos eventos de reincidência, designadamente o tipo de delito selecionado como indicador da reincidência que será a unidade de medida da contabilização dos eventos indicadores. Por exemplo, nos processos apensados, os crimes serão contabilizados na mesma data ou serão contabilizados em datas diferentes apesar de serem julgados simultaneamente? Tais questões são importantes porque nem todas as investigações sobre reincidência incluem todos os crimes que ocorreram, optando algumas por estudar tipos específicos de crimes (e.g., crimes sexuais). Assim sendo, é possível que estudos diferentes utilizem a mesma base de dados e os mesmos indivíduos contantes nessa base mas cheguem a resultados diferentes em função das opções feitas a nível de definição e contabilização de crimes, com consequências evidentes a nível das taxas de reincidência obtidas (Olson, 2014; Payne, 2007; Tresidder, Payne, & Homel, 2009).

O último elemento chave do estudo da reincidência é o período de observação durante o qual se examinará a ocorrência de novos crimes. Também é designado por período de seguimento (*follow-up*) e consiste no número de dias, meses ou anos para os quais se obterá dados sobre a reincidência. Períodos de observação mais longos oferecem maior oportunidade para registrar eventos criminais, enquanto períodos mais curtos são mais limitados mas permitem investigações mais céleres e financeiramente menos onerosas. Apesar de não haver um padrão fixo de observação, o intervalo temporal mais frequente varia entre 12 e 24 meses. A seleção do período de observação é um outro aspecto metodológico importante da investigação, devendo ser feita atendendo ao estudo específico que se pretende efetuar, dado que influencia diretamente os resultados que se irão obter (Halsey & Deegan, 2015; Payne, 2007).

As motivações que levam os indivíduos a reincidir em práticas criminais constituem uma das variáveis relevantes no estudo da problemática da delinquência juvenil. Cole (2005) enumera sete grandes fatores causais da reincidência criminal: 1) *Incorrigibilidade* – os delinquentes não são passíveis de mudança porque escolhem propositadamente cometer crimes, sendo que as sanções, especialmente as mais leves, têm pouco ou nenhum efeito a nível da reincidência; 2) *Falha da sanção* – os indivíduos voltarão a cometer crimes novamente se o castigo for inapropriado e não servir como dissuasor; as sentenças que sejam demasiado leves, excessivamente pesadas ou inapropriadas fomentam a reincidência; 3) *Falta de apoio na reintegração* – os delinquentes que não tiverem apoio adequado na adaptação às normas sociais tenderão a cometer crimes para satisfazer as suas necessidades; a reincidência seria então provocada pelas dificuldades do indivíduo em se reintegrar na sociedade advindas da falta de apoio, e não o resultado da sentença ou de características do próprio indivíduo; 4) *Falha dos programas* – programas desenvolvidos na prisão ou durante a liberdade

condicional só serão efetivos se estiverem direcionados para as necessidades dos delinquentes e se estes estiverem empenhados em participar neles (e.g., programa direcionado para condenados por condução sobre efeito de álcool); 5) *Pressão dos pares e do meio social* – mesmo quando os delinquentes recebem sanções ajustadas e estão motivados para participar num programa adequado, ainda assim podem reincidir na sequência da pressão social e dos pares (e.g., um jovem toxicodependente em recuperação que retorna ao seu meio conotado com tráfico de drogas e onde residem outros consumidores de droga seus conhecidos); 6) *Stress económico* – quando as pessoas não conseguem obter estabilidade económica por meios legítimos, poderão recorrer a comportamentos ilegais (e.g., cometer roubos ou furtos para se sustentar a si próprios e/ou à sua família); 7) *Saúde mental* – a saúde mental de um delinquente pode ser um dos mais importantes preditores da reincidência dado que os doentes mentais tendem a não responder bem ao encarceramento, aos programas de reabilitação ou a outras medidas; até que o problema de saúde mental esteja tratado ou controlado, a propensão para reincidir tende a manter-se.

Os estudos empíricos desenvolvidos sobre preditores de reincidência têm envolvido essencialmente amostras norte-americanas de adultos e jovens. Katsiyannis, Whitford, Zhang, e Gage (in press) efetuaram recentemente uma meta-análise baseada em 19 estudos empíricos com adultos dos EUA, tendo concluído que os preditores estáticos mais fortes de reincidência criminal são a idade, a história antissocial, a criminalidade familiar, a educação familiar e o género, enquanto os preditores dinâmicos englobam a personalidade antissocial, as necessidades criminogénicas, o mal-estar pessoal, a realização social e o abuso de estupefacientes. Numa meta-análise realizada por Cottle, Lee, e Heilbrun (2001), que integrou 23 estudos empíricos empregando principalmente amostras norte-americanas de jovens e focando-se

principalmente em fatores estáticos, verificou-se que os fatores mais fortemente associados à reincidência eram a idade aquando da primeira institucionalização, a idade aquando do primeiro contacto com a lei, a presença de patologia não-grave, os problemas familiares, os problemas de comportamento, a utilização ineficaz do tempo de lazer, a presença de pares delinquentes, a duração do primeiro encarceramento, o número de colocações fora do lar (e.g., em família de acolhimento), o número de institucionalizações prévias, o tipo de crime, as pontuações baixas nos vários indicadores globais em escalas de inteligência (quociente de inteligência escala completa, quociente de inteligência verbal, quociente de realização, índices fatoriais, o uso de estupefacientes, a história de educação especial, a avaliação de risco formal, a história de abuso físico ou sexual, o género (masculino), o progenitor solteiro (família monoparental), a pertença a minoria étnica, o estatuto socioeconómico baixo e o número de detenções prévias.

No contexto europeu vale a pena salientar as investigações de Mulder e colegas (Mulder, 2010; Mulder, Brand, Bullens, & van Marle, 2011) com jovens ofensores ($N=728$) holandeses. Estes estudos evidenciaram vários fatores de risco para a reincidência criminal em geral, nomeadamente: comportamento criminal prévio (número de crimes, idade precoce aquando do primeiro crime, vítimas anónimas), perturbação do comportamento, fatores de risco familiares (competências parentais pobres, comportamentos criminais na família, história de abuso físico e emocional), envolvimento com pares criminais e falta de adesão ao tratamento (agressividade durante o tratamento, falta de estratégias de *coping*). Relativamente à reincidência violenta foram identificados como fatores de risco variáveis como envolver vítimas anónimas, registo de comportamentos criminais na família, falta de adesão ao tratamento e ausência de estratégias adequadas de *coping*.

Considerando os fatores dinâmicos associados à reincidência (ver e.g., Navarro-Pérez & Pastor-Seller, 2017), a personalidade antissocial, tal como se manifesta no que respeita ao constructo de psicopatia, afigura-se especialmente importante. Segundo Zara e Farrington (2016), a psicopatia é um importante fator associado à reincidência e à criminalidade persistente, sendo relevante na avaliação de risco e no tratamento. Estes autores analisaram dados relativos ao *Cambridge Study in Delinquent Development* (CSDD), tendo verificado que a presença de características antissociais da personalidade na infância e na adolescência estava relacionada com pontuações elevadas em instrumentos de avaliação da psicopatia na idade adulta (e.g., instrumentos baseados na *Psychopathy Checklist – PCL*; Hare, 2003). Neste estudo, quase todos os participantes do sexo masculino com pontuações elevadas em psicopatia tinham sido condenados e a grande maioria deles apresentava um percurso delinquencial persistente ao longo da vida. Todavia, colocam-se ainda algumas questões sobre a relação entre psicopatia e reincidência, das quais se destaca a discussão em torno do formato de medida (e.g., *rating scales* de heterorrelato, questionários de autorrelato). Asscher et al. (2011) demonstraram, a este respeito, que as pontuações em psicopatia obtidas através de *rating scales* obtinham correlações mais fortes com a reincidência do que as pontuações obtidas através de autorrelato, possivelmente devido ao efeito da desejabilidade social ou de outras formas de enviesamentos.

A psicopatia é claramente uma variável importante na avaliação do risco de reincidência, em particular da reincidência violenta, e na seleção da intervenção desenhada para reduzir esse risco (Tew, Harkins, & Dixon, 2013). A revisão da literatura permite concluir que indivíduos com traços psicopáticos elevados apresentam risco aumentado de reincidência criminal e são particularmente difíceis de analisar do ponto de vista da intervenção psicoterapêutica recomendada. Todavia, não são

consensuais nem claras quais as intervenções terapêuticas mais eficazes e de que forma estas poderão beneficiar estes indivíduos, simultaneamente difíceis de motivar, com necessidades complexas e que muitas vezes não reconhecem a existência de um problema nem a necessidade de serem ajudados.

Apesar de tradicionalmente a literatura descrever como não tratáveis os ofensores com características psicopáticas vincadas, sejam eles jovens ou adultos, algumas abordagens recentes têm vindo a mostrar que certas intervenções podem produzir efeitos positivos (Skeem, Scott, & Mulvey, 2014). Em geral, os programas que se baseiam no modelo Risco-Necessidades-Responsividade (RNR; Andrews, Bonta, & Hoge, 1990) demonstram maiores reduções no risco de reincidência em adultos com níveis elevados de psicopatia (Polaschek, 2011). A terapia multisistémica parece ser particularmente relevante para os jovens com traços psicopáticos elevados que se manifestam por desinibição dado que melhora um largo espectro de sintomas externalizantes (Patrick et al., 2013), mas são necessárias modificações para melhorar a eficácia dos programas neste tipo particular de jovens (Dadds, Cauchi, Wimalaweera, Hawes, & Brennan, 2012). Contudo, continua a ser muito escassa a investigação produzida nesta área (ver e.g., Lösel, 1998; Polaschek & Skeem, 2018; Salekin, 2002; Thornton & Blud, 2007), sendo necessário um incremento da pesquisa especificamente focada nas intervenções terapêuticas fundamentadas em critérios de evidência científica.

Diversos estudos norte-americanos (e.g., Cohen & Piquero, 2009; DeLisi, Reidy, Heirigs, Tostlebe, & Vaughn, 2018) demonstraram que proceder à avaliação de risco em jovens de forma cientificamente fundamentada e implementar intervenções que os distanciem da vida criminal pode resultar em ganhos económicos substanciais para o Estado. Por exemplo, estimou-se que nos EUA os jovens criminalmente mais ativos, no seu conjunto, custem anualmente mais de 700 milhões de dólares, enquanto afastar um

único jovem de uma carreira criminal ao longo da vida possa resultar em poupanças entre 2.6 milhões e 5.3 milhões de dólares. Na Europa, as conclusões de Jolliffe e Farrington (2013) vão na mesma linha, estimando que um programa destinado a reduzir a reincidência criminal em jovens delinquentes, baseado em princípios científicos empiricamente validados e convenientemente implementado, pode resultar em poupanças acima de 10000 libras, num período de dez anos.

O facto de diferentes países terem sistemas legais e leis criminais distintos torna difícil a comparação internacional das taxas de reincidência, motivo pelo qual ainda não existe uma revisão sistemática disponível (Zara & Farrington, 2016). Em Portugal aplica-se a Lei n.º 166/99, de 14/09, alterada pela Lei n.º 4/2015, de 15/01, vulgarmente conhecida por Lei Tutelar-Educativa. Esta lei estabelece como medidas tutelares: a) a admoestação; b) a privação do direito de conduzir ciclomotores ou de obter permissão para conduzir ciclomotores; c) a reparação ao ofendido; d) a realização de prestações económicas ou de tarefas a favor da comunidade; e) a imposição de regras de conduta; f) a imposição de obrigações; g) a frequência de programas formativos; h) o acompanhamento educativo; e i) o internamento em centro educativo.

Na legislação portuguesa, a medida de internamento em centro educativo (a nível internacional geralmente apelidados de centros de detenção) pode decorrer em regime aberto, semiaberto ou fechado. A medida de internamento em regime aberto e semiaberto tem a duração mínima de seis meses e a máxima de dois anos, enquanto a medida de internamento em regime fechado tem a duração mínima de seis meses e a máxima de dois anos, podendo ser estendida a três anos em casos de criminalidade mais grave. Em Portugal, os centros educativos destinam-se exclusivamente: a) à execução da medida tutelar de internamento; b) à execução da medida cautelar de guarda em centro educativo; c) ao internamento para a realização de perícia sobre a personalidade

quando tal incumba aos serviços de reinserção social; e d) ao cumprimento da detenção em caso de flagrante delito (sem nunca exceder quarenta e oito horas). Para os fins da presente investigação interessa considerar especificamente a medida tutelar de internamento e a medida cautelar de guarda (esta última tem o prazo de três meses, prorrogável até ao limite máximo de mais três meses), excluindo-se as restantes.

Os estudos internacionais que investigam a reincidência entre os jovens que estiveram internados em centros de detenção utilizando dados oficiais referentes a 12 meses geralmente reportam taxas de reincidência utilizando como critérios: voltar a ser detido pelas autoridades policiais (variando entre 43% a 70%); voltar a ser condenado pelos tribunais (entre 17% e 44%); voltar a ser encarcerado em centros/estabelecimentos correcionais (de 9% a 31%) (Baird, 1987; Goodstein & Sontheimer, 1987; Krisberg, & Howell, 1998; Krisberg, DeComo, Wordes, & Del Rosario, 1996; Snyder & Sickmund, 2006; Tollett, 1987; VDJJ, 2005). Uma revisão da literatura relativa a dados oficiais fornecidos por estados norte-americanos concluiu num seguimento a 12 meses que, em média, 57% dos jovens foram novamente detidos, 33% foram novamente condenados e 22% foram novamente encarcerados (Howell, Feld, & Mears, 2012). Constatou-se que as taxas vão decrescendo à medida que se passa do critério “ser detido” para os critérios “ser condenado” e “ser encarcerado”, uma vez que um jovem pode ser detido e libertado (e.g., devido a falta de provas), podendo também ser condenado em medidas alternativas ao encarceramento (e.g., trabalho a favor da comunidade).

Outras investigações utilizam definições diferentes de reincidência mais compatíveis com as suas operacionalizações ou com os modelos teóricos seguidos. No Reino Unido, o *Proven Re-offending Statistics Quarterly Bulletin for England and Wales* (Ministry of Justice, 2014) utiliza uma definição de “re-ofensas provadas” (*proven re-offenses*) que pode ser considerada alargada na sua abrangência, incluindo

qualquer ofensa cometida por jovens libertados de custódia no período de seguimento de 12 meses e que dê origem a condenação em tribunal, admoestação, reprimenda ou aviso. Por exemplo, no período de 12 meses (entre Abril de 2011 e Março de 2012) cerca de 69% dos jovens delinquentes ingleses cometeram, comprovadamente, uma nova ofensa. Já no estado norte-americano do Missouri a definição de reincidência consiste em qualquer subsequente institucionalização nas instalações correcionais juvenis, no período de 12 meses, após a saída em liberdade condicional (VDJJ, 2005). Por exemplo, no ano de 2003, as taxas de reincidência juvenil reportadas oficialmente no Missouri foram de 9%. Torna-se patente nestes dois exemplos como duas definições diferentes de reincidência criminal juvenil podem registar resultados tão díspares.

O estudo comparativo de reincidência criminal juvenil realizado pelo VDJJ (2005) nos 50 estados nos EUA tornou particularmente evidente a problemática metodológica associada a este tipo de investigações. A definição de reincidência utilizada neste estudo foi: um reincidente é uma pessoa que um tribunal considerou que cometeu um ato criminal ou delinvente (excluindo a violação da liberdade condicional ou das condições de libertação) depois de (a) ter sido colocado em liberdade condicional ou (b) libertado de um centro/estabelecimento correcional. Na definição de novos crimes cometidos na reincidência não foi incluída a violação da liberdade condicional em si mesma, a violação das condições de libertação, o desrespeito ao tribunal, a falta de comparência em tribunal, e o tráfico (com exceção dos que caem na categoria do delito grave ou infrações de delitos menores).

Foi recolhida informação oficial e foram contactadas as agências de justiça juvenil de todos os 50 estados norte-americanos de forma a prestarem esclarecimentos mais detalhados sobre os jovens libertados de centros/estabelecimentos correcionais. Sete estados não responderam ao pedido de inquérito. Cinco estados não dispunham de

dados a nível estadual. Seis estados não tinham dados relativos ao seguimento de 12 meses, o intervalo temporal mais comumente utilizado em estudos de reincidência em jovens. Nove estados consideravam apenas certas populações, instalações ou programas específicos. Outros estados revelaram que não faziam seguimento dos jovens, analisando apenas determinados critérios num determinado ponto no tempo (e.g., número de jovens encarcerados dia 31 de Dezembro). Assim, tornou-se patente a existência de uma grande variedade de definições de reincidência e de metodologias utilizadas, o que levou o VDJJ a comparar a conceptualização da reincidência juvenil a uma “salada de frutas” ou a um “buffet” em que cada investigador escolhe as definições, as populações, as amostras, as medidas e as taxas que pretende utilizar (VDJJ, 2005, p. 10).

Desta investigação concluiu-se que apenas seria possível proceder a algumas comparações relativamente a 21 estados americanos que forneciam dados de seguimento a 12 meses e que cumpriam critérios, considerados mínimos, de homogeneidade nas restantes definições e operacionalizações. Todavia, mesmo entre estes estados havia diferenças nas variáveis analisadas. O limite superior da idade em que era possível aplicar a justiça juvenil (o equivalente português à lei tutelar-educativa) variou nos diferentes estados entre os 15 anos e os 17 anos. Por outro lado, os dados analisados referiram-se, não a um ano específico, mas a vários anos, no intervalo de 1991 a 2003. Alguns estados não seguiram grupos específicos de jovens ou então seguiram apenas subgrupos (e.g., jovens que cometiam crimes particularmente graves e violentos). Alguns estados incluíram apenas atos delituosos/criminais enquanto outros integravam todos os tipos de atos ilegais. Alguns estados seguiram os jovens no sistema penal de adultos para análise da reincidência, outros consideravam apenas a justiça juvenil. Nem todos os estados incluíam como critério de reincidência as três

possibilidades, nomeadamente voltar a ser detido, voltar a ser condenado e voltar a ser encarcerado. O critério *voltar a ser detido* era utilizado em oito estados, o critério *voltar a ser condenado* era referenciado por nove estados e o critério *voltar a ser encarcerado* era usado por outros nove estados. Nos 21 estados analisados, além destes critérios, por vezes eram utilizados outros mais específicos como voltar a ser referenciado (*referral*), tornar a ser adjudicado (*readjudication*), voltar a ser registado (*new filing*) ou tornar a ser internado (*recommitment*) (VDJJ, 2005).

Este estudo do VDJJ (2005) alerta ainda para o facto de bastantes investigações sobre jovens que saíram de centros/estabelecimentos correcionais não apresentarem dados específicos que permitam comparações em função de variáveis como género, etnia, idade, tendências longitudinais, toxicodependência ou subtipos de crimes. Os dados do estudo do VDJJ (2005) relativos a 2003, com seguimento a 12 meses, indicaram que os rapazes tinham uma taxa de reincidência mais alta que as raparigas (52.5% *versus* 35.1% voltaram a ser detidos, 39.2% *versus* 26.4% voltaram a ser condenados, 18.7% *versus* 6.8% voltaram a ser encarcerados, respetivamente). Os jovens negros tinham uma taxa de reincidência mais alta que os dos restantes grupos étnicos (53.1% *versus* 43.8% dos brancos, 50.0% dos hispânicos e 14.3% de outras minorias voltaram a ser detidos no seguimento a 12 meses). Os jovens com 15 anos na altura da sua libertação tinham maior probabilidade de voltarem a ser detidos (60.0%) e condenados (48.3%) e os jovens que tinham 14 anos na altura da sua libertação tinham maior probabilidade de voltarem a ser encarcerados (26.3%). Entre 1998 e 2003 a reincidência aumentou (e.g., as novas detenções aumentaram de 47.0% para 49.4%). Os jovens com problemas de toxicodependências apresentaram maior tendência para reincidir no que diz respeito à probabilidade de voltarem a ser detidos e condenados. Finalmente, os jovens conotados com crimes sexuais apresentavam tendências de

reincidência mais baixas para voltarem a ser detidos, condenados e encarcerados (VDJJ, 2005).

O VDJJ (2005) fornece ainda dados sobre os vários programas internos destinados a reduzir a reincidência criminal dos jovens. O Youth Industries Program (YIP) destina-se a dar formação aos jovens encarcerados com o objetivo de aumentar a sua empregabilidade após a libertação. Os jovens selecionados para participarem recebem formação vocacional e académica, além de experiência prática em diversas áreas (e.g., horticultura, informática, eletricidade, etc.). Os dados de reincidência a 12 meses indicam que os jovens que participaram no YIP tiveram registos mais baixos de detenção (33.3%), de condenação (17.6%) e de encarceramento (7.8%). Outro programa disponível é o Army JROTC que se baseia num modelo militar estruturado e inclui a utilização de uniformes militares. Os jovens aprendem aplicações práticas de conceitos militares, além de responsabilidade pessoal, liderança e cidadania. Os dados preliminares de reincidência a 12 meses indicam que os jovens que participaram no Army JROTC registam valores mais baixos de detenção (27.8%), de condenação (22.2%) e de encarceramento (8.3%). A conclusão final do VDJJ acerca destes e de outros seus programas é de que se mostram eficientes na redução das taxas de reincidência quando corretamente implementados.

Algumas investigações têm vindo a analisar a eficácia das intervenções destinadas a reduzir a reincidência em jovens utilizando meta-análises. Lipsey e colegas (e.g., Lipsey, 2009; Lipsey, Howell, Kelly, Chapman, & Carver, 2010) adotam uma perspetiva descritiva que não adota teorias específicas ou modelos de intervenção em particular. Estes autores focam-se na identificação de correlatos de efeitos de reincidência, isto é, características de métodos, programas, ofensores e circunstâncias de intervenção e as suas associações com indicadores de diferenças de reincidência entre

grupos de tratamento e grupos de controlo. Lipsey et al. (2010), numa meta-análise que examinou 548 estudos, concluíram que o efeito médio das intervenções foi modesto, positivo e estatisticamente significativo, com uma reincidência 6% inferior ao do grupo controlo, tendo como parâmetro voltar a ser preso e um período de seguimento de 12 meses. Nesta pesquisa verificou-se que a eficácia das intervenções variou muito, sendo que algumas apresentavam dimensões de efeito negativas ou muito baixas, enquanto outras mostravam reduções na reincidência que variavam entre 24% a 40%. Lipsey (2009) concluiu que apenas três fatores emergem como grandes correlatos da eficácia dos programas, nomeadamente a intervenção terapêutica, a intervenção forense com ofensores de elevado risco e a boa qualidade da implementação da intervenção; ou seja, programas com estas condições registam reduções maiores na reincidência. Considerando os diferentes tipos de intervenção terapêutica examinados, foram detetadas poucas diferenças quando controladas estatisticamente outras variáveis.

Killias et al. (2012) efetuaram uma revisão dos programas de intervenção com jovens delinquentes na Europa, tendo concluído que, à semelhança dos programas Norte-Americanos (ver e.g., Howell, 2009), estes têm um efeito modesto mas significativo na redução da delinquência. As intervenções analisadas registaram em média uma redução na reincidência de cerca de 10 pontos percentuais, tendo por base taxas de reincidência entre 50% a 65% (ver e.g., Cooke & Philip, 2001; Cullen & Gendreau, 2006; Lösel, 1996, 1998). Segundo estes autores, os melhores programas de intervenção podem obter uma redução da reincidência entre 15 a 25 pontos percentuais, o que quer dizer que pode haver uma redução substancial da reincidência dependendo da qualidade do programa de intervenção. No entanto, na Europa são escassas as avaliações de qualidade das intervenções (e.g., com ensaios de controlo randomizados) apesar de miríade de programas implementados na maioria dos países.

Andrews e colegas (e.g., Andrews et al., 1990; Andrews & Bonta, 2006, 2010; Andrews & Dowden, 2007) têm analisado a eficácia das intervenções com jovens delinquentes com base no modelo RNR (Andrews et al., 1990) tendo concluído que as intervenções que se baseiam neste modelo mostram resultados bastante superiores às que se regulam por outras abordagens. Andrews e colegas (2006, 2007) apresentaram resultados que evidenciam que as intervenções que se baseiam no modelo RNR conseguem reduções da reincidência de 30% a 50%, valor muito superior aos dos outros modelos que, nalguns casos, são praticamente nulos ou chegam mesmo a aumentar o risco de reincidência. A superioridade na eficácia do modelo RNR foi também comprovada na meta-análise efetuada por Koehler, Lösel, Akoensi, e Humphreys (2013) sobre programas de intervenção com jovens ofensores na Europa, que indicou uma redução na ordem dos 16%, tendo por base uma taxa de reincidência de 50%; todavia, estes autores salientam que a maioria dos programas analisados provinham do Reino Unido e que os programas dos países da Europa continental geralmente não eram alvo de uma avaliação minimamente consistente (para uma exceção ver Lindblom, Eriksson, & Hiltunen, 2017).

Para compreender a eficácia empírica do modelo RNR torna-se necessário aprofundar a questão da avaliação de risco intrinsecamente subjacente a este modelo. Andrews e Bonta (2010) descreveram quatro gerações de procedimentos de avaliação de risco. A primeira geração baseava-se no treino profissional e no conhecimento clínico não-estruturado dos profissionais que trabalhavam em contexto forense. Este tipo de avaliação, apesar de frequente, demonstrou ser de reduzida validade. A segunda geração da avaliação do risco baseava-se na utilização de instrumentos de avaliação atuariais sustentados em evidências que se revelaram mais eficientes do que os procedimentos subjetivos da geração anterior. Todavia, estes instrumentos focavam-se

nos fatores estáticos (históricos) e não se sustentavam numa base teórica consistente. A terceira geração dos modelos de avaliação do risco apoiava-se em instrumentos com uma base teórica sólida, que consideravam os riscos e as necessidades. A inclusão de fatores de risco dinâmicos tornou os instrumentos desta geração sensíveis às mudanças de vida das pessoas avaliadas. A quarta geração dos modelos de avaliação do risco baseia-se na integração da gestão de caso com a avaliação de riscos e de necessidades. A avaliação de risco tornou-se assim mais compreensiva, dado que passou a implicar a avaliação e a integração sistemática de uma variedade mais ampla de fatores, com intervenção, monitorização e tratamento das pessoas acompanhadas.

De entre os instrumentos de quarta geração de avaliação de risco é imprescindível mencionar os *Level of Service* (LS). Os instrumentos LS fazem parte de um conjunto de instrumentos de avaliação de riscos e necessidades e são dos mais utilizados a nível internacional (Wormith & Bonta, 2018). Os LS são ferramentas quantitativas compostas por itens relativos aos fatores estáticos e itens centrados nos fatores dinâmicos (criminogénicos) com resposta em formato dicotómico. O protocolo de avaliação é baseado em entrevista e recolha de informação a partir de várias fontes (e.g., família) e documentação (e.g., dados processuais). No caso específico dos jovens delinquentes, o *Youth Level of Service/Case Management Inventory* (YLS/CMI; Hoge & Andrews, 2002; Hoge, Andrews, & Lescheid, 2002) é o mais utilizado e investigado de entre todos os instrumentos existentes (Andrews et al., 2011; Campbell et al., 2014), encontrando-se adaptado para a realidade nacional (Pimentel et al., 2015, 2017).

O YLS/CMI é composto por 42 itens dicotómicos (0 = ausente, 1 = presente) e foi desenvolvido com base numa amostra de jovens do Canadá com idades entre os 12 anos e os 17 anos (Hoge & Andrews, 2002). Posteriormente foi publicada uma versão abreviada, com oito itens, designada YLS/CMI – Screening Version (YLS/CMI-SV;

Hoge & Andrews, 2009). A base teórica para o desenvolvimento do YLS/CMI e a sua versão abreviada foi o modelo RNR (Andrews et al., 1990) que integra três princípios essenciais: a) o risco envolve a avaliação do nível de risco em que dado jovem se encontra e a atribuição do nível de serviço adequado; b) as necessidades englobam a avaliação das necessidades criminogénicas que são o alvo a atingir no processo de planificação da intervenção no caso; e c) a responsividade, que tem em consideração a personalidade e os estilos de aprendizagem do jovem, além de incorporar técnicas cognitivo-comportamentais para maximizar o impacto do tratamento (Campbell et al., 2014; cf. Pimentel et al., 2017, para uma revisão dos estudos portugueses com o YLS/CMI).

Recentemente surgiu o YLS/CMI 2.0 que apresenta melhorias relativamente à versão original, nomeadamente a aplicabilidade que se estende até aos 18 anos, com normas por género e enquadramento (e.g., forense, comunitário) tendo por base uma nova amostra normativa de 12798 jovens dos EUA, que inclui de forma significativa minorias étnicas, com operacionalização mais clara dos fatores não-criminogénicos, das instruções de utilização que consideram fatores de género específicos, itens que contextualizam fatores de género específicos (e.g., gravidez, maternidade, vitimização física e sexual) e itens que consideram os fatores de responsividade de cariz cultural (Hoge & Andrews, 2011).

O YLS/CMI 2.0 tem 42 itens relacionados com os domínios de risco e de necessidades fundamentados na investigação denominados “Oito Centrais” (*Central Eight*): *Disposições/transgressões prévias e atuais, Educação/emprego, Circunstâncias familiares/parentalidade, Relações com os pares, Abuso de estupefacientes, Personalidade/comportamento, Atitudes/orientação e Lazer/recreio*. A informação recolhida é utilizada para completar sete componentes: *Avaliação de riscos de*

necessidades, Sumário de riscos e necessidades, Avaliação de outras necessidades e considerações especiais, Nível de risco/necessidade geral e sobreposição profissional, Decisão de programa/colocação, Plano de gestão de caso e Revisão de gestão de caso. São fornecidos posteriormente quatro tipos de relatório: relatórios de perfil, relatórios comparativos, relatórios de gestão de caso e relatórios agregados (Hoge & Andrews, 2011). Os “Oito Centrais”, que são fatores de risco e de necessidades criminogénicos, providenciam um enquadramento teórico que serve para predizer e gerir o comportamento criminal futuro, interligando a avaliação e o tratamento forenses (Bonta & Andrews, 2017).

Tem sido defendido que o modelo RNR, fundamentado na psicologia social e da personalidade, é fundamental para a gestão de caso e para a identificação do risco de reincidência, devendo ser integrado ao longo do processo judicial de forma a conceber intervenções específicas que lidem com o risco de delinquência futura (Bonta & Andrews, 2017). Mais recentemente, tem-se procurado fazer a ponte entre a psicologia forense e a neuropsicologia, sugerindo-se que há domínios específicos das funções executivas subjacentes aos “Oito Centrais” relacionados com os comportamentos criminais e, por extensão, com o modelo RNR. Nesta perspetiva, défices nas funções executivas de autorregulação e de resolução de problemas estariam subjacentes aos riscos criminogénicos que aumentam a probabilidade de reincidência (Basanta, Fariña, & Arce, 2018; Luong & Wormith, 2011; Seruca & Silva, 2015; Valliant, Freeston, Pottier, & Kosmyna, 2003). Portanto, a avaliação destas funções serviria para refinar a avaliação e a intervenção com os ofensores (Cheng, O’Connell, & Wormith, 2019). De acordo com alguns estudos (Andrews & Bonta, 2010; Andrews & Dowden, 2007; Chu, Yu, Lee, & Zeng, 2014), o recurso ao modelo RNR reduz consideravelmente a reincidência dado que permite identificar e trabalhar os fatores de risco através do

desenho de intervenções especificamente adaptadas a cada indivíduo. É bem possível que o facto de o YLS/CMI estar assente no modelo RNR contribua decisivamente para os seus bons resultados relativamente à validade preditiva e fiabilidade.

Um fator de risco amplamente discutido na literatura e investigação sobre delinquência juvenil é a psicopatia/traços psicopáticos. Assim, na secção seguinte iremos debruçar-nos sobre o constructo da psicopatia em jovens, em particular a sua relevância na investigação empírica forense.

1.2. Psicopatia e traços psicopáticos em jovens

A palavra “psicopatia” deriva etimologicamente das palavras em grego antigo *psykhē* e *pathos*, significando literalmente doença psíquica. Na cultura e na ciência ocidentais, o termo psicopatia veio a designar as pessoas que tipicamente demonstram comportamentos impulsivos, irresponsáveis, antissociais ou desviantes no contexto de determinada sociedade (Hare, 1985). A investigação científica da psicopatia tem cerca de dois séculos, estando ligada desde o seu início ao desenvolvimento da psiquiatria enquanto especialidade da medicina (Arrigo & Shipley, 2001; Millon, Simonsen, & Birket-Smith, 1998). A primeira descrição na literatura científica do que se considera atualmente psicopatia foi feita em 1801 pelo médico francês Philippe Pinel. Posteriormente, diversos autores tornaram-se proeminentes na caracterização da psicopatia, nomeadamente Benjamin Rush, James Pritchard, Julius Koch, Henry Maudsley, Richard von Krafft-Ebing, Karl Bimbaum, Emil Kraepelin e Kurt Schneider (para uma descrição mais pormenorizada ver Arrigo & Shipley, 2001; Millon et al., 1998; Pechorro, Jiménez, Nunes, & Hidalgo, 2016; Ribeiro da Silva et al., 2013; Soeiro & Gonçalves, 2010).

Cleckley (1941/1988), psiquiatra americano, teve o contributo mais importante na definição atual da psicopatia, propondo uma descrição clara, coerente e detalhada da psicopatia e das suas manifestações. No livro *The Mask of Sanity* este autor retratou os psicopatas como indivíduos camuflados sob uma máscara de aparente sanidade, mas profundamente perturbados nas suas relações com as outras pessoas e com a sociedade. O papel fundamental de Cleckley deveu-se à chamada de atenção para o forte valor preditivo do constructo da psicopatia no comportamento antissocial em geral (Harpur, Hare, & Hakstian, 1989) e, particularmente, para a sua relação com os comportamentos violentos, impulsivos e agressivos (Hare, Clark, Grann, & Thornton, 2000).

Cleckley (1941/1988) enumerou indicadores clínicos que considerou como os traços mais significativos da psicopatia, nomeadamente: (1) Encanto superficial e bom nível de inteligência; (2) Inexistência de alucinações ou de outras manifestações de pensamento irracional; (3) Ausência de nervosismo ou de manifestações neuróticas; (4) Não ser de confiança; (5) Ser mentiroso e desonesto; (6) Egocentrismo patológico e incapacidade de amar; (7) Pobreza geral nas principais relações afetivas; (8) Vida sexual impessoal, trivial e pouco integrada; (9) Ausência de sentimentos de culpa ou de vergonha; (10) Perda específica da intuição; (11) Incapacidade para seguir um plano de vida; (12) Ameaças de suicídio raramente cumpridas; (13) Raciocínio pobre e incapacidade para aprender com a experiência; (14) Comportamento fantasioso e pouco recomendável com ou sem ingestão de bebidas alcoólicas; (15) Incapacidade para responder na generalidade das relações interpessoais; (16) Exibição de comportamentos antissociais sem escrúpulos aparentes.

O trabalho de Cleckley (1941/1988) constituiu a base do reconhecimento de que a psicopatia no indivíduo adulto teria as suas raízes na infância e na adolescência. Todavia, coube a outros autores o trabalho de aprofundar a questão do desenvolvimento precoce da psicopatia em crianças e jovens, que levou ao manancial de investigação que tem vindo progressivamente a acontecer.

Karpman (1949, 1950, citado em Skeem et al., 2007, e citado em Salekin & Frick, 2005) contribuiu para a clarificação das características da psicopatia, a etiologia da psicopatia e para a questão do tratamento da psicopatia em crianças e jovens, tendo sido possivelmente o primeiro autor a fazer a distinção clássica entre psicopatia primária e secundária. Na perspetiva de Karpman, a *psicopatia primária* tem na sua origem um défice afetivo com base hereditária, enquanto a *psicopatia secundária* resulta de uma perturbação afetiva adquirida no contexto ambiental; no entanto, as duas

variantes são fenotipicamente semelhantes. Esta distinção foi posteriormente desenvolvida por outros autores (e.g., Blackburn, 1975; Lykken, 1995; Mealey, 1995; Porter, 1996).

McCord e McCord (1964, citado em Salekin & Frick, 2005) enfatizaram a importância da identificação e do tratamento dos jovens com problemas de comportamento e traços psicopáticos, realçando que os sinais de perturbação psicopática da personalidade nos jovens se manifestam de forma distinta dos adultos. Além disso, salientavam que os jovens com estas características constituiriam apenas 14% dos delinquentes juvenis. Estes autores exploraram o papel da rejeição/negligência parental no desenvolvimento da psicopatia como determinantes causais reforçadores de outras influências patogénicas (estilo de temperamento sem medo e desinibido). Tais fatores facilitariam o desenvolvimento de um estilo de personalidade caracterizado por frieza, insensibilidade e ausência de vínculos emocionais. Desta forma, o comportamento hostil e emocionalmente insensível de certos psicopatas poderá ser entendido como uma adaptação emocional secundária a fatores ambientais (e.g., rejeição parental, abuso) e, por isso, mais manejável em termos de terapia (Skeem, Poythress, Edens, Lilienfeld, & Cale, 2003).

Quay (1964, 1965, citado em Frick & Moffitt, 2010) propôs a definição de subtipos de delinquentes juvenis, que conduziram à inclusão de especificadores no diagnóstico de Perturbação do Comportamento (DSM-III; APA, 1980), nomeadamente socializados *versus* subsocializados e agressivos *versus* não-agressivos. Um dos subtipos, o de jovem subsocializado, era caracterizado por uma falha em estabelecer uma relação normal de afeição, de empatia e de laços emocionais com as outras pessoas, sendo típico o egocentrismo, a manipulação e a frieza emocional que levavam a um prognóstico reservado em termos de tratamento. Este subtipo referia-se

basicamente à presença de características de funcionamento típicas da psicopatia embora o termo não fosse explicitamente mencionado. Devido a confusões etiológicas e metodológicas na distinção dos subtipos, estes especificadores acabaram por ser abandonados.

A partir de 1990, na sequência dos avanços do estudo da psicopatia em adultos (e.g., reincidência violenta), houve um ressurgimento do interesse pela aplicação do constructo da psicopatia a crianças e jovens (Salekin & Frick, 2005). Foi particularmente do ponto de vista da compreensão do desenvolvimento da agressividade em crianças e jovens e da predição do risco de violência que o interesse pelo constructo da psicopatia voltou a surgir (e.g., Kotler & McMahon, 2005; Marczyk, Heilbrun, Lander, & DaMatteo, 2003).

Os investigadores, aproveitando a concetualização inicial que teve por base amostras de homens adultos detidos em prisões, começaram a modificar a rede nomológica da psicopatia de forma a adaptar os instrumentos de investigação e avaliação a crianças, jovens, mulheres e minorias étnicas, grupos praticamente não investigados até ao início da década de 90 (Ribeiro da Silva, Rijo, & Salekin, 2012; Verona & Vitale, 2006; Verona, Sadeh, & Javdani, 2010). Forth, Hart, e Hare (1990) podem ser considerados os pioneiros que desencadearam a vaga atual de investigações com menores de idade, embora inicialmente de uma forma ainda muito ligada à medição do constructo e ao que havia sido previamente feito com homens adultos (Salekin & Lynam, 2010).

Lynam (1996, 1997, 1998), um autor de referência na aplicação do constructo da psicopatia a crianças e adolescentes, defende que as crianças que exibiam uma conjugação de impulsividade, hiperatividade e défice-de-atenção, bem como de perturbação do comportamento, teriam uma variante especialmente virulenta de

perturbação de comportamento que os tornava “fledgling psychopaths” (expressão que pode ser traduzida como “pequeninos psicopatas”). Lynam defendeu que estas crianças teriam muitos dos atributos descritos nos psicopatas adultos e podiam ser distinguidas das restantes através das medidas de psicopatia, de comportamento antissocial e de tarefas laboratoriais construídas para avaliar a modulação de respostas e a dificuldade em adiar a gratificação.

Frick e colegas (Frick, O’Brien, Wootton, & McBurnett, 1994; Frick, Barry, & Bodin, 2000) são também autores de referência na aplicação do constructo da psicopatia a crianças e adolescentes, sendo responsáveis por grande parte dos estudos feitos na atualidade. Frick e seus colaboradores focaram-se na presença de traços calosos/não-emocionais (e.g., falta de empatia, falta de culpa, fraca expressão emocional) enquanto aspetos essenciais na identificação e na definição de um subgrupo de jovens antissociais com défices a nível da consciência moral e comportamentos agressivos mais graves e frequentes, tipicamente encontrados nos adultos com psicopatia.

Todavia, este tópico de investigação não estava isento de polémica. A aplicabilidade do constructo da psicopatia às crianças e aos jovens foi inicialmente muito questionada por vários autores (e.g., Grisso, 1998; Hart, Watt, & Vincent, 2002; Murrie, Boccaccini, McCoy, & Cornell, 2007; Seagrave & Grisso, 2002), que argumentam que estes traços podem não representar características estáveis que persistirão na idade adulta sendo antes transitórios e maleáveis. Na perspetiva destes autores, fazer este tipo de diagnóstico nos jovens, sem que haja evidências empíricas suficientemente fortes e consistentes, leva a que eles sejam erradamente rotulados como perigosos e irrecuperáveis para a sociedade, prejudicando-os gravemente no seu percurso de vida.

É, assim, fundamental definir e distinguir os conceitos psicopatia e traços

psicopáticos (Andershed, 2010; Cooke & Michie, 2001; Cooke, Michie, Hart, & Clark, 2004; Hare, 2003). A psicopatia é frequentemente descrita como uma síndrome que se mantém ao longo da vida, englobando uma constelação de traços extremos a nível interpessoal, afetivo-comportamental e de estilo de vida (Hare, 2003). Os psicopatas podem ser identificados enquanto grupo distinto de indivíduos que tendem a manifestar comportamentos antissociais graves e violentos de forma persistente, motivados por razões instrumentais como ganhos materiais e vingança (e.g., Serin, 1991; Vasey, Kotov, Frick, & Loney, 2005). Este tipo de abordagem é definido como categorial dado que conceptualiza os psicopatas taxologicamente como uma classe distinta (i.e., psicopatas *versus* não-psicopatas).

Por sua vez, os traços psicopáticos podem ser definidos como os traços/sintomas e comportamentos individuais que se manifestam de forma mais ou menos intensa e estável, e que constituem a síndrome da psicopatia. Revelam-se através de um padrão de insensibilidade emocional, manipulação e ausência de culpabilidade, importante na compreensão dos comportamentos antissociais. Estes traços têm vindo a ser associados a delinquência grave violenta, de início precoce e persistente (e.g., Andershed, Gustafson, Kerr, & Stattin, 2002; Frick, Kimonis, Dandreaux, & Farrel., 2003; Vitacco et al., 2002). Este tipo de abordagem é definido como dimensional, dado que pressupõe uma estrutura latente em que as diferenças em termos de traços psicopáticos são uma questão de grau (i.e., existe um *continuum* em que os indivíduos podem ter mais ou menos traços psicopáticos).

É possível que um dado indivíduo evidencie traços psicopáticos mais ou menos intensos e estáveis consoante estejam ou não integrados com outros traços da síndrome de psicopatia. Por exemplo, um indivíduo pode manifestar comportamentos significativos a nível da impulsividade sem que seja emocionalmente insensível; outro

indivíduo pode ser narcísico e emocionalmente insensível sem que tenha uma tendência vincada de passar impulsivamente ao ato. Há, portanto, que ponderar qual a abordagem que os autores de diferentes estudos adotaram, sendo que a grande maioria dos estudos com crianças e adolescentes e que utiliza metodologia de autorresposta se foca nos traços psicopáticos e não na psicopatia propriamente dita (Pechorro, 2011).

Diversos estudos empíricos, todavia, têm contribuído para refutar objeções sobre a aplicabilidade do constructo da psicopatia a crianças e jovens. Obradovic, Pardini, Long, e Loeber (2007) recorreram aos dados do Pittsburgh Youth Study para analisar a estabilidade dos traços psicopáticos na coorte mais jovem desse estudo, tendo concluído que a estabilidade variava entre moderada e alta ao longo do tempo decorrido entre as avaliações. Lynam, Caspi, Moffitt, Loeber, e Stouthamer-Loeber (2007) investigaram a temática da psicopatia com recurso a metodologia longitudinal e a múltiplos métodos de avaliação e informadores, analisando a estabilidade dos traços psicopáticos nos participantes quando estes tinham 13 anos e depois aos 24 anos, tendo concluído que os traços apresentavam uma estabilidade moderada.

Barry, Barry, Deming, e Lochman (2008) estudaram a estabilidade temporal, ao longo de três anos, dos traços psicopáticos em pré-adolescentes considerados agressivos, tendo observado a existência de um grau de estabilidade entre moderada a muito elevada, consoante os tipos de traços psicopáticos analisados. Pardini e Loeber (2008), por sua vez, demonstraram que uma maior estabilidade de traços psicopáticos em jovens predizia níveis mais elevados de características antissociais de personalidade na idade adulta. Também Salekin, Rosenbaum, e Lee (2008) concluíram pela existência de fortes evidências de que os indicadores de psicopatia em crianças, adolescentes e adultos partilham muitas semelhanças no que respeita à estrutura fatorial

e às associações entre problemas de comportamento e comportamentos antissociais/violentos.

Lynam et al. (2009) efetuaram um estudo com rapazes dos 7 aos 17 anos de idade ($N = 1500$), tendo verificado que os traços psicopáticos podiam ser avaliados com precisão e eram estáveis ao longo do tempo, conseguindo ainda demonstrar que é possível prever a reincidência criminal. Também Forsman, Lichtenstein, Andershed, e Larsson (2010) em uma pesquisa longitudinal prospetiva em que analisaram a relação entre psicopatia e comportamentos antissociais numa amostra ($N = 2255$) de gémeos suecos adolescentes e adultos concluíram que os traços psicopáticos eram uma variável preditora dos comportamentos antissociais.

Mais recentemente, Hemphälä, Kosson, Westerman, e Hodgins (2015) avaliaram 180 adolescentes (99 do sexo feminino e 81 do sexo masculino) em contexto clínico por abuso de substâncias, usando numa primeira fase a *Psychopathy Checklist: Youth Version* (PCL:YV; Forth, Kosson, & Hare, 2003) e, cinco anos depois, a *Psychopathy Checklist – Revised* (PCL-R; Hare, 2003). Estes autores observaram uma estabilidade moderada a alta na pontuação total e nas várias dimensões da PCL, sendo que a maioria dos participantes não manifestou mudanças ao longo do referido período de cinco anos. Os autores concluíram que os fatores subjacentes à psicopatia atuam cedo no percurso de vida.

Se considerarmos que os traços de personalidade em geral são estáveis ao longo da vida, e que nestes se incluem, obviamente, os traços psicopáticos, os resultados acima descritos não são surpreendentes. A literatura publicada até ao momento presente, apesar de não ser extensa, leva-nos a concluir, com uma margem de segurança bastante razoável, que existem evidências empíricas suficientes para se considerar que os traços psicopáticos demonstram ter uma estabilidade moderada, ou

mesmo alta, na transição da infância e da adolescência para a idade adulta (Pechorro, Jiménez, Nunes, & Hidalgo, 2016).

Tem sido defendido que os traços psicopáticos se combinam e manifestam nas mesmas dimensões que caracterizam a psicopatia em adultos, mesmo em contextos culturais/étnicos diferentes (e.g., Bijttebier & DeCoene, 2009; Frick, Barry, & Bodin, 2000; Fung, Gao, & Raine, 2010; van Baardewijk et al., 2008; van Baardewijk, Vermeiren, Stegge, & Doreleijers, 2011). A estrutura de três dimensões – traços calosos/não-emocionais, impulsividade e narcisismo – é a mais valorizada na literatura relativa a crianças e adolescentes (Feilhauer & Cima, 2013) apesar de haver autores que defendem a existência de uma quarta dimensão, designada por antissocial, associada aos comportamentos criminais propriamente ditos (e.g., Forth, Kosson, & Hare, 2003; Hare & Neumann, 2010; Neumann, Hare, & Pardini, 2015).

Nas crianças e nos adolescentes, quando as três dimensões, impulsividade, narcisismo e traços calosos/não-emocionais, se combinam, são comumente designadas por traços psicopáticos (Feilhauer & Cima, 2013; Flight & Forth, 2007). Considerando os instrumentos de medida destes traços psicopáticos, a presente investigação irá focar-se principalmente no *Antisocial Process Screening Device* (APSD; Frick & Hare, 2001) uma vez que é o instrumento mais utilizado com adolescentes e crianças a nível internacional (Johnstone & Cooke, 2004; Patrick, 2010a; Sharp & Kine, 2008).

A impulsividade, além de ser um eixo fundamental em qualquer teoria da personalidade (Lynam & Miller, 2004), é considerada um dos parâmetros centrais de várias teorias criminais. Os comportamentos impulsivos em adolescentes têm sido consistentemente associados a uma maior diversidade e quantidade de crimes e de comportamentos antissociais (e.g., Luengo, Carrillo-de-la-Peña, Otero, & Romero, 1994; Lynam, 1996, 1998). A impulsividade é, possivelmente, um dos critérios

diagnósticos mais frequentemente utilizados no *Diagnostic and Statistical Manual for Mental Disorders* (DSM-5; American Psychiatric Association, 2013). A relevância deste constructo reflete-se na realização de numerosos estudos orientados para o desenvolvimento e adaptação de medidas psicométricas da impulsividade em jovens (e.g., Chahin, Cosi, Lorenzo-Seva, & Vigil-Colet, 2010; Fossati, Barratt, Acquarini, & Di Ceglie, 2002; von Diemen, Szobot, Kessler, & Pechansky, 2007).

O narcisismo é outra das dimensões do constructo da psicopatia. Concebido inicialmente como uma defesa contra sentimentos de inadequação e inferioridade, o narcisismo tem sido conceptualizado mais recentemente como a necessidade do indivíduo ter um apreço elevado por si próprio e levar as pessoas que o rodeiam a demonstrar esse mesmo apreço. O narcisismo em adolescentes tem sido associado a problemas de comportamento, a agressão proactiva e a baixa autoestima (e.g., Washburn, McMahon, King, Reinecke, & Silver, 2004). Também esta dimensão tem merecido o interesse da comunidade científica para o desenvolvimento de medidas psicométricas do narcisismo na população juvenil forense (e.g., Calhoun, Glaser, Stefurak, & Bradshaw, 2000; Washburn et al., 2004).

Por fim, a dimensão relativa aos traços calosos/não-emocionais (também designados por traços de insensibilidade ou frieza emocional) reporta-se a um estilo afetivo (e.g., ausência de culpabilidade/remorsos, restrição da emoção) e interpessoal (e.g., falta de empatia com as outras pessoas) que surge como uma dimensão distinta do constructo da psicopatia. Estes traços têm vindo a ser referenciados como particularmente diferenciadores de adolescentes com comportamentos delinquentes mais graves e agressivos (Caputo, Frick, & Brosky, 1999; Kruh, Frick, & Clements, 2005). Daí a importância de realizar estudos para desenvolver medidas psicométricas dos traços calosos/não-emocionais em crianças e adolescentes (e.g., Essau, Sasagawa,

& Frick, 2006; Kimonis et al., 2008; López-Romero, Gómez-Fraguela, & Romero, 2015; Roose, Bijttebier, Decoene, Claes, & Frick, 2010). Na secção seguinte iremos abordar de forma detalhada um promissor novo modelo teórico de conceptualização da psicopatia, o modelo triárquico de psicopatia proposto por Patrick e colaboradores (Patrick, 2010a, 2010b; Patrick, Fowles, & Krueger, 2009).

1.3. Modelo triárquico de psicopatia

O modelo triárquico de psicopatia recentemente desenvolvido por Patrick e colaboradores (Patrick, 2010a, 2010b; Patrick, Fowles, & Krueger, 2009) conceptualiza a ousadia (*boldness*), a maldade (*meanness*) e a desinibição (*disinhibition*) como características essenciais da psicopatia, cada uma com referentes neurobiológicos específicos. Este modelo foi desenvolvido tendo por base a integração das diferentes concepções de psicopatia refletidas na literatura histórica e contemporânea (e.g., abrangência do constructo da psicopatia, natureza unitária *versus* dimensional do constructo da psicopatia, conceptualização do psicopata “bem sucedido”, comportamento criminal como uma dimensão essencial da psicopatia). Simultaneamente, este modelo procura dar resposta a um conjunto de questões que se colocam à investigação nesta área, ao mesmo tempo que fornece uma estrutura para a conceptualização e avaliação da psicopatia (Patrick & Drislane, 2015).

Patrick (2010a), na sua crítica à obra de Cleckley (1941/1988), salienta que os psicopatas são descritos como indivíduos “mascarados” de psicologicamente saudáveis nos seus relacionamentos sociais, mas que na realidade são impulsivos, irresponsáveis, manipuladores e promíscuos nas relações que estabelecem no dia-a-dia, além de serem superficiais nas suas reações emocionais e relações com as outras pessoas. Estas características prejudicariam os próprios bem como as pessoas com quem se relacionam. Cleckley (1941/1988) tende ainda a desvalorizar certas características que atualmente são consideradas essenciais na definição da psicopatia em contexto criminal, nomeadamente a agressividade brutal e predatória e a crueldade deliberada e sádica. Segundo Patrick (2010a), esta visão enviesada resultaria do facto de os indivíduos estudados por Cleckley (1941/1988) serem predominantemente provenientes de

amostras psiquiátricas com estatuto socioeconómico elevado, tendo assim um maior apoio familiar e social que os resguardava das consequências legais das suas ações.

No modelo triárquico a ousadia refere-se a um estilo interpessoal assertivo, dominante e aventureiro. Caracteriza-se pela capacidade de recuperar rapidamente de situações estressantes, por uma boa autoconfiança e tolerância ao desconhecido e, eventualmente, perigoso. Engloba o funcionamento social e não está limitada aos indivíduos antissociais ou delinquentes, sendo uma característica partilhada na população geral, mas que neste grupo está especialmente desenvolvida (Patrick, 2010a, 2010b).

A maldade inclui as características da psicopatia criminal descritas na literatura, nomeadamente frieza emocional, insensibilidade emocional, falta de empatia e crueldade (DeLisi, 2016). Basicamente inclui os aspetos agressivos, violentos, hostis, e de raiva que caracterizam a psicopatia. De acordo com Patrick (2010b), a maldade pode ser vista em muitas manifestações comportamentais da história de vida dos psicopatas, designadamente, arrogância, desafio à autoridade, desdém, crueldade física para com animais (especialmente durante a infância) e pessoas (durante a adolescência e idade adulta), variadas forma de agressão, tendência à destrutividade e a exploração de pessoas com vista a ganhos materiais.

A desinibição está relacionada com a impulsividade, irresponsabilidade, impaciência, incapacidade de adiar a gratificação e tendência geral a não conseguir controlar o próprio comportamento. Esta faceta traduz a noção geral de que os psicopatas têm défices sérios na autorregulação de impulsos e de afetos que conduz a uma incapacidade de autocontrolo em variados contextos. Enquanto a maioria dos indivíduos da população geral é capaz de inibir os seus comportamentos tendo por base emoções como vergonha, embaraço e culpa, os psicopatas não sentem estas emoções e

não dispõem assim das inibições emocionais que lhes permitiriam controlar comportamentos nefastos (Sellbom, 2019).

A neurobiologia constitui uma das bases essenciais do modelo triárquico (Patrick & Drislane, 2015). As três dimensões do modelo têm referenciais biocomportamentais que apresentam associações precisas com outros indicadores neurofisiológicos. Estas ligações estão particularmente bem estabelecidas no que respeita às dimensões ousadia e desinibição. A ousadia corresponde à faceta neuro-comportamental da sensibilidade à ameaça, presumindo-se que reflita diferenças individuais na reatividade do sistema defensivo interno do cérebro baseado na amígdala e estruturas afiliadas. A desinibição corresponde ao domínio neuro-comportamental do controle inibitório, presumindo-se que reflete diferenças do cérebro frontal na capacidade de restringir o comportamento e regular o afeto ao serviço de objetivos não-imediatos (Sellbom, 2019).

De acordo com Patrick (2018), à medida que aumenta o conhecimento dos correlatos neurológicos e comportamentais das dimensões da psicopatia, será possível avaliar as suas inter-relações e formar compósitos de indicadores convergentes desses domínios que possam complementar as avaliações baseadas em relatórios. Por exemplo, as tendências desinibitórias poderiam ser quantificadas usando variantes de P3 e indicadores de desempenho cognitivo, juntamente com escalas psicométricas, enquanto os traços calosos de personalidade poderiam ser operacionalizados utilizando indicadores comportamentais e neurológicos do processamento de medo-face (*fear-face*) combinados com dados de escalas psicométricas. Esta abordagem multidomínio para quantificar tendências psicopáticas será provavelmente vantajosa para identificar os circuitos cerebrais relevantes em estudos de neuro-imagem, para traçar o surgimento de desvios de processamento cognitivo-afetivos ao longo do tempo em estudos de

desenvolvimento neurológico e para planejar intervenções eficazes orientadas para prevenir ou remediar esses desvios de processamento. Desta forma as evidências neurocientíficas e neuro-psicológicas tenderão a ganhar cada vez mais protagonismo em contexto forense, esperando-se que influenciem cada vez mais a tomada de decisão legal (LaDuke, Locklair, & Heilbrun, 2018).

Um número progressivamente crescente de estudos empíricos publicados tem fornecido suporte ao modelo triárquico da psicopatia. Por exemplo, Sellbom e Phillips (2013), num estudo com mulheres detidas e estudantes universitários, verificaram que as dimensões triárquicas explicavam a variância de forma consistente com as expectativas conceituais. Na amostra das mulheres detidas, e no que diz respeito à relação entre as dimensões triárquicas e os traços de personalidade, os resultados mostraram que a ousadia estava preferencialmente associada ao narcisismo, busca de sensações e baixa inibição comportamental; a maldade estava relacionada com o maquiavelismo, a baixa empatia e a baixa inibição comportamental; e a desinibição estava correlacionada com a impulsividade e a busca de divertimento. Na amostra universitária, a ousadia estava correlacionada positivamente com potência social, imunidade ao stresse e ausência de medo; a maldade apresentava uma associação positiva com a frieza emocional, a insensibilidade emocional, o egocentrismo e o narcisismo; enquanto a desinibição se correlacionava positivamente com o comportamento antissocial, a impulsividade, a externalização da culpa, a rebeldia, o não-conformismo e a despreocupação com ausência de planeamento. Tais resultados são, na generalidade, consistentes com os pressupostos teóricos do modelo.

Em termos de operacionalização, a maioria dos estudos empíricos tem utilizado a *Triarchic Psychopathy Measure* (TriPM; Patrick, 2010b), uma medida de 58 itens, com formato de autorresposta, que operacionaliza a ousadia, a maldade e a desinibição

em escalas separadas (Patrick & Drislane, 2015). A TriPM tem sido traduzida em vários idiomas (e.g., grego, espanhol, italiano) e usada em amostras com adultos de diversos contextos, nomeadamente forense, clínico, universitário e comunitário (e.g., Poy, Segarra, Esteller, López, & Moltó, 2014; Stanley, Wygant, & Sellbom, 2013). Uma limitação óbvia da TriPM consiste no facto de ter sido concebida originalmente para adultos, criando um problema considerável ao nível da investigação que tem vindo a focar-se na avaliação de crianças e jovens (Patrick, Fowles, & Krueger, 2009).

Drislane et al. (2015) tentaram colmatar este problema desenvolvendo o *Youth Psychopathic Traits Inventory – Triarchic* (YPI-Tri; Drislane et al., 2015), uma medida de 33 itens em formato de autorresposta cotada em escala *Likert* de quatro pontos que pretende medir o modelo triárquico através de itens do YPI original (Andershed et al., 2002; Ribeiro da Silva, da Motta, Rijo, Pechorro, & Gonçalves, 2017). O YPI-Tri foi desenhado por Drislane et al. (2015) com base em duas amostras de estudantes universitários ($n = 197$ e $n = 453$) usando um procedimento em três passos: 1) recurso a uma abordagem baseada no consenso para selecionar itens a partir do *pool* de itens originais do YPI; 2) as escalas do YPI-Tri passaram depois por um processo de refinamento; e 3) uma fase final de análise das propriedades psicométricas. Pontuações mais altas no YPI-Tri refletem níveis superiores de traços psicopáticos triárquicos. O YPI-Tri ficou constituído por três escalas consistentes com o modelo triárquico da psicopatia, nomeadamente Ousadia (10 itens), Maldade (10 itens) e Desinibição (14 itens).

A análise das propriedades psicométricas do YPI-Tri revelou valores adequados de consistência interna, através do alfa de Cronbach e correlações item-total, de validade convergente e de validade discriminante. Todavia, na análise fatorial confirmatória não se obteve um adequado ajustamento do modelo quando se

consideravam os índices de ajustamento mais frequentemente utilizados (e.g., CFI, TLI; ver Drislane et al., 2015). Tal é particularmente problemático atendendo que a moderna teoria psicométrica considera que é a demonstração da existência de invariância de medida com índices de ajustamento satisfatórios que legitima a comparação de grupos e a análise de associações das pontuações obtidas por determinada escala (Millsap & Olivera-Aguilar, 2012).

Para além do estudo de validação, a investigação sobre o YPI-Tri tem sido quase inexistente. Temos conhecimento apenas de um estudo recente efetuado por Ruchensky, Edens, Donnellan, Hawes, e Mulvey (in press) com uma amostra forense ($N = 928$) de adolescentes com problemas com a lei. Estes autores analisaram a validade incremental do YPI-Tri comparando-o com o YPI original. Os resultados demonstraram que as escalas constituintes do YPI-Tri estavam fortemente correlacionadas com as escalas originais do YPI ($r = .56 - .96$) e que algumas associações eram contrárias às predições e resultados anteriores sobre o modelo triárquico (e.g., a YPI-Boldness não estava inversamente relacionada com a sintomatologia). De salientar ainda que neste estudo não se analisou a estrutura fatorial do YPI-Tri. Face aos resultados obtidos, os autores aconselharam alguma precaução na utilização do YPI-Tri para estudar o modelo triárquico. Todavia, certos autores (ver e.g., Sleep, Weiss, Lynam, & Miller, 2019) argumentam que o problema não está especificamente no instrumento utilizado para medir a faceta da Ousadia mas sim na faceta em si dado que existem múltiplas evidências de que esta não demonstra conceptualmente adequada validade de critério e convergente (e.g., com comportamento externalizante).

Da revisão da literatura efetuada não temos conhecimento até ao momento de as propriedades psicométricas do YPI-Tri terem sido examinadas em amostras forenses femininas ou em amostras comunitárias de adolescentes de ambos os sexos, nem de o

YPI-Tri ter sido validado noutros idiomas e culturas. A quase total ausência de investigação relativamente a esta medida psicométrica em particular, e ao modelo triárquico em geral, utilizando amostras de adolescentes, requer mais pesquisa e eventual desenvolvimento de uma versão revista e melhorada da mesma. Na secção seguinte proceder-se-á a uma revisão das principais medidas disponíveis para avaliação do constructo de psicopatia em jovens.

1.4. Avaliação da psicopatia em jovens: uma revisão das medidas

A psicopatia pode ser considerada um constructo multidimensional de personalidade composto pelas componentes afetiva (e.g., déficit de afeto, ausência de culpa e empatia), interpessoal (e.g., narcisismo, manipulação, grandiosidade) e comportamental (e.g., impulsividade, estilo de vida desviante). Estas componentes contribuem para a identificação de indivíduos que persistentemente se envolvem em comportamentos criminais e antissociais graves (Douglas, Vincent, & Edens, 2006; Hare & Neumann, 2008; Porter & Woodworth, 2006).

As várias tentativas recentemente concretizadas para alargar o conceito de psicopatia aos jovens sugerem que aqueles que apresentam traços psicopáticos elevados são um grupo particularmente importante de ofensores que tendem a cometer delitos graves e violentos de forma mais persistente, além de demonstrarem menor ressonância às abordagens terapêuticas (Edens, Campbell, & Weir, 2007; Frick & White, 2008; Salekin & Lynam, 2010). Portanto, os traços psicopáticos podem ter forte relevância forense e clínica para identificar um subgrupo de jovens antissociais, com etiologias únicas e comportamentos delituosos particularmente graves (e.g., Forth & Book, 2010; López-Romero, Romero, & Luengo, 2012; López-Romero, Gómez-Fraguela, & Romero, 2015).

O trabalho de Cleckley (1941/1988) constituiu a base sobre a qual se desenvolveu a *Psychopathy Checklist* (PCL e PCL-R; Hare, 1991, 2003; Gonçalves & Cunha, 2017), considerado o instrumento psicométrico mais utilizado na avaliação da psicopatia em adultos a nível internacional. A partir deste instrumento pioneiro construíram-se vários outros, adaptados para avaliar o constructo da psicopatia em crianças e adolescentes, sendo de salientar os seguintes: *Psychopathy Checklist: Youth Version* (PCL:YV; Forth, Kosson, & Hare, 2003), *Antisocial Process Screening Device*

(APSD; Frick & Hare, 2001), *Child Psychopathy Scale* (CPS; Lynam, 1997) e *Youth Psychopathic Traits Inventory* (YPI; Andershed, Kerr, Stattin, & Levander, 2002).

A maioria dos instrumentos de avaliação da psicopatia em jovens foi adaptada e validada em Portugal (Pechorro, Maroco, Poiares, & Vieira, 2013; Pechorro, Andershed, Ray, Maroco, & Gonçalves, 2015; Pechorro, Barroso, Maroco, Vieira, & Gonçalves, 2015). Em Portugal foram também validados instrumentos de referência que avaliam as três dimensões da psicopatia em jovens, nomeadamente traços de calosos/não-emocionais (*Inventory of Callous-Unemotional Traits*; Essau et al., 2006; Pechorro, Ray, Barroso, Maroco, & Gonçalves, 2016), impulsividade (*Barratt Impulsiveness Scale – 11*; Fossati et al., 2002; Pechorro, Ray, Maroco, & Gonçalves, 2015) e narcisismo (*Narcissistic Personality Inventory – 13*; Gentile et al., 2013; Pechorro, Gentile, Ray, Nunes, & Gonçalves, 2016). Os resultados destes estudos de validação demonstraram que estes instrumentos têm propriedades psicométricas satisfatórias e são adequados para utilização com a população juvenil portuguesa.

Johnstone e Cooke (2004) salientam que, independentemente do aumento da quantidade de instrumentos desenvolvidos para avaliar a psicopatia em crianças e adolescentes, é importante que os instrumentos sejam adequados e aperfeiçoados no que diz respeito às propriedades psicométricas. Instrumentos com problemas psicométricos suscitam dúvidas de fiabilidade e validade relativamente aos dados da investigação e da avaliação clínica forense obtidos. Por exemplo, a falta de concordância quanto ao número de dimensões que constituem o constructo da psicopatia em jovens é um assunto de extrema importância que deverá ser aprofundadamente investigado para que seja possível comparar diretamente os resultados de diferentes investigações com recurso a diferentes amostras (e.g., forenses, clínicas, comunitárias).

Apesar de a PCL ser frequentemente considerada o padrão de ouro (*gold standard*) na avaliação da psicopatia, não é o instrumento ideal para avaliar o funcionamento psicopático em amostras grandes porque requer formação aprofundada da parte dos examinadores e bastante tempo de administração. Adicionalmente, a PCL tem pouca utilidade com certos tipos de amostras (e.g., comunitárias) dado que o seu completamento requer informação adicional (e.g., dados oficiais institucionais) que frequentemente não está disponível na maioria das investigações. Outros formatos de resposta, nomeadamente autorresposta e escalas de avaliação que utilizam outros intervenientes (e.g., pais, professores), tiveram de ser desenvolvidos de forma a colmatar tais problemas (ver Andershed, Gustafson, Kerr, & Stattin, 2002; Caputo et al., 1999; Frick et al., 2000; Lynam, 1997). A presente investigação irá centrar-se em três instrumentos psicométricos, que serão descritos a seguir.

O *Antisocial Process Screening Device* (APSD; Frick & Hare, 2001) foi originalmente concebido para avaliar crianças com idades entre os 6 e 13 anos. O APSD tem vindo a ser traduzido e adaptado para diversos idiomas, nomeadamente francês, holandês, chinês, português e castelhano/espanhol (e.g., Deshaies, Toupin, & Déry, 2009; De Wied, Van der Baan, Raaijmakers, De Rooter, & Meeus, 2014; Pechorro et al., 2013; Romero, Luengo, Gómez-Fraguela, Sobral, & Villar, 2005; Wang, Deng, Armour, Bi, & Zeng, 2015). O APSD é composto por 20 itens com resposta em escala ordinal de três pontos (0 = Falso, 1 = Algumas vezes verdade, 2 = Totalmente verdade). Os conteúdos dos itens foram adaptados para refletir as experiências de vida das crianças na escola, com a família e entre pares. O APSD é, basicamente, uma adaptação para crianças da *Psychopathy Checklist – Revised* (PCL-R; Hare 1991, 2003), que é preenchida por adultos (pais, professores).

Caputo et al. (1999) adaptaram uma versão experimental do APSD baseada em autorresposta (APSD-SR) para jovens dos 12 aos 18 anos. Estes autores, verificaram numa amostra de adolescentes institucionalizados ($N = 69$), que as pontuações no APSD-SR conseguiam distinguir ofensores sexuais violentos dos ofensores sexuais não-violentos e dos ofensores não-violentos, sendo que as pontuações estavam correlacionadas com a multiplicidade de delitos prévios à institucionalização e com a violência durante a institucionalização. De acordo com Frick, Barry, e Bodin (2000), as autorrespostas tornam-se mais fiáveis, válidas e úteis à medida que a criança entra na adolescência, especialmente no que concerne às tendências antissociais e às atitudes que podem não ser observáveis por pais e outros adultos. No entanto, por não ter sido originalmente concebido para ser utilizado com jovens ofensores, é especialmente importante avaliar as propriedades psicométricas do APSD-SR nesta população.

Vários estudos avaliaram as qualidades psicométricas do APSD através de métodos de análise fatorial. Frick, Barry, e Bodin (2000) analisaram a estrutura fatorial do APSD original numa amostra não-clínica ($n = 1136$) e numa amostra clínica ($n = 160$) de crianças, tendo proposto um novo modelo tridimensional, em oposição ao anterior modelo bidimensional. Todavia, reconheceram que este novo modelo não possuía um melhor ajustamento que o anterior, não extraía mais variância e excluía os itens 2 e 6. Posteriormente, Frick e Hare (2001), ao reverem os resultados de estudos adicionais, argumentaram que o modelo tridimensional – composto pelas dimensões traços calosos/não-emocionais (CU), impulsividade (Imp) e narcisismo (Nar) – é o mais consistente. Estes autores também salientaram a importância dos traços calosos/não-emocionais, definidos como um estilo afetivo (e.g., ausência de culpa) e interpessoal (e.g., falta de empatia), que emerge como uma dimensão distinta que pode identificar delinquentes juvenis graves de uma forma que as outras dimensões não conseguem.

Alguns estudos que utilizaram a versão de autorresposta do APSD (i.e., APSD-SR) obtiveram evidências empíricas que suportam o modelo tridimensional. Por exemplo, Vitacco, Rogers, e Neumann (2003), em duas amostras de delinquentes juvenis do sexo masculino e do sexo feminino detidos em estabelecimento de máxima segurança ($n = 78$) e em estabelecimento de detenção juvenil local ($n = 77$), encontraram um bom ajustamento apenas para o modelo tridimensional. Todavia, os itens 19 e 20 não atingiram uma saturação mínima de .30, o que levantou questões sobre a adequação destes itens à dimensão de traços calosos/não-emocionais. Poythress, Dembo, Wareham, e Greenbaum (2006), tendo como amostra jovens detidos pela primeira vez ($N = 165$), reportaram um bom ajustamento para uma versão modificada do modelo tridimensional do APSD-SR excluindo os itens 19 e 20.

A investigação transcultural do APSD-SR realizada com amostras fora do contexto Norte-americano não tem revelado resultados consistentes. Com base numa amostra de jovens delinquentes detidos na Rússia ($N = 250$), Fritz, Ruchkin, Kaposov, e Klinteberg (2008), não encontraram bons ajustamentos, nem para o modelo bidimensional, nem para o modelo tridimensional, mas optaram por utilizar o tridimensional. Pechorro et al. (2013), numa amostra mista forense e comunitária composta por rapazes e raparigas portuguesas ($N = 760$) de grupos étnicos diferentes, concluíram que um modelo bidimensional modificado (incluindo os itens 2 e 6) era a melhor opção em termos de validade estrutural e consistência interna. Colins et al. (2014) analisaram a estrutura fatorial do APSD-SR numa amostra de raparigas detidas na Bélgica ($N = 191$), tendo concluído que nem o modelo bidimensional nem o modelo tridimensional apresentavam um bom ajustamento, apesar do bidimensional se mostrar mais aceitável. Todavia, optaram por utilizar o modelo tridimensional porque era o recomendado pelos autores do instrumento. Mais recentemente, Pechorro, Hidalgo,

Nunes, e Jiménez (2016) em uma amostra forense de rapazes ($N = 438$) encontraram suporte para a estrutura tridimensional, após o item 20 ter sido removido da dimensão de traços calosos/não-emocionais devido a baixa saturação.

Outra questão importante no que diz respeito às propriedades psicométricas do APSD-SR é a consistência interna da dimensão de traços calosos/não-emocionais (CU). Poythress, Douglas et al. (2006) verificaram que os coeficientes do alfa de Cronbach relativos à dimensão CU eram relativamente fracos em dez estudos com jovens envolvidos em problemas judiciais, levantando a hipótese de ser devido a um estilo defensivo associado ao contexto judicial em que se encontravam. Estes autores sugeriram que os itens 19 e 20 deveriam ser excluídos da dimensão CU quando se utilizavam amostras forenses, o que foi corroborado por Pechorro et al. (2016) relativamente ao item 20.

No que concerne à validade convergente, divergente e de critério, a investigação tem demonstrado que os traços psicopáticos estão positivamente correlacionados com a idade de início da atividade criminal, perturbação do comportamento, agressão, delinquência e consumo de drogas e álcool (Ciucci, Baroncelli, Franchi, Golmaryami, & Frick, 2014; Essau, Sasagawa, & Frick, 2006; Fanti, Frick, & Georgiou, 2009; Kimonis et al., 2008; Roose et al., 2010). Alguns estudos também examinaram as associações entre o APSD e outras medidas que medem traços calosos/não-emocionais (e.g., ICU, PCL:YV) tendo, em geral, encontrado forte convergência (Fink, Tant, Tremba, & Kiehl, 2012; Kimonis et al., 2008; Roose et al., 2010).

Outro instrumento utilizado nesta tese e que tem sido objeto de numerosa pesquisa é o *Youth Psychopathic Traits Inventory* (YPI) (Andershed et al., 2002), traduzido e validado em diversos idiomas, entre os quais se incluem o francês, holandês,

islandês, português, russo e chinês (e.g., Hillege, Das, & de Ruiter, 2010; Oshukova et al., 2015; Pechorro et al., 2015; Skeem & Cauffman, 2003; Veen et al., 2011; Wang et al., 2017). O YPI é constituído por 50 itens agrupados em três fatores de segunda ordem que, por sua vez, são compostos por dez fatores de primeira ordem: Grandiosidade-Manipulação (Charme desonesto, Grandiosidade, Mentira, Manipulação), Frieza-Insensibilidade emocional (Ausência de Remorso, Frieza emocional, Insensibilidade); e Impulsividade-Irresponsabilidade (Procura de excitação, Impulsividade, Irresponsabilidade).

A resposta aos itens do YPI é dada numa escala ordinal de quatro pontos (1 = Discordo muito; 2 = Discordo; 3 = Concordo; 4 = Concordo muito), tendo alguns itens (23; 35 e 49) cotação invertida. A cotação da escala total e das subescalas é obtida através do somatório do resultado dos itens, sendo que pontuações mais elevadas indicam um maior nível de traços psicopáticos. O YPI foi construído tendo por base as conceptualizações históricas da psicopatia (Cleckley, 1941/1988; Hare, 2003), avaliando os dez traços de personalidade associados ao constructo, que convergem nos três fatores de segunda ordem acima referidos. O YPI tem a vantagem de avaliar traços psicopáticos de forma eficiente em termos de custos (e.g., tempo de administração mais reduzido), além de minimizar a possibilidade de respostas defensivas dado que os itens tendem a ser vistos de forma neutral ou até desejável pelos jovens que exibem tais traços (Andershed et al., 2002). Outra vantagem é a ausência propositada de itens que exploram os problemas de comportamento ou criminais, uma vez que os autores argumentam que o comportamento antissocial não é um traço inerente da psicopatia (Cooke & Michie, 2001; Skeem & Cooke, 2010).

Apesar de ter sido concebido para avaliar traços psicopáticos em jovens provenientes de amostras comunitárias, o YPI tem provado ser uma medida que mantém

boas propriedades psicométricas quando usado em contexto forense (Kotler & McMahon, 2010). No estudo original, Andershed et al. (2002) recorreram a uma amostra comunitária de adolescentes suecos para analisar as propriedades psicométricas do YPI, tendo a análise fatorial confirmatória apoiado o modelo com três fatores: Grandiosidade-Manipulação, Frieza-Insensibilidade emocional e Impulsividade-Irresponsabilidade. Vários estudos reportaram a mesma estrutura de três fatores em amostras comunitárias (e.g., Hillege et al., 2010; Neumann & Pardini, 2014; Seals, Sharp, Ha, & Michonski, 2012), em amostras institucionalizadas/forenses (e.g., Andershed, Hodgins, & Tengstrom, 2007; Colins, Bijttebier, Broekaert, & Andershed, 2014; Dolan & Rennie, 2006; Pechorro, Andershed, Ray, Maroco, & Gonçalves, 2015; Veen et al., 2011) e em amostras mistas de rapazes e raparigas (Declercq, Markey, Vandist, & Verhaeghe, 2009; Poythress et al., 2006).

O YPI tem registado, na generalidade, coeficientes bons a nível da consistência interna para a escala total e para os fatores Grandiosidade-Manipulação e Impulsividade-Irresponsabilidade (e.g., Andershed et al., 2002, 2007; Colins et al., 2013; Oshukova et al., 2015; Pechorro et al., 2015; Pihet et al., 2014; Poythress et al., 2006; Veen et al., 2011). Todavia, os resultados para o fator Frieza-Insensibilidade emocional mostram-se divergentes com alguns estudos a reportarem fraca consistência interna (Oshukova et al., 2015; Poythress et al., 2007), e outros a obterem valores que refletem uma consistência interna entre aceitável e boa (Andershed et al., 2007; Hillege et al., 2010; Ribeiro da Silva et al., 2017; Pihet et al., 2014; Seals et al., 2012; Skeem & Cauffman, 2003; Veen et al., 2011). Mais especificamente, as fragilidades na consistência interna deste fator relacionam-se com as subescalas de Ausência de Remorso, Frieza emocional e Insensibilidade (Pechorro et al., 2015; Pihet et al., 2014; Poythress et al., 2007).

Considerando a validade convergente, as pontuações no YPI mostraram-se positivamente relacionadas com outras medidas que avaliam traços psicopáticos, nomeadamente o *Antisocial Process Screening Device* (Colins et al., 2013; Poythress et al., 2007; Seals et al., 2012; Pechorro et al., 2013), o *Inventory of Callous-Unemotional Traits* (Pechorro et al., 2016) e a *Psychopathy Checklist: Youth Version* (Andershed et al., 2007; Skeem & Cauffman, 2003). Adicionalmente, as pontuações no YPI demonstraram estar positivamente correlacionadas com agressividade, psicopatologia externalizante, problemas de comportamento, comportamentos de risco, delinquência, comportamento criminal, e abuso de álcool e drogas (Andershed et al., 2002; Declercq et al., 2009; Dolan & Rennie, 2006; Hillege et al., 2012; Neumann & Pardini, 2014; Pechorro et al., 2015; Poythress et al., 2007; Seals et al., 2012; Veen et al., 2011).

Na análise da validade discriminante, em que se analisam as associações com outros constructos que não são sobreponíveis ao de psicopatia, o YPI registou correlações negativas com uma medida de empatia básica em adolescentes (BES; Pechorro, Ray, Salas-Wright, Maroco, & Gonçalves, 2015) e correlações não significativas com uma medida de ansiedade social em adolescentes (SAS-A; Pechorro et al., 2015).

Na pesquisa sobre as diferenças de género, os rapazes tendem a obter pontuações mais elevadas que as raparigas tanto na escala total como nas três dimensões (Andershed et al., 2002; Declercq et al., 2009). Quando se comparam amostras de rapazes provenientes de contexto forense com amostras de rapazes da comunidade verifica-se que os primeiros tendem a obter resultados mais elevados na escala total e nos três fatores (Pechorro et al., 2016; Pihet et al., 2014; Ribeiro da Silva et al., in press). Alguns estudos têm demonstrado invariância de medida do YPI relativamente ao género e ao tipo de amostra (Pechorro et al., 2016; Pihet et al., 2014).

A versão curta do YPI (YPI-S; van Baardewijk et al., 2010), composta por 18 itens, foi desenvolvida com o intuito de ser uma medida breve que mantivesse a estrutura de três fatores da versão original. Apesar de os estudos psicométricos sobre o YPI-S serem ainda pouco numerosos, há evidências que demonstram boas propriedades psicométricas em rapazes e raparigas provenientes do contexto comunitário e do forense (Colins & Andershed, 2016; Colins et al., 2012; Fossati et al., 2015; Orue & Andershed, 2015; Pechorro, Andershed et al., 2015; Pechorro et al., 2017; van Baardewijk et al., 2010).

O YPI-S, no estudo original com uma amostra de 2105 jovens (van Baardewijk et al., 2010), demonstrou ser uma medida fiável do modelo de três fatores da psicopatia (Cooke & Michie, 2001), com valores de consistência interna que variam entre aceitáveis a boas. Estudos posteriores obtiveram valores de consistência interna semelhantes para a escala total e para a dimensão Grandiosidade-Manipulação, mas valores mais baixos relativamente às dimensões Frieza-Insensibilidade emocional e Impulsividade-Irresponsabilidade (Colins & Andershed, 2016; Colins et al., 2012; Fossati et al., 2015; Orue & Andershed, 2015; Pechorro et al., 2015; Pechorro et al., 2017). Apesar de terem sido removidos quase dois terços dos itens do YPI original, os coeficientes de fiabilidade mantiveram-se satisfatórios. Foram encontradas correlações moderadas entre o YPI-S total e as suas dimensões (Colins et al., 2012; Fossati et al., 2015; Orue & Andershed, 2015; Pechorro, Gonçalves, Andershed, & DeLisi, 2017; van Baardewijk et al., 2010), sendo que o YPI-S demonstrou estar fortemente correlacionado com o YPI original (e.g., Pechorro et al., 2015; van Baardewijk et al., 2010).

No estudo de Pechorro et al. (2015) em que se comparou o YPI-S e o YPI original numa amostra forense de jovens detidos, o YPI-S apresentou menos problemas

de fiabilidade que o YPI. O facto de o YPI-S não incluir as dez subescalas originais e os itens com cotação invertida do YPI pode ter contribuído decisivamente para resolver alguns dos problemas de consistência interna da versão original (Andershed et al., 2002; Colins et al., 2012; Pihet, Suter, Meylan, & Schmid, 2014).

O YPI-S demonstrou estar positivamente relacionado com outras medidas que avaliam traços psicopáticos (Pechorro et al., 2015; Ray, Pechorro, & Gonçalves, 2016), agressividade (Orue & Andershed, 2015; Pechorro, Andershed et al., 2015; Ray et al., 2016), *bullying/cyberbullying* (Orue & Andershed, 2015), abuso de drogas e álcool (Pechorro, Andershed et al., 2015), problemas de comportamento, crime, e delinquência (Colins & Andershed, 2016; Colins et al., 2012; Fossati et al., 2015; Pechorro, Andershed et al., 2015; Pechorro, Gonçalves et al., submetido; Ray et al., 2016). Por outro lado, o YPI-S registou associações nulas ou negativas com medidas de ansiedade social e de empatia (Pechorro, Andershed et al., 2015).

Considerando a variável género, alguns estudos reportam que os rapazes obtêm pontuações significativamente mais elevadas no YPI-S total e nas três dimensões que as raparigas (Colins et al., 2012; Pechorro, Ribeiro da Silva et al., 2017). Os estudos mostram ainda que os rapazes de amostras provenientes de contexto forense têm pontuações mais elevadas que os rapazes provenientes de contexto comunitário (Orue & Andershed, 2015). Relativamente à invariância de medida, alguns estudos demonstraram que esta existe no YPI-S, ainda que de forma parcial (Colins et al., 2012; Pechorro, Ribeiro da Silva et al., 2017; Orue & Andershed, 2015).

Outro instrumento utilizado neste trabalho, a *Childhood and Adolescent Taxon Scale* (CATS; Harris, Rice, & Quinsey, 1994), foi desenvolvido como uma medida da dimensão “comportamento antissocial persistente” da psicopatia. A CATS baseia-se em

oito itens sobre a história infantil e juvenil de cada indivíduo, nomeadamente: 1. Má adaptação durante a escolaridade básica (pelo menos um problema menor de disciplina ou de assiduidade); 2. Problema de álcool na adolescência; 3. Problema de agressividade na infância (pelo menos uma agressão física menor ocasional antes dos 15 anos); 4. Problema de comportamento antes dos 15 anos; 5. Suspensão ou expulsão da escola; 6. Preso antes dos 16 anos; 7. Alcoolismo parental; 8. Viveu com ambos os pais biológicos até aos 16 anos (exceto por morte de um deles).

A CATS pode ser preenchida através de autorresposta e/ou de registos oficiais (clínicos, forenses, etc.). Uma vantagem da CATS é que se baseia em factos da história de vida de cada indivíduo que podem ser objetivamente verificados, e não apenas em autorrespostas subjetivas acerca de característica da personalidade ou afetivas cuja medição é menos fiável. Tal pode ser muito útil no âmbito da avaliação forense, em que as pessoas geralmente estão menos disponíveis para admitir traços socialmente indesejáveis, como a frieza e a insensibilidade emocional.

Os itens da CATS registam correlações positivas com as pontuações da PCL-R e podem ser utilizados para a substituir no *Violence Risk Appraisal Guide* (Bolton, 2006; Glover et al., 2002; Quinsey, Harris, Rice, & Cormier, 2006) dada a morosidade de aplicação da PCL-R. Os itens da CATS permitem distinguir uma classe (*taxon*) de indivíduos que podem ser designados como psicopatas e não apenas como tendo pontuações altas em psicopatia (Edens et al., 2006; Harris et al., 1994; Walters, Duncan, & Mitchell-Perez, 2007). Outros estudos demonstraram que a CATS e a sua versão de autorresposta (CATS-SR) apresenta validade de critério em amostras comunitárias de homens, incluindo estudos sobre fraude, jogo, engano e coação sexual (Belmore & Quinsey, 1994; Lalumière, Chalmers, Quinsey, & Seto, 1996; Lister, 2010; Mishra et al., 2009; Seto, Khattar, Lalumière, & Quinsey, 1997).

Skilling, Quinsey e Craig (2001) efetuaram análises taxonómicas em versões modificadas da CATS e da PCL:YV (Forth et al., 2003), ambas em formato de autorresposta e em rapazes, tendo encontrado evidências de uma classe subjacente ao comportamento antissocial persistente. Todavia, não está completamente estabelecido que as pontuações no CATS sejam válidas em raparigas, apesar de haver alguns dados que sugerem que pode ser utilizada com mulheres adultas em contexto forense (Folsom & Atkinson, 2007).

Até ao momento presente, nenhum estudo de que tenhamos conhecimento examinou a validade da CATS em amostras de raparigas em contexto forense, mais particularmente em jovens detidas. Tal é relevante dado que diversos estudos demonstraram que rapazes e raparigas tendem a apresentar diferenças no constructo da psicopatia em aspetos como a validade fatorial, validade concorrente e validade preditiva (e.g., Schmidt, McKinnon, Chattha, & Brownlee, 2006; Sevecke, Pukrop, Kosson, & Krischer, 2009). Subsistem também dúvidas acerca da aplicabilidade e possibilidade de generalização das pontuações da CATS para outras culturas e idiomas, dado que aspetos como a etnicidade podem influenciar a expressão de traços psicopáticos (e.g., Anderson, Walsh, & Kosson, 2018; Cooke, Michie, Hart, & Clark, 2005). A CATS tem sido principalmente estudada na América do Norte, mais especificamente nos EUA e no Canadá, pelo que são necessários estudos com amostras europeias.

De salientar que o tipo de medidas acima referidas com formato de autorresposta e que medem os características antissociais e criminais são instrumentos muito utilizados na psicologia forense, na sociologia forense e na criminologia desde há décadas (Thornberry & Krohn, 2000). No caso específico da investigação em psicopatia, existem várias noções incorretas e sem suporte empírico que têm sido

veiculadas na literatura quanto à validade das medidas de autorresposta que levou alguns autores inicialmente a rejeitarem o valor deste tipo de formato. Todavia, várias investigações têm vindo a demonstrar que não existe perda significativa da validade deste tipo de medidas e que estas podem ser bastante úteis (e.g., Lilienfeld & Fowler, 2006; Ray et al., 2013; Watts et al., 2015).

No âmbito da avaliação psicológica é imprescindível ter-se em consideração qual o contexto e o método de avaliação. Miller, Jones, e Lynam (2011) argumentam que os indivíduos com personalidade de tipo psicopático são capazes de relatar de forma fiável as suas características quando não existem consequências nefastas diretas para si próprios. Desta forma, para fins de investigação, a obtenção de respostas fidedignas em medidas de autorresposta de psicopatia é facilitada, por exemplo, pela aplicação anónima em contexto de grupo ou através de garantia por escrito de que os resultados não serão utilizados para fins judiciais. Já nos processos de avaliação psicológica em contexto forense ou clínico é consensual que na realização de perícias judiciais nunca se deve utilizar apenas os questionários de autorresposta, mas sim adotar uma abordagem baseada em múltiplos métodos e com recolha de dados provenientes de outras fontes (e.g., dados oficiais) que estejam disponíveis (Bonta & Andrews, 2017; Machado, Gonçalves, & Matos, 2011). É primordial que tais recomendações sejam seguidas dado que os indivíduos em contexto forense podem antecipar consequências negativas a nível judicial e assim manifestarem tendência para dar respostas enviesadas.

Tendo por base a revisão conceptual, foram estabelecidos os objetivos e as questões de investigação da presente tese, que serão apresentados de seguida.

1.5. Objetivos e questões de investigação

A revisão da literatura científica permite-nos concluir que a investigação da reincidência criminal e da sua ligação ao constructo da psicopatia, tal como este se manifesta sob a forma de traços psicopáticos em jovens delinquentes internados em Centro Educativo, permanece por estudar em Portugal e na generalidade dos países do sul da Europa. Por outro lado, afigura-se primordial adaptar e validar instrumentos em jovens portugueses provenientes de contexto forense e escolar para garantir que as variáveis a serem analisadas são válidas e fiáveis do ponto de vista psicométrico (Simões, Almeida, & Gonçalves, 2017). O foco nestas duas lacunas constitui a base da presente investigação.

O desenho da presente investigação pode ser definido como quantitativo, transversal e não-experimental (Bachman & Schutt, 2014; Gliner, Morgan, & Leech, 2016), seguindo critérios de rigor científico com vista a garantir a fiabilidade da prática psicológica e a, eventualmente, disseminar os resultados em revistas internacionais da área da psicologia forense e da criminologia (Gustavii, 2012). Pretende-se estudar os temas específicos descritos abaixo e respetivas questões de investigação:

I – Reincidência criminal e traços psicopáticos em rapazes e raparigas

Qual é a taxa da reincidência ao longo do período de seguimento de dois a três anos após a saída dos Centros Educativos? Que variáveis se diferenciam entre jovens reincidentes e não-reincidentes? A gravidade dos crimes e dos comportamentos violentos diminui ao longo do tempo nos reincidentes? As medidas de traços psicopáticos conseguem prever a reincidência? Qual é a melhor medida de traços psicopáticos na predição da reincidência depois de se controlar os fatores idade e história criminal?

II – Adaptação do *Youth Psychopathic Traits Inventory – Triarchic*

Esta medida de traços psicopáticos triárquicos (YPI-Tri) apresenta a esperada estrutura de três fatores em amostras forenses e escolares? Este instrumento demonstra invariância de medida relativamente ao género dos participantes e ao tipo de amostra? A sua consistência interna examinada através do alfa de Cronbach e do coeficiente Omega é adequada? As pontuações no YPI-Tri evidenciam validade convergente, discriminante e de critério? Apresentam validade relativa a grupos-conhecidos?

III – Validação da *Childhood and Adolescent Taxon Scale*

Esta medida atuarial (CATS) tem capacidade de diferenciar rapazes e raparigas provenientes de contexto forense e escolar? Evidencia validade convergente com medidas de traços psicopáticos e validade divergente com outras medidas? Está positivamente correlacionada, no que concerne à validade de critério, com as variáveis idade de início na atividade criminal, gravidade de crimes cometidos e agressividade?

Os estudos realizados na sequência dos objetivos estabelecidos e das questões colocadas resultaram em seis manuscritos publicados que são apresentados na secção seguinte da tese. Cada manuscrito é apresentado conforme a versão submetida a publicação com as alterações subsequentes efetuadas a pedido dos revisores, incluindo tabelas e referências bibliográficas. Existe também uma secção de bibliografia geral na parte final da presente tese que engloba todas as referências bibliográficas utilizadas.

2. MANUSCRITOS PUBLICADOS

2.1. Manuscrito I

Pechorro, P., Seto, M., Ray, J., Alberto, I., & Simões, M. (in press). A prospective study on self-reported psychopathy and criminal recidivism among incarcerated male juvenile offenders. *International Journal of Offender Therapy and Comparative Criminology*. Doi: 10.1177/0306624X19849569

A prospective study on self-reported psychopathy and criminal recidivism among
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not-for-profit sectors.

Abstract

The present study examines the utility of three self-report measures of psychopathic traits in predicting recidivism among a sample of incarcerated male juvenile offenders. Participants ($N=214$, $M=16.40$ years, $SD=1.29$ years) from seven Portuguese juvenile detention centers were followed and prospectively classified as recidivists versus non-recidivists. Logistic regression models controlling for past frequency of crimes and age of first incarceration revealed that the Youth Psychopathic Traits (YPI) behavioral dimension significantly predicted one-year and three-year general recidivism, and the interpersonal dimension significantly predicted three-year violent recidivism, the Childhood and Adolescent Taxon Scale – Self-report (CATS-SR) total score significantly predicted one-year general recidivism, and the Antisocial Process Screening Device – Self-Report (APSD-SR) and its dimensions failed to significantly predict general recidivism and violent recidivism. Findings mostly suggest there are limitations in terms of the incremental utility of self-report measures of psychopathic traits in predicting recidivism among juveniles, but the YPI seems promising.

Key words: crime; juvenile offenders; psychopathy; recidivism; self-report

Introduction

Psychopathy is usually considered a multidimensional construct composed of affective (e.g., guiltlessness, callousness), behavioral (e.g., impulsivity, low self-control), and interpersonal (e.g., conning, manipulation) dimensions manifesting itself as a personality disorder that is associated with antisocial behaviors and lifestyle (see e.g., Blair & Mitchell, 2009; Cooke & Michie, 2001; Hare, 2003; Skeem, Polaschek, Patrick, & Lilienfeld, 2011). Studies have demonstrated that high psychopathy scores are usually correlated with higher rates of both violent and non-violent antisocial behaviors, such as early criminal onset, early contacts with the police, early juvenile court referrals, and aggression (e.g., Andershed, Kerr, Stattin & Levander, 2002; DeLisi & Piquero, 2011; Farrington, 2005; Forth & Book, 2010; Vaughn, Howard, & DeLisi, 2008).

Although some authors have cautioned against the application of the psychopathy construct to children and adolescents (e.g., Edens, Skeem, Cruise, & Cauffman, 2001; Seagrave & Grisso, 2002), results from studies show that psychopathic traits tend to be at least moderately stable from childhood to adulthood (e.g., Colins, Andershed, Salekin, & Fanti, 2018; Lynam et al., 2009; Shiner, 2009). Indeed, research has shown that delinquent youths have more stable and chronic criminal trajectories when the precursors of psychopathy are present (DeLisi, 2016; Forth & Burke, 1998; Lynam, 1996). It seems increasingly clear that early identification of children and youths with elevated psychopathic traits may prove to be very useful in identifying candidates for early intervention (Bayliss et al., 2010; Frick, 1998).

Several instruments have been developed during the last two decades to assess psychopathic traits in adolescents (see e.g., Ribeiro da Silva, Rijo, & Salekin, 2013, for a review). The Psychopathy Checklist: Youth Version (Forth, Kosson, & Hare, 2003) is

considered by many to be the gold standard (Forth & Mailloux, 2000; Murrie & Cornell, 2002). However, self-report measures of psychopathic traits among youth have gained traction among researchers because they are easier to use, require less time to administer, and are less expensive. Presently, the self-report version of the Antisocial Process Screening Device (APSD-SR; Caputo, Frick, & Brodsky, 1999) is the most used and investigated measure of psychopathic traits in adolescents that taps the affective, behavioral, and interpersonal dimensions of psychopathy. Both the APSD (Frick & Hare, 2001) and the PCL:YV are essentially downward extensions of the Psychopathy Checklist – Revised (PCL-R; Hare, 2003) which was created to assess psychopathy among forensic samples of adults.

Another promising instrument is the Youth Psychopathic Traits Inventory (YPI; Andershed et al., 2002) which is based on Cooke and Michie's (2001) three-dimension (i.e., affective, behavioral, and interpersonal) conceptualization of psychopathy. The authors of the YPI intentionally avoided items that overlapped with behavioral outcomes (e.g., criminal behavior). This measure is commonly used for assessing non-forensic samples of youths (e.g., community samples, school samples) and for research purposes. Another interesting but much less investigated measure is the Childhood and Adolescent Taxon Scale – Self-Report (CATS-SR). This instrument was developed as a proxy measure of the persistent antisocial behavior facet of psychopathy, based on childhood and adolescence history items (e.g., childhood behavior problem before age 15; arrested under the age of 16), that could also be obtained through reviews of institutional files (Harris, Rice, & Quinsey, 1994). Some studies argue that the CATS is able to distinguish a taxon (i.e., a class) of individuals who can be designated as having psychopathy (e.g., Harris et al., 1994; Skilling, Quinsey, & Craig, 2001).

Some studies have compared the different measures (e.g., PCL:YV, YPI) and methods (e.g., self-report, interview) available to assess psychopathy among youth offenders based on how well they associate with criminal variables such as frequency of offenses, frequency of arrests, and age of crime onset (e.g., Boccaccini et al., 2007; Cauffman et al., 2009; Douglas et al., 2008; Salekin, 2008; Spain, Douglas, Poythress, & Epstein, 2004). Results tended to show little overlap between the different measures and the different methods of assessment and that the predictive capability of some psychopathy measures usually disappeared or was substantially reduced after controlling for relevant variables such as past criminal offenses and conduct disorder diagnosis. Self-report measures of psychopathy in particular tended to show less utility because of reliability, convergent validity, and malingering problems (Munoz & Frick, 2007; Salekin, Leistico, Neumann, DiCicco, & Duros, 2004; Silva, Genoves, & Latorre, 2012). For example, Asscher et al. (2011) found that clinical ratings of psychopathy had stronger associations with criminal outcomes compared to self-report measures of psychopathy, possibly reflecting the impact of social desirability or other response biases on the latter.

Despite the fact that some limitations do exist in terms of assessment, research corroborates the notion that psychopathic traits in youths can be assessed with an adequate degree of validity and reliability, and that measures of psychopathic traits do have some potential utility in terms of legal decision making with justice-involved youth and clinical decision making (Salekin, 2015). If some psychopathic traits measures, for example, prove to be better at predicting criminal behavior after controlling for previous offending among youths they would be useful in terms of implementing specific therapeutic strategies that would prevent or diminish recidivism rate; if they prove to be useful for research purposes in settings where the number of

youth far exceeds the number of assessments that can be completed in a timely way; or if they are related to young people scoring higher on the Needs (or criminogenic) factor of the Risk Need Responsivity model (Bonta & Andrews, 2017) and thus have an higher risk of recidivism they would require more intensive treatment.

Unfortunately, studies that have examined and compared the potential incremental utility of psychopathic traits measures in prospectively predicting future criminal behavior after controlling for previous criminal history are not abundant (e.g., Colins, Vermeiren, De Bolle, & Broekaert, 2012; Douglas et al., 2008). It is well-known that previous criminal activity is the best predictor of future criminal activity (see e.g., Cottle, Lee, & Heilbrun, 2001; Kennealy et al., 2010). Some authors argue that psychopathy measures should only be used if they add something above and beyond existing risk-assessment measures and variables (Edens, Campbell, & Weir, 2007) due to the serious impact of labeling youth as psychopathic or as having elevated psychopathic traits (Blais & Forth, 2013). For example, Colins et al.'s (2012) study with detained male adolescents found that neither general psychopathy nor the affective dimension of psychopathy measured by the YPI was predictive of recidivism after controlling for criminal history. However, the behavioral (i.e., impulsivity) and interpersonal (i.e., narcissism) dimensions of the YPI significantly predicted substance-related recidivism.

Another important research question is whether researchers should focus on the general psychopathy construct or on one particular dimension. Recently, researchers investigated the utility of the callous-unemotional dimension, arguing that this dimension can be considered the most important and promising dimension in terms of identifying a subgroup of serious and violent youth offenders with persistent patterns of offending and whom have unique etiological, emotional, and cognitive factors

associated with their offending (Frick & White, 2008; Frick, Ray, Thornton, & Kahn, 2014). The callous-unemotional dimension has gained relevance with the new Limited Prosocial Emotions Specifier of the Conduct Disorder diagnosis of the Diagnostic and Statistical Manual of Mental Disorders 5th edition (DSM-5; American Psychiatric Association, 2013). However, few empirical studies using youth forensic samples have corroborated the importance of the callous-unemotional dimension in terms of differentiating severe antisocial youth and predicting future offending behavior (Brandt, Kennedy, Patrick, & Curtin, 1997; Caputo et al., 1999). Thus, there is limited support for favoring the callous-unemotional dimension over other dimensions such as the impulsivity (or behavioral) dimension (e.g., Cauffman et al., 2009) and the antisocial dimension (e.g., Vitacco, Neumann, & Caldwell, 2010), with most studies using PCL family instruments. Because of this, new studies investigating the utility of the callous-unemotional dimension and comparing it to the utility of other dimensions of the psychopathy construct using different measures are needed, especially those using self-report measures.

Most juvenile recidivism studies reported in the literature were done in North America, with few studies done in Europe. Such studies are especially scarce in southern-European countries such as Spain, Greece, or Italy (Loeber & Farrington, 2012; Zara & Farrington, 2016). In Portugal, no prospective juvenile recidivism studies are reported to exist, and we are aware of only one retrospective recidivism study using male juvenile offenders. Pechorro, Braga, Ray, Gonçalves, and Andershed (in press) found a relation between retrospective criminal recidivism and the impulsivity dimension of the APSD-SR after controlling for age and socioeconomic status. Results also showed that recidivism was associated with alcohol use, but not with drug use or crime seriousness.

Present study

The question whether self-report measures of psychopathy have added value to predict the risk of reoffending among male juvenile offenders is highly relevant to professionals and researchers working in the judicial and forensic domain. This is the first study that prospectively examines the relationship between self-reported measures of psychopathic-like traits and future offending behavior among Portuguese youth. Because psychopathy seems to be influenced by culture and ethnicity (Edens et al., 2007; Sullivan & Kosson, 2006), it is valuable to examine whether self-report psychopathy measures can predict recidivism among culturally distinct samples. Considering the literature reviewed above, we investigated the following research questions: Can self-reported psychopathic-like traits significantly predict recidivism? Which self-report measure (APSD, YPI, and CATS) and which dimension (affective, behavioral, and interpersonal) of the psychopathy construct performs better in terms of predicting recidivism, after controlling for past criminal history?

Method

Participants

The sample was composed of 214 male youth (recidivists and non-recidivists; see the Recidivism outcomes below) recruited from seven nation-wide juvenile detention centers managed by the Portuguese Ministry of Justice. Custody in a juvenile detention center is the strictest measure the Portuguese courts can apply to youth offenders, with a maximum possible sentence of three years. In Portugal the youth justice scheme applies to 12 to 15 year olds; offenders are treated as adults beginning at age 16. The seven detention centers are considered low to medium security and exclusively admit detainees who were tried for crimes according to Portuguese youth justice law (*Lei tutelar-educativa*).

The participants' ages ranged from 12- to 19-years-old ($M = 16.4$, $SD = 1.3$). Most (94%) were from an urban background and were Portuguese nationals (84%). The majority were White (56%), followed by Black (19%), mixed race (18%), and other ethnic minorities (6%). Their socioeconomic status (SES) was mostly low (96%), and they had completed an average of less than seven years of education ($M = 6.27$ years, $SD = 1.44$). Approximately a quarter (28%) of the participants were taking prescription psychiatric medication. They got involved in crime at an early age ($M = 11.3$ years, $SD = 2.2$ years), had their first contact with the law on average before they were 13 years old ($M = 12.7$ years, $SD = 1.9$ years), were detained prior to the age of 16 ($M = 15.3$ years, $SD = 1.2$ years), and spent an average of 636.1 ($SD = 258.1$) days in detention until they were released and followed for the present study.

In terms of the seriousness of prior crimes, 78% were in the repeated serious delinquency category, 16% were in the serious delinquency category, and 6% were in the minor to moderate delinquency category (see General Delinquency Seriousness Classification below). Most of the participants (94%) used violence in committing the crimes (see the violent behaviors classification systems below).

With regard to the diversity of criminal history according to the classification system used in Portugal, the participants had committed an average of 3.2 ($SD = 4.6$, range = 0 – 30, 36% of total crimes) crimes against people, 4.8 ($SD = 5.5$, range = 0 – 43, 44% of total crimes) crimes against property, no crimes against cultural identity, .22 ($SD = .61$, range = 0 – 5, 8.26% of total crimes) crimes against living in society, .06 ($SD = .29$, range = 0 – 3, 2.36% of total crimes) crimes against the State, and .38 ($SD = 1.26$, range = 0 – 15, 9.67% of total crimes) avulse legislation crimes (see the crime classification system below for examples of these different crime categories).

Instruments

Sociodemographics. A questionnaire was constructed to describe the socio-demographic characteristics of the participants in a standardized way, including questions about participants' age, ethnic group, urban *versus* rural origin, years of schooling completed, socioeconomic status, nationality, taking of psychiatric medication, age of crime onset, first contact with the law, cannabis use, drug use, and alcohol abuse during the 12 months before detention (these last three coded as 5-point ordinal variables; e.g., “How often did you use cannabis in the twelve months before your detention?”). Socioeconomic status (SES) was measured by a combination of parental level of education and parental profession (Simões, 2000).

Psychopathy measures. The Antisocial Process Screening Device (APSD; Frick & Hare, 2001) self-report version (Caputo et al., 1999) is a multidimensional 20-item measure designed to assess psychopathic traits in adolescents. Each item is scored on a 3-point ordinal scale ranging from 0 = “Never” to 2 = “Often”. The APSD-SR items comprise three dimensions: Callous-Unemotional dimension, Impulsivity dimension, and Narcissism dimension. The total score, as well the score of each dimension, is obtained by adding the respective items after reverse-scoring the appropriate items. Higher scores indicate higher psychopathic traits. The Portuguese version of the APSD-SR was used (Pechorro, Hidalgo, Nunes, & Jiménez, 2016). Internal consistency in the current sample, estimated by Cronbach's alpha (α) was APSD total = .79, Callous-Unemotional dimension = .65, Impulsivity dimension = .61, and Narcissism dimension = .72.

The Youth Psychopathic Traits Inventory (YPI; Andershed et al. 2002) is a 50-item self-report measure designed to assess the core personality traits of the

psychopathic personality constellation in youth aged 12 years old and up. Each item is scored on an ordinal 4-point Likert scale ranging from 0 = “Does not apply at all” to 3 = “Applies very well”. The YPI has 10 subscales with 5 items each representing Cooke and Michie’s (2001) three-dimensional conceptualization of psychopathy, namely: the Callous-Unemotional dimension (or Affective), the Impulsive-Irresponsible dimension (or Behavioral), and the Grandiose-Manipulative dimension (or Interpersonal). The total score, as well as each dimension score, is obtained by adding the respective items after reverse-scoring the appropriate items. Higher scores reflect an increased presence of the characteristics associated, namely psychopathic traits. The Portuguese version of the YPI was used (Pechorro, Andershed, Ray, Maroco, & Gonçalves, 2015). Internal consistency in the current sample, estimated by Cronbach’s alpha (α) was YPI total = .87, Affective dimension = .70, Behavioral dimension = .77, and Interpersonal dimension = .85.

The Childhood and Adolescent Taxon Scale (CATS; Harris, Rice, & Quinsey, 1994; Quinsey, Harris, Rice, & Cormier, 2006) is an actuarial rating scale developed from eight childhood and adolescent variables, most having to do with antisocial or aggressive behavior (e.g., “Childhood aggression problem”, “Arrested below the age of 16”). It has eight dichotomous items scored either 0 (No) or 1 (Yes). Higher scores mean a greater likelihood of life course persistent antisocial behavior associated with psychopathy. Relevant information to score CATS items can be obtained through self-report (CATS-SR) or clinical rating (e.g., using clinical reviews, institutional files). A potential advantage of the CATS is that it can be objectively verified if necessary, which can be a very useful in forensic assessments where a respondent might be less willing to admit to socially undesirable characteristics (Bolton, 2006). The Portuguese version of the CATS-SR was used (Pechorro, 2011).

Antisocial and criminal history variables. A Conduct Disorder (CD) scale was also created using the 15 dichotomous criteria that assess CD (see e.g., Skilling et al., 2001). The criteria (0 = *No*, 1 = *Yes*) were added to obtain a total continuous scale score, with higher scores indicating a higher number of CD symptoms. Internal consistency in the current sample was $\alpha = .77$.

A version of the General Delinquency Seriousness Classification (GDSC; Loeber, Farrington, Stouthamer-Loeber, & van Kammen, 1998) was used to classify official crime reports: Level 0 consisted of no delinquency; Level 1 consisted of minor to moderate delinquency, including shoplifting, minor vandalism, stealing, minor drug dealing, minor fraud, pickpocketing, carrying weapons; Level 2 consisted of serious delinquency, including assault, gang fighting, murder, rape, robbery, major drug dealing, carjacking, arson; Level 3 consisted of repeated serious delinquency, including two or more serious level 2 offences.

Violent behaviors were dichotomously classified (0 = *absent*, 1 = *present*). The following examples of violent behaviors were considered: gang fighting, strong-arming someone, armed robbery, assault to hurt or kill (Loeber et al., 1998; Loeber, & Farrington, 1998). The act of carrying a weapon (e.g., pocket knife) was not considered a violent behavior *per se* in the present classification because participants may carry it for protection, not for using it in proactively committing crimes.

The diversity of crimes was classified according to the six main categories specified by Portuguese legislation and used by the Portuguese Ministry of Justice and the police, namely: 1) crimes against people (e.g., assault, homicide), 2) crimes against property (e.g., stealing, shoplifting; it also includes robbery), 3) crimes against cultural identity (e.g., religious discrimination, racism), 4) crimes against living in society (e.g., inflicting harm to animals, forcing children to beg for money), 5) crimes against the

State (e.g., corruption, money laundering), and 6) avulse crimes (e.g., driving without a license, growing cannabis). The diversity of crimes variable can also be used as an ordinal variable in which individuals either had each category (=1) or did not (=0) and the values are then summed to compute a variety index (ordinal frequency of crime categories). Frequency of crimes was defined as the number of crimes committed, specified in the previously mentioned categories. Crime onset refers to the age in which the participants started to engage in crimes.

Recidivism outcomes. Official criminal data was supplied by the General Directorate of Rehabilitation and Prison Services (DGRSP) of the Portuguese Ministry of Justice. Participants with at least one new crime charge that lead to a new intervention by the DGRSP after they were assessed by us and released from the detention center were considered recidivists, whereas those who had no new charge during the one and three-year follow-up periods were considered non-recidivists for those follow-up periods, respectively. Analyses reported below are for general and violent recidivism after one year and after three years. Violent recidivism was coded according to the violent behaviors classification described above. A one-year follow-up was included because most studies tend to report one year recidivism rates, while a three-year follow-up was also used because it is usually considered the minimum number of years acceptable in examining a longitudinal tendency (Virginia Department of Juvenile Justice, 2005).

Procedure

Authorization to assess youths was previously obtained from the ethics committee of the DGRSP. Male detainees from the Portuguese Juvenile Detention Centers were asked to voluntarily participate after being informed about the aim of the

study. Informed consent was used. Only those who were detained for at least two months were approached due to the fact that youths can be temporarily committed for assessment purposes, with no subsequent charges. The participation rate was approximately 92%. Of the initial sample, 30 participants were later excluded, primarily because no official recidivism data was available (i.e., missing data), they could not be followed for the entire three-year period (e.g., due to the length of their incarceration), or they were incarcerated in adult prisons (e.g., due to more recent changes). Information was obtained from multiple sources including official institutional files and self-reports (e.g., age of criminal activity onset). The youth were told that the data they provided were confidential, for research purposes only, and would not affect their treatment in any way. The questionnaires were administered individually. Only males were included in the present study due to the small number of incarcerated female youths in Portugal, and to limit the potential confounding effect of gender differences on associations with correlates. The participants were assessed in 2013 and 2014. Official recidivism data was supplied by the DGRSP taking into consideration the time interval (i.e., one year, two years, and three years) after each participant's release from the detention centers (i.e., the follow-up upon release for each individual). Due to potential administrative delays in the processing of the recidivism data at a national level, an extra six months were used to guard against these delays.

Analytic plan

The data were analyzed using SPSS v25 (IBM SPSS, 2017). Areas under the curve (AUCs) were used to assess and compare the validity of psychopathy measures with recidivism outcomes. Binary logistic regression was used to test unique associations between the predictor variables and the dependent variable (recidivism status). The first block of each binary logistic regression model was used to control for

retrospective crime frequency obtained from official records; the second block included the self-reported psychopathic traits measures. Four logistic regression models were used to predict four outcomes: general and violent recidivism after one year and after three years. ANOVAs, exact Wilcoxon, McNemar, Mann-Whitney and chi-square tests were used to compare groups according characteristics of the variables (scale, ordinal or nominal), and the characteristics of the subsamples (paired or independent). The standard level for statistical significance used was .05. Pearson correlations were used to analyze associations between scale variables (Leech, Barrett, & Morgan, 2015).

Results

The analysis of the sociodemographic variables revealed no significant differences between non-recidivists ($n = 116$; 54.2%) and recidivists ($n = 98$; 45.8%) in terms of age, ethnic group, urban *versus* rural origin, years of schooling completed, socioeconomic status, nationality or taking of psychiatric medication. However, the recidivists reported having higher rates of alcohol use and cannabis use. In terms of the criminal variables, significant differences were found with regard to age of crime onset, age of first problem with the law, and age of first entry into a juvenile detention center, retrospective frequency of crimes, and conduct disorder symptoms, with recidivists starting their criminal activity, having their first problem with the law, and being detained at an earlier age; they also present a higher frequency of crimes and conduct disorder symptoms. However, no differences were found in terms of average days in detention, crime seriousness and violent behaviors or cocaine/heroin use (see Table 1).

[Insert Table 1]

Table 2 displays the correlations between the main variables used in the present investigation, including the self-report psychopathy measures and criminal history

variables. For the most part, the intercorrelations among the criminal variables were in the expected directions; however, age of crime onset was unrelated to frequency, serious, and diversity. Unsurprisingly, the intercorrelations among the subscales of the YPI and APSD were significant and positive. Additionally, the correlations between the YPI and APSD and their respective subscales were also in the expected directions with the conceptually overlapping subscales tending to show the strongest correlations. Finally, the only measure of psychopathy that was unrelated to the CATS-SR was the callous-unemotional dimensions of the APSD.

[Insert Table 2]

Table 3 shows the AUCs pertaining to general recidivism and violent recidivism. In the total sample general recidivism values were 37.9% for the first year, 18.2% for the second year, and 7.5% for the third year. Violent recidivism values were 20.3% for the first year, 8.4% for the second year, and 2% for the third year. It is important to mention that these recidivism rates are not cumulative (i.e., recidivism rates were calculated year by year). In terms of benchmarks, AUC values $\geq .56$ are considered small effect sizes, AUC values $\geq .64$ are considered medium effect sizes, and AUC values $\geq .71$ are considered large effect sizes (Rice & Harris, 2005). Our results show that none of the measures reached large effects sizes, but the APSD-SR total reached a medium effect size when considering the three-year general recidivism.

[Insert Table 3]

Table 4 presents four hierarchical binary logistic regression models predicting the four recidivism outcomes (i.e., 1-year general recidivism, 3-year general recidivism, 1-year violent recidivism, and 3-year violent recidivism) controlling for past frequency of crimes and age of first incarceration in the first step, and then entering the APSD-SR,

YPI and CATS-SR as covariates in the second step. We did not conduct the corresponding analyses for second year recidivism because the majority of new offenses occurred during the first year after release and the three-year perspective is more interesting in terms of interpreting a trend (see the recidivism outcomes subsection above). We did not enter sociodemographic characteristics first in this analysis because there were no significant differences in our univariate analysis. The only measure to reach a statistically significant result was the CATS-SR when considering one-year general recidivism.

[Insert Table 4]

Table 5 displays four hierarchical binary logistic regression models predicting the four recidivism outcomes (i.e., 1-year general recidivism, 3-year general recidivism, 1-year violent recidivism, and 3-year violent recidivism) controlling for past frequency of crimes and age of first incarceration in the first step, and then entering the APSD-SR Callous-Unemotional dimension, the APSD-SR Impulsivity dimension, and the APSD-SR Narcissism dimension in the second step. None of the dimensions of the APSD-SR were statistically significant.

[Insert Table 5]

Table 6 presents four hierarchical binary logistic regression models predicting the four recidivism outcomes (i.e., 1-year general recidivism, 3-year general recidivism, 1-year violent recidivism, and 3-year violent recidivism) controlling for past frequency of crimes and age of first incarceration in the first step, and then entering the YPI Affective (or Callous-Unemotional) dimension, the Behavioral (or Impulsive-Irresponsible), and the Interpersonal (or Grandiose-Manipulative) dimension in the second step. The Behavioral dimension was statistically significant when considering

three-year and one-year general recidivism, while the Interpersonal dimension was significant when considering three-year violent recidivism.

[Insert Table 6]

We also compared criminal recidivism proportion per year using McNemar tests. In the total sample general recidivism dropped from the first year to the second year ($p < .001$), from the second year to the third year ($p < .001$), and significant results were also obtained when comparing the first year with the third year ($p < .001$). Violent recidivism dropped from the first year to the second year ($p < .001$), from the second year to the third year ($p < .001$), and significant results were also obtained when comparing the first year with the third year ($p = .001$). Finally, we also compared prior and subsequent (i.e., previous and post-release) crime seriousness and violent criminal behaviors among the recidivists to determine if any changes occurred. Significant differences were found indicating lower crime seriousness (Wilcoxon $Z = -11.607$, $p < .001$) and violent criminal behaviors (McNemar $\chi^2 = 135.329$, $p < .001$) in new offenses after the release from the juvenile detention centers.

Discussion

Addressing our first research question, the ROC analyses revealed that all three self-report measures significantly predicted general recidivism, with small to medium effect sizes. The different dimensions generally were predictive as well. The one-year and three-year violent recidivism results revealed that the APSD-SR total score and the APSD-SR callous-unemotional dimension obtained the best performance in terms of violent recidivism, followed by the YPI total score and the YPI interpersonal dimension. The CATS-SR was not a significant predictor of violent recidivism.

Addressing our second research question, not all of these self-report measures could significantly predict recidivism among delinquent Portuguese youth after taking age at first incarceration and criminal history into account in regression analyses. In the multivariate logistic regression analyses, none of the total scores was able to significantly predict three-year general recidivism, one-year violent recidivism, and three-year violent recidivism. The CATS-SR stands out when considering one-year general recidivism. Thus, the CATS-SR may be considered an interesting and useful tool using a short format when trying to assess one-year recidivism among incarcerated male youths. However, additional research using other samples is necessary to corroborate this finding.

In terms of the dimensions of the measures the results were mixed: as assessed by the YPI the behavioral dimension was more likely to significantly predict general recidivism in the first and third year, whereas the interpersonal dimension significantly predicted violent recidivism in the third year of follow-up. These results are in part consistent with previous studies (e.g., Colins et al., 2012; Vincent et al., 2008) that demonstrated that the behavioral/lifestyle dimension of psychopathy outperforms the affective and interpersonal dimensions in terms of associations to antisocial outcomes. In the validation of the revised Violence Risk Appraisal Guide, an actuarial measure to predict future violence, only the antisocial behavior facet of the PCL-R is used as one of the items (Rice, Harris, & Lang, 2013). However, in our study the interpersonal dimension of the YPI did show predictive capability in terms of violent outcomes despite the fact it does not contain explicit antisocial items (Walters, 2015).

As assessed by the APSD-SR none of the dimensions were able to predict recidivism. More specifically, our results do not support to the notion that the callous-unemotional dimension of the APSD-SR is especially relevant in identifying serious

youth offenders and in predicting recidivism (Frick & White, 2008). Other studies have also put in to question the utility of the callous-unemotional traits after controlling for criminal history (e.g., Lahey, 2014; Pechorro, Nunes, Jimenez, & Hidalgo, 2015). This may also prove to be true from a clinical point of view because the new Limited Prosocial Emotions specifier of the conduct disorder diagnosis (APA, 2013) was partly derived from the items of the callous-unemotional dimension of the APSD.

Our study has some strengths and limitation that must be mentioned. Strengths include the prospective design with a three-year follow-up, the use of the retrospective frequency of crimes variable as a moderator in the regression models, the simultaneous use of three self-report measures of psychopathy for comparison purposes, and the official crime data provided by the Portuguese Ministry of Justice. Also, this was the first study of its kind among Portuguese youth in detention, so this study helps to fill a gap in the literature by identifying cultural and ethnic factors associated with recidivism. Indeed, very few studies addressed the link between youth psychopathy and recidivism in southern-European countries (Zara & Farrington, 2016).

In terms of the limitations of our study, we must mention the absence of females in our sample that did not allow us to examine gender effects, the sample size that did not allow us to control for more variables that might influence the association between psychopathy and recidivism, the low internal consistency of some of the dimensions of the APSD-SR, the lack of a social desirability measure to control for impression management, and the lack of a self-report delinquency measure that could complement the official crime data. The absence of the self-report delinquency measure is particularly relevant because it is known that minor offences are usually underreported in official data and that serious offending is often underreported in self-report studies (Babinski, Hartsough, & Lambert, 2001; Hovee et al., 2008).

We must conclude that the total scores of the self-report psychopathy measures used were limited in terms of incrementally explaining criminal recidivism among our sample of detained male youths. This is consistent with some previous studies using youth and adult samples (e.g., Colins et al., 2012, 2017; Rock, Sellbom, Ben-Porath, & Salekin, 2013). Self-report measures may have some relevance if used with caution as preliminary screening devices (e.g., Silva, Genoves, & Latorre, 2012), but most measures don't seem to provide much additional variance explained after taking criminal history (e.g., crime frequency) into account. Given that criminal justice systems routinely have access to criminal history information, self-reported psychopathy may not provide as much value as clinician ratings in terms of predicting recidivism (Asscher et al., 2011; Lilienfeld & Fowler, 2006).

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Table 1. Comparisons of sociodemographic and criminal variables between overall non-recidivists and recidivists

	Non-recidivists (<i>n</i> =116)	Recidivists (<i>n</i> =98)	Test, <i>p</i> value
Age	16.50(1.28)	16.27(1.29)	$F = 1.741, p = .19$
SES	95.14	98.08	$U = 4443, p = .70$
White ethnicity	53.8%	59.4%	$\chi^2 = 6.55, p = .49$
Psychiatric meds	22.2%	34.4%	$\chi^2 = 3.889, p = .06$
Urban origin	94.9%	92.7%	$\chi^2 = .451, p = .57$
Nationality	85.5%	82.3%	$\chi^2 = 3.375, p = .54$
Education (years)	6.33(1.55)	6.20(1.30)	$F = .465, p = .50$
Alcohol use	2.28(1.34)	2.69(1.24)	$U = 4543.5, p = .01$
Cannabis use	2.28(1.65)	2.70(1.61)	$U = 4670, p = .02$
Cocaine/heroin use	.26(.77)	.45(1.01)	$U = 5206, p = .15$
Age of crime onset	11.52(2.24)	10.94(1.98)	$F = 3.956, p = .04$
Age 1 st law contact	12.97(1.98)	12.43(1.71)	$F = 4.403, p = .03$
Age 1 st detention	15.56(1.22)	15.05(1.23)	$F = 8.88, p = .003$
Crime frequency	6.18(4.21)	10.90(10.02)	$F = 21.3124, p < .001$
Days in detention	655.09(278.56)	612.88(229.96)	$F = 1.414, p = .24$
Crime seriousness	2.68(.60)	2.77(.52)	$U = 5263, p = .28$
Violent behaviors	92.3%	95.8%	$\chi^2 = 1.144, p = .39$
CD symptoms (out of 15)	6.57(3.34)	8.11(2.99)	$F = 12.325, p < .001$

Note: F = ANOVA statistic, U = Mann-Whitney statistic, χ^2 = Chi-square statistic, SES = Socioeconomic status, CD symptoms = Conduct Disorder symptoms

Table 2. *Pearson correlation matrix of the main variables (recidivism outcomes not included)*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Crime frequency	1													
2 Crime diversity	.42***	1												
3 Crime seriousness	.32***	.23**	1											
4 Age crime onset	-.03	-.04	-.02	1										
5 Age 1 st incarceration	-.19**	.06	-.09	.18**	1									
6 APSD- SR total	.08	.09	.08	-.20**	-.15*	1								
7 APSD CU	.11	.03	.08	-.10	-.17*	.61***	1							
8 APSD Impulsivity	.08	.04	.06	-.19**	-.12	.77***	.28***	1						
9 APSD Narcissism	.02	.10	.04	-.10	-.07	.82***	.19**	.53***	1					
10 YPI total	.10	.16*	-.01	-.22**	-.06	.63***	.28***	.45***	.56***	1				
11 YPI Affective	.11	.20**	.03	-.15*	-.04	.44***	.26***	.27***	.39***	.81***	1			
12 YPI Behavioral	.15*	.09	.05	-.24***	-.08	.51***	.26***	.49***	.35***	.75***	.45***	1		
13 YPI Interpersonal	.03	.14*	-.05	-.16*	-.03	.58***	.21**	.37***	.59***	.90***	.65***	.46***	1	
14 CATS-SR total	.08	.09	.02	-.27***	-.03	.23**	.06	.26***	.18**	.31***	.18**	.42***	.19**	1

Note. APSD-.SR = Antisocial Process Screening Device – Self-Report, YPI = Youth Psychopathic Traits Inventory, CATS-SR = Childhood and Adolescent Taxon Scale – Self-Report; CU = Callous-Unemotional

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

Table 3. *Predictive validities of psychopathy measures with recidivism outcomes*

AUCs	General recidivism (95% CI)	Violent recidivism (95% CI)
1-year recidivism		
APSD-SR total	.62** (.55, .70)	.61* (.52, .70)
YPI total	.59* (.51, .67)	.57 (.48, .68)
CATS-SR total	.60* (.52, .67)	.57 (.47, .66)
APSD-SR CU	.60* (.52, .68)	.60* (.51, .69)
APSD-SR Impulsivity	.61* (.53, .69)	.55 (.45, .64)
APSD-SR Narcissism	.55 (.47, .63)	.55 (.46, .64)
YPI Affective	.55 (.47, .63)	.55 (.45, .65)
YPI Behavioral	.63** (.55, .70)	.56 (.46, .66)
YPI Interpersonal	.55 (.47, .63)	.57 (.48, .67)
3-year recidivism		
APSD-SR total	.64** (.56, .71)	.61* (.53, .70)
YPI total	.62** (.54, .70)	.59* (.50, .68)
CATS-SR total	.58* (.50, .65)	.56 (.47, .65)
APSD-SR CU	.62** (.55, .70)	.59* (.50, .67)
APSD-SR Impulsivity	.61* (.54, .69)	.54 (.45, .62)
APSD-SR Narcissism	.56 (.49, .64)	.57 (.48, .65)
YPI Affective	.55 (.47, .63)	.54 (.44, .64)
YPI Behavioral	.63** (.55, .71)	.55 (.46, .64)
YPI Interpersonal	.59* (.51, .67)	.60* (.51, .69)

Note. APSD-SR = Antisocial Process Screening Device – Self-Report; APSD-SR CU = Callous-Unemotional dimension; YPI = Youth Psychopathic Traits Inventory; CATS = Childhood and Adolescent Taxon Scale – Self-Report; AUC = Area under the curve; 95% CI = 95% Confidence Interval

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

Table 4. Logistic regression coefficients of the APSD-SR, YPI and CATS-SR predicting recidivism

	<i>B</i> (SE)	Wald	<i>p</i> value	Exp(<i>B</i>)	95% CI Exp(<i>B</i>)
1-year general recidivism					
1 st step					
Crime frequency	.053(.022)	5.842	<i>p</i> =.016	1.055	1.010, 1.101
Age of first incarceration	-.333(.124)	7.277	<i>p</i> =.007	.717	.563, .913
Constant	4.144(1.907)	4.721	<i>p</i> =.030	63.041	
2 nd step					
Crime frequency	.049(.022)	5.074	<i>p</i> =.024	1.051	1.006, 1.097
Age of first incarceration	-.322(.127)	6.369	<i>p</i> =.012	.725	.565, .931
APSD-SR	.050(.039)	1.628	<i>p</i> =.202	1.051	.974, 1.135
YPI	.000(.010)	.001	<i>p</i> =.973	1.000	.980, 1.021
CATS-SR	.263(.128)	4.261	<i>p</i> =.039	1.301	1.013, 1.671
Constant	1.552(2.128)	.532	<i>p</i> =.466	4.720	
3-year general recidivism					
1 st step					
Crime frequency	.110(.028)	15.220	<i>p</i> <.001	1.117	1.056, 1.180
Age of first incarceration	-.284(.124)	5.218	<i>p</i> =.022	.753	.590, .961
Constant	3.306(1.922)	2.960	<i>p</i> =.085	27.283	
2 nd step					
Crime frequency	.104(.028)	13.835	<i>p</i> <.001	1.109	1.050, 1.172
Age of first incarceration	-.265(.128)	4.296	<i>p</i> =.038	.767	.597, .986
APSD-SR	.049(.039)	1.601	<i>p</i> =.206	1.050	.974, 1.133
YPI	.007(.010)	.461	<i>p</i> =.497	1.007	.987, 1.027
CATS-SR	.125(.120)	1.084	<i>p</i> =.298	1.133	.896, 1.433
Constant	1.031(2.132)	.234	<i>p</i> =.629	2.803	

1-year violent recidivism1st step

Crime frequency	.024(.021)	1.342	<i>p</i> =.247	1.025	.983, 1.068
Age of first incarceration	-.474(.152)	9.772	<i>p</i> =.002	.622	.462, .838
Constant	5.581(2.310)	5.836	<i>p</i> =.016	265.387	

2nd step

Crime frequency	.023(.021)	1.144	<i>p</i> =.285	1.023	.981, 1.067
Age of first incarceration	-.465(.155)	8.958	<i>p</i> =.003	.628	.463, .852
APSD-SR	.017(.048)	.134	<i>p</i> =.714	1.018	.927, 1.117
YPI	.004(.013)	.106	<i>p</i> =.745	1.004	.979, 1.030
CATS-SR	.212(.156)	1.834	<i>p</i> =.176	1.236	.910, 1.679
Constant	3.569(2.614)	1.863	<i>p</i> =.172	35.468	

3-year violent recidivism1st step

Crime frequency	.017(.020)	.675	<i>p</i> =.411	1.017	.977, 1.058
Age of first incarceration	-.339(.140)	5.890	<i>p</i> =.015	.713	.542, .937
Constant	3.808(2.149)	3.139	<i>p</i> =.076	45.053	

2nd step

Crime frequency	.014(.020)	.502	<i>p</i> =.479	1.015	.975, 1.056
Age of first incarceration	-.324(.143)	5.155	<i>p</i> =.023	.724	.547, .957
APSD-SR	.023(.045)	.256	<i>p</i> =.613	1.023	.937, 1.116
YPI	.006(.012)	.281	<i>p</i> =.596	1.006	.983, 1.030
CATS-SR	.148(.142)	1.082	<i>p</i> =.298	1.159	.878, 1.531
Constant	1.878(2.425)	.600	<i>p</i> =.439	6.543	

Note. APSD-SR = Antisocial Process Screening Device – Self-Report; YPI = Youth Psychopathic Traits Inventory; CATS-SR = Childhood and Adolescent Taxon Scale – Self-Report; Crime frequency = Retrospective number of official crimes

Table 5. Logistic regression coefficients of dimensions of the APSD-SR predicting recidivism

	<i>B</i> (SE)	Wald	<i>p</i> value	Exp(<i>B</i>)	95% CI Exp(<i>B</i>)
1-year general recidivism					
1 st step					
Crime frequency	.053(.022)	5.842	<i>p</i> =.016	1.055	1.010, 1.101
Age of first incarceration	-.333(.124)	7.277	<i>p</i> =.007	.717	.563, .913
Constant	4.144(1.907)	4.721	<i>p</i> =.030	63.041	
2 nd step					
Crime frequency	.051(.022)	5.059	<i>p</i> =.024	1.052	1.007, 1.099
Age of first incarceration	-.293(.128)	5.275	<i>p</i> =.022	.746	.581, .958
Callous-Unemotional	.133(.080)	2.774	<i>p</i> =.096	1.143	.977, 1.337
Impulsivity	.202(.112)	3.291	<i>p</i> =.070	1.224	.984, 1.524
Narcissism	-.056(.071)	.616	<i>p</i> =.433	.946	.823, 1.087
Constant	2.181(2.090)	1.089	<i>p</i> =.297	8.854	
3-year general recidivism					
1 st step					
Crime frequency	.110(.028)	15.220	<i>p</i> <.001	1.117	1.056, 1.180
Age of first incarceration	-.284(.124)	5.218	<i>p</i> =.022	.753	.590, .961
Constant	3.306(1.922)	2.960	<i>p</i> =.085	27.283	
2 nd step					
Crime frequency	.109(.029)	14.302	<i>p</i> <.001	1.115	1.054, 1.180
Age of first incarceration	-.241(.129)	3.523	<i>p</i> =.061	.786	.611, 1.011
Callous-Unemotional	.153(.081)	3.575	<i>p</i> =.059	1.165	.994, 1.365
Impulsivity	.182(.112)	2.635	<i>p</i> =.105	1.200	.963, 1.495
Narcissism	-.036(.071)	.255	<i>p</i> =.614	.965	.839, 1.109
Constant	1.215(2.105)	.333	<i>p</i> =.564	3.370	

1-year violent recidivism1st step

Crime frequency	.024(.021)	1.342	<i>p</i> =.247	1.025	.983, 1.068
Age of first incarceration	-.474(.152)	9.772	<i>p</i> =.002	.622	.462, .838
Constant	5.581(2.310)	5.836	<i>p</i> =.016	265.387	

2nd step

Crime frequency	.024(.022)	1.191	<i>p</i> =.275	1.024	.981, 1.068
Age of first incarceration	-.445(.155)	8.280	<i>p</i> =.004	.641	.473, .868
Callous-Unemotional	.079(.096)	.676	<i>p</i> =.411	1.083	.896, 1.308
Impulsivity	.028(.135)	.043	<i>p</i> =.836	1.029	.789, 1.341
Narcissism	.020(.086)	.056	<i>p</i> =.813	1.020	.862, 1.208
Constant	4.509(2.537)	3.159	<i>p</i> =.075	90.822	

3-year violent recidivism1st step

Crime frequency	.017(.020)	.675	<i>p</i> =.411	1.017	.977, 1.058
Age of first incarceration	-.339(.140)	5.890	<i>p</i> =.015	.713	.542, .937
Constant	3.808(2.149)	3.139	<i>p</i> =.076	45.053	

2nd step

Crime frequency	.016(.020)	.608	<i>p</i> =.435	1.016	.976, 1.058
Age of first incarceration	-.309(.142)	4.740	<i>p</i> =.029	.734	.555, .970
Callous-Unemotional	.071(.091)	.615	<i>p</i> =.455	1.074	.899, 1.284
Impulsivity	-.003(.128)	.001	<i>p</i> =.980	.997	.776, 1.281
Narcissism	.058(.080)	.528	<i>p</i> =.467	1.060	.906, 1.240
Constant	2.756(2.361)	1.362	<i>p</i> =.243	15.734	

Note. APSD-SR = Antisocial Process Screening Device – Self-Report; Crime frequency = Retrospective number of official crimes

Table 6. Logistic regression coefficients of dimensions of the YPI predicting recidivism

	B(SE)	Wald	<i>p</i> value	Exp(B)	95% CI Exp(B)
1-year general recidivism					
1 st step					
Crime frequency	.053(.022)	5.842	<i>p</i> =.016	1.055	1.010, 1.101
Age of first incarceration	-.333(.124)	7.277	<i>p</i> =.007	.717	.563, .913
Constant	4.144(1.907)	4.721	<i>p</i> =.030	63.041	
2 nd step					
Crime frequency	.048(.022)	4.547	<i>p</i> =.033	1.049	1.004, 1.096
Age of first incarceration	-.327(.125)	6.831	<i>p</i> =.009	.721	.564, .921
Affective	.003(.034)	.010	<i>p</i> =.921	1.003	.939, 1.072
Behavioral	.051(.025)	4.196	<i>p</i> =.041	1.053	1.002, 1.106
Interpersonal	-.002(.019)	.007	<i>p</i> =.931	.998	.962, 1.036
Constant	2.610(2.039)	1.639	<i>p</i> =.200	13.594	
3-year general recidivism					
1 st step					
Crime frequency	.110(.028)	15.220	<i>p</i> <.001	1.117	1.056, 1.180
Age of first incarceration	-.284(.124)	5.218	<i>p</i> =.022	.753	.590, .961
Constant	3.306(1.922)	2.960	<i>p</i> =.085	27.283	
2 nd step					
Crime frequency	.108(.029)	14.133	<i>p</i> <.001	1.115	1.053, 1.179
Age of first incarceration	-.266(.126)	4.451	<i>p</i> =.035	.766	.598, .981
Affective	-.038(.035)	1.166	<i>p</i> =.280	.963	.900, 1.031
Behavioral	.055(.026)	4.560	<i>p</i> =.033	1.057	1.005, 1.111
Interpersonal	.025(.019)	1.647	<i>p</i> =.199	1.025	.987, 1.064
Constant	1.714(2.086)	.675	<i>p</i> =.411	5.552	

1-year violent recidivism					
1 st step					
Crime frequency	.024(.021)	1.342	<i>p</i> =.247	1.025	.983, 1.068
Age of first incarceration	-.474(.152)	9.772	<i>p</i> =.002	.622	.462, .838
Constant	5.581(2.310)	5.836	<i>p</i> =.016	265.387	
2 nd step					
Crime frequency	.026(.022)	1.406	<i>p</i> =.236	1.026	.983, 1.071
Age of first incarceration	-.470(.152)	9.611	<i>p</i> =.002	.625	.464, .841
Affective	-.008(.041)	.042	<i>p</i> =.837	.992	.915, 1.075
Behavioral	-.003(.030)	.009	<i>p</i> =.926	.997	.940, 1.058
Interpersonal	.028(.023)	1.466	<i>p</i> =.226	1.028	.983, 1.076
Constant	5.115(2.455)	4.341	<i>p</i> =.037	166.493	
3-year violent recidivism					
1 st step					
Crime frequency	.017(.020)	.675	<i>p</i> =.411	1.017	.977, 1.058
Age of first incarceration	-.339(.140)	5.890	<i>p</i> =.015	.713	.542, .937
Constant	3.808(2.149)	3.139	<i>p</i> =.076	45.053	
2 nd step					
Crime frequency	.020(.021)	.886	<i>p</i> =.347	1.020	.979, 1.062
Age of first incarceration	-.336(.140)	5.780	<i>p</i> =.016	.714	.543, .940
Affective	-.034(.039)	.754	<i>p</i> =.385	.967	.896, 1.043
Behavioral	-.006(.029)	.046	<i>p</i> =.830	.994	.940, 1.051
Interpersonal	.046(.022)	4.217	<i>p</i> =.040	1.047	1.002, 1.093
Constant	3.557(2.311)	2.369	<i>p</i> =.124	35.043	

Note. YPI = Youth Psychopathic Traits Inventory; Crime frequency = Retrospective number of official crimes

2.2. Manuscrito II

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The utility of self-reported psychopathic traits in predicting recidivism among a
sample of incarcerated female youths

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Abstract

Only a few studies have prospectively examined the utility of self-reported measures of psychopathic traits in predicting offending behavior among forensic samples of female youth offenders. The main aim of this study is to compare the utility of two self-report measures of psychopathic-like traits in predicting criminal recidivism among a sample of incarcerated female youths. Participants ($N = 76$) from the three nation-wide Portuguese juvenile detention centers that admit female youths were followed over two years and prospectively classified as recidivists versus non-recidivists. Logistic regression models controlling for crime frequency and ethnicity revealed that neither the Antisocial Process Screening Device – Self-Report (APSD-SR) nor the Youth Psychopathic Traits Inventory (YPI) and their respective dimensions significantly predicted one- and two-year general recidivism and violent recidivism. Findings mostly suggest there are clear limitations in terms of the incremental utility of self-report measures of psychopathic traits in predicting criminal recidivism among incarcerated female juveniles.

Key words: crime; female juvenile delinquents; psychopathic traits; recidivism

Introduction

Psychopathy is usually described as a multidimensional construct that includes affective (e.g., callousness), behavioral (e.g., impulsivity), interpersonal (e.g., manipulation), and deviant lifestyle (e.g., delinquency, antisocial behavior) dimensions manifesting itself as a personality disorder (see e.g., Blair & Mitchell, 2009; Cooke & Michie, 2001; Hare, 2003; Skeem, Polaschek, Patrick, & Lilienfeld, 2011). Elevated psychopathy scores are usually correlated with higher rates of violent and non-violent delinquent and antisocial behaviors, such as early criminal onset, early contacts with the police, early juvenile court referrals, and aggression (e.g., Andershed, Kerr, Stattin & Levander, 2002; DeLisi & Piquero, 2011; Farrington, 2005; Forth & Book, 2010; Vaughn, Howard, & DeLisi, 2008).

Studies have suggested that psychopathic traits can be identified among children and adolescents and that they identify a subgroup of antisocial youth who are most at-risk for psychopathic traits in adulthood (e.g., Lynam et al., 2009; Shiner, 2009). Indeed, when the psychopathic traits are present, delinquent youths tend to follow more stable and chronic patterns of antisocial behavior (DeLisi, 2016; Forth & Burke, 1998; Lynam, 1996). Thus, the development of sound, accurate measures to assess psychopathic traits among youth is crucial for identifying those youth that pose the most serious threat to society throughout their life course and for research attempting to better understand the etiology of these traits in order to develop treatment and prevent efforts for such youth (Bayliss et al., 2010; Frick, 1998).

There are a variety of instruments designed to measure psychopathy among adolescents (see e.g., Ribeiro da Silva, Rijo, & Salekin, 2013, for a review). Broadly, these include clinical measures such as the Psychopathy Checklist: Youth Version (PCL:YV; Forth, Kosson, & Hare, 2003) and self-report assessments such as the

Antisocial Process Screening Device Self-Report (APSD-SR; Caputo, Frick, & Brodsky, 1999) and the Youth Psychopathic Traits Inventory (YPI; Andershed et al., 2002). The PCL:YV is administered via a semi-structured interview by trained personnel and has been found to predict antisocial outcomes including recidivism (Schmidt, Campbell, & Houlding, 2011). Although clinical assessments are useful in forensic settings, they do require considerably more resources to administer (e.g., trained interviewers, time, collateral file review). Thus, valid self-report assessments of psychopathy may prove to be feasible alternatives (e.g., less time-consuming, less costly) to clinical measures such as the PCL:YV, particularly in research settings where access to collateral files may be limited.

Both the APSD and the YPI were designed for research settings and have been shown to exhibit criterion and predictive validity in terms of their associations with antisocial behavior (e.g., delinquency, aggression, externalizing behavior, and recidivism; Douglas, Epstein, & Poythress, 2008; Poythress, Dembo, Wareham, & Greenbaum, 2006). However, the majority of studies that have assessed the validity of these self-report measures of psychopathy have largely been based on male samples. The predictive validity of the APSD and the YPI among females remains under-researched, despite the notion that females have unique risk and needs factors associated with their offending (Dowden & Andrews, 1999). The clinical and forensic utility of such measures among females, therefore, is in question and more research is needed to assess the utility of psychopathic traits in predicting recidivism among female offender samples.

Psychopathic Traits and Recidivism among Females

A fair number of studies exist that have assessed the predictive validity of psychopathy among justice-involved female adolescent samples using the PCL:YV.

Based on this body of research, the PCL:YV has shown moderate utility in predicting recidivism among this population (Eisenbarth, Osterheider, Nedopil, & Stadtland, 2012; Vitale & Newman, 2001). However, in several studies, the predictive validity of the PCL:YV was better for males than it was for females (Edens, Campbell, & Weir, 2007; Schmidt, Campbell, & Houlding, 2011; Schmidt, McKinnon, Cattha, & Brownlee, 2006; Vincent, Odgers, McCormick, & Corrado, 2008). Thus, the research on the PCL:YV suggests that while psychopathy does predict recidivism among females, it may perform differently (i.e., less predictive) among this particular group of juvenile offenders.

While there is a relatively extensive body of research examining the predictive utility of clinical assessments of psychopathic traits among justice-involved female samples, research on self-report measures has been somewhat limited. That is, only a few studies have examined the usefulness of self-report psychopathy measures among samples of females. For example, Shaffer et al. (2016) examined the predictive validity of the APSD among a community sample of males and females. They found that the APSD and its subscales predicted general and violent delinquency assessed six months later for the entire sample. In testing the moderating effect of sex, they showed that the effect for the impulsivity subscale on violent offending was stronger for males than females. However, sex did not moderate the effects for the other subscales nor did it moderate the effect of the impulsivity subscale and general offending. Colins, Noom, and Vanderplasschen (2012) found that the YPI total score and its subscales were associated with self-reported offending among a community sample of youth. Kahn, Byrd, and Pardini (2013) found that the ICU predicted official offending outcomes (3.5 years later) among a community sample of youth while controlling for other relevant risk factors (e.g., substance use, ADHD). Using the same sample, Neumann and Pardini

(2014) found that the YPI prospectively predicted official records of adult criminal offending. They also found that the Impulsive/Irresponsible scale positively predicted criminal behavior while the Callous/Unemotional scale was unrelated, and the Grandiose/Manipulative negatively predicted adult criminal outcomes. Finally, Colins, Andershed, Hawes, Bijttebier, and Pardini (2016) found that the Inventory of Callous-Unemotional (ICU; Kimonis et al., 2008) was weakly to moderately associated with a contemporaneous measure of self-reported delinquency among a sample of detained female adolescents. While these studies support the utility of self-reported psychopathic-like traits for predicting recidivism, it is important to point out that these studies either relied on community samples of youth or measures that only capture one aspect of psychopathy. Thus, it is important to determine if comprehensive self-report measures of psychopathy (i.e., affective, interpersonal, and behavioral factors) aid in predicting antisocial outcomes among justice-involved females.

There have been a few studies examining the predictive utility of youth self-report measures of psychopathy that capture the full range of the construct such as the APSD and the YPI among justice-involved females. The APSD is a self-report measure of youth psychopathy that consists of three factors: Callous-Unemotional, Narcissism, and Impulsivity (Frick & Hare, 2001). Using a retrospective design, Pechorro, Gonçalves, Maroco, Nunes, and Jesus (2014) found that the APSD was associated various aspects of offending including earlier age of onset and seriousness of offending among a detained sample of females. In a cross-sectional study, Colins, Bijttebier, Broekaert, and Andershed (2014), found that the YPI and the APSD, and their respective subscales, were associated with self-reported offending in the expected directions among a sample of detained female youth. However, using a prospective design, Colins, van Damme, Andershed, Fanti, and DeLisi (2017) found that neither the

total nor any of the subscale scores of the APSD predicted future (6 months) violent or non-violent offending after controlling for prior offending among a sample of detained female offenders.

The YPI also captures multiple aspects of psychopathic traits including the Callous-Unemotional, Grandiose-Manipulative, and Impulsive-Irresponsible subscales. However, only one study has examined the association between the YPI and offending among a female sample (Leenarts, Perez, Schmeck, Fegert, & Schmid, 2017). Specifically, Leenarts and colleagues examined the cross-sectional association between the YPI subscales and self-reported violent and non-violent delinquency among a community and juvenile justice-involved sample of males and females. They found that the YPI subscales (with the exception of callous-unemotional subscale predicting non-violent offense) were associated with both forms of delinquency and that gender did not moderate this association. They also did not find a three-way interaction effect between gender, sample (i.e., community vs. justice-involved), suggesting that the YPI is consistently related to delinquency across gender.

In sum, there are only a few studies examining the utility of self-reported psychopathy as measured by the APSD and YPI among forensic samples of female youths. Among the few studies that have done so, the findings are equivocal. It is important to point out that few of the aforementioned studies prospectively examined the predictive utility of the APSD or YPI using longitudinal assessments. It is also important to note that the majority of studies relied on cross-sectional associations. Thus, it is still not clear how well the YPI and APSD and their respective subscales predict official juvenile justice outcomes.

Very few juvenile recidivism studies have been done in southern European countries such as Italy or Spain (Zara & Farrington, 2016). In Portugal, no prospective

female recidivism studies are reported to exist, and we are aware of only one retrospective recidivism study using female juvenile offenders. Pechorro, Braga, Kahn, Gonçalves, and DeLisi (2018) found a relation between retrospective criminal recidivism and the Grandiose/Exhibitionism and the Entitlement/Exploitativeness dimensions of the Narcissistic Personality Inventory – 13 (NPI-13) after controlling for the frequency of crimes and age of first incarceration. However, the NPI-13 was not developed to assess the psychopathy construct per se.

Current study

In sum, assessing the utility of self-report measures of psychopathy in predicting risk for reoffending among female juvenile offenders has important implications for theory and practice but only a few studies examined this important topic of research. In a recent review, Dobduszek and Debowska (2016) called for additional research in several important areas regarding the measurement of psychopathy. Two specific areas included studies utilizing new datasets (as opposed to secondary data based on white, male samples) and the need for research to examine the differential predictive validity of the “unique” factors. In order to fill this gap in the literature and to address two important areas of research identified by Dobduszek and Debowska, we investigated the following research questions: 1) Can psychopathic traits measures (i.e., APSD and YPI) significantly predict recidivism among detained female youth offenders while controlling for other risk factors (e.g., prior offending)? 2) Does one of the dimensions (i.e., affective, behavioral, interpersonal) of psychopathic traits work best in terms of predicting recidivism after controlling for past criminal history?

Method

Participants

The sample was composed of 76 female youth (recidivists and non-recidivists; see below) recruited from three nation-wide juvenile detention centers that admit females managed by the Portuguese Ministry of Justice. Detention in a juvenile detention center is the strictest measure the Portuguese courts can apply to youth offenders. In Portugal the youth justice scheme applies to 12 to 15 year olds, offenders are treated as adults beginning age 16. The three detention centers are considered low to medium security and exclusively admit detainees who were tried for crimes according to Portuguese youth justice law (*Lei tutelar-educativa*).

The participants age ranged from 14- to 18-years-old ($M = 16.37$, $SD = 1.16$) and were primarily from an urban background (97.4%). The majority were white (57.9%), followed by black (21.1%), mixed race (10.5%), and other ethnic minorities (10.5%). Most were Portuguese nationals (86.8%). Their socioeconomic status (SES) was mostly low (97.1%), and they had completed on average of less than seven years of education ($M = 6.75$ years, $SD = 1.35$). Approximately one-third (38.2%) of the participants were taking prescription psychiatric medication. They got involved in crime at an early age ($M = 12.42$ years, $SD = 1.56$ years), had their first contact with the law on average when they were 13 years old ($M = 13.25$ years, $SD = 1.54$ years), were detained prior to the age of 16 ($M = 15.87$ years, $SD = 1.0$ years), and spent an average of 533.66 ($SD = 217.94$) days in detention until they were released and followed for the present study.

In terms of the seriousness of the crimes they previously committed, 60.5% were in the repeated serious delinquency category, 27.6% were in the serious delinquency category, and 11.8% were in the minor to moderate delinquency category (see General Delinquency Seriousness Classification below). Most of the participants (88.2%) used violence in committing the crimes (see the violent behaviors classification systems below).

With regard to the retrospective diversity of crimes according to the classification system used in Portugal, the participants had committed an average of 2.61 ($SD = 2.77$, range = 0 – 12, 41.35% of total crimes) crimes against people, 2.71 ($SD = 4.27$, range = 0 – 20, 40.61% of total crimes) crimes against property, no crimes against cultural identity, .05 ($SD = .23$, range = 0 – 1, 7.52% of total crimes) crimes against living in society, .03 ($SD = .16$, range = 0 – 1, 1.50% of total crimes) crimes against the State, and .18 ($SD = .45$, range = 0 – 2, 9.02% of total crimes) avulse legislation crimes (see the crime classification system below for examples of these different crime categories).

Instruments

The Antisocial Process Screening Device – Self-Report (APSD-SR; Caputo, Frick, & Brodsky, 1999) is a 20-item measure designed to assess psychopathic traits in adolescents. Each item is anchored on a 3-point ordinal scale (0 = *Never*, 1 = *Sometimes*, and 2 = *Often*). This measure can be used with pre-adolescents and adolescents, and possesses three main factors: the Callous-Unemotional (e.g., item 19. “You hide your feelings or emotions from others”), the Narcissism factor (e.g., item 8. “You brag a lot about your abilities, accomplishments, or possessions”), and the Impulsivity factor (e.g., item 4. “You act without thinking of the consequences”). Higher scores indicate an increased presence of psychopathic traits. Scores are calculated by reverse-scoring the reversible items and then summing the items to obtain the factors scores and the total score. The Portuguese version was used (Pechorro, Hidalgo, Nunes, & Jiménez, 2016). The internal consistency for the current study was APSD-SR total = .75; Callous-Unemotional = .52; Impulsivity = .66; and Narcissism = .73.

The Youth Psychopathic Traits Inventory (YPI; Andershed et al., 2002) is a 50-item self-report inventory designed to assess psychopathic traits in youths in line with Cooke and Michie's (2001) three-factor model of the psychopathy construct. Each item is scored on a 4-point ordinal scale (ranging from 0 = *Does not apply at all*, to 3 = *Applies very well*). The YPI is comprised of three factors, namely the Grandiose-Manipulative factor or Interpersonal (e.g., item 14. "I have the ability to con people by using my charm and smile"), the Callous-Unemotional factor or Affective (e.g., item 12. "I think that crying is a sign of weakness, even if no one sees you"), and the Impulsive-Irresponsible factor or Behavioral (e.g., item 9. "I consider myself as a pretty impulsive person"). The YPI can be scored by adding the answers to the items, after reverse-scoring the reversible items, with higher scores indicate an increased presence of psychopathic traits. The Portuguese version of this inventory was used (Pechorro et al., 2015). The internal consistency for the current study, estimated by Cronbach's alpha (α) was YPI total = .86; Grandiose-Manipulative = .84; Callous-Unemotional = .69; and the Impulsive-Irresponsible = .81.

A Conduct Disorder (CD) scale was also created using the 15 dichotomous criteria that assess CD (see e.g., Skilling et al., 2001). The criteria (0 = No, 1 = Yes) were added to obtain a total continuous scale score, with higher scores indicating a higher number of CD symptoms.

A questionnaire was constructed to describe the socio-demographic characteristics of the participants in a standardized way, including questions about participants' age, ethnic group, urban *versus* rural origin, years of schooling completed, socioeconomic status, nationality, taking of psychiatric medication, age of crime onset, first contact with the law, cannabis use, drug use, and alcohol abuse during the 12 months before detention (these last three coded as 5-point ordinal variables; e.g., "How

often did you use cannabis in the twelve months before your detention?”).

Socioeconomic status (SES) was measured by a combination of parental level of education and parental profession (Simões, 2000).

A version of the General Delinquency Seriousness Classification (GDSC; Loeber, Farrington, Stouthamer-Loeber, & van Kammen, 1998) was used to classify official crime reports: Level 0 consisted of no delinquency; Level 1 consisted of minor to moderate delinquency, including shoplifting, minor vandalism, stealing, minor drug dealing, minor fraud, pickpocketing, carrying weapons; Level 2 consisted of serious delinquency, including assault, gang fighting, murder, rape, robbery, major drug dealing, carjacking, arson; Level 3 consisted of repeated serious delinquency, including two or more serious level 2 offences.

Violent behaviors were dichotomously classified (coded 0 = absent, 1 = present). The following examples of violent behaviors were considered: gang fighting, strong-arming someone, armed robbery, assault to hurt or kill (Loeber et al., 1998; Loeber, & Farrington, 1998). The act of carrying a weapon (e.g., pocket knife) was not considered a violent behavior *per se* in the present classification because participants may carry it for protection, not for using it in proactively committing crimes.

The diversity of crimes was classified according to the six main categories specified by Portuguese legislation and used by the Portuguese Ministry of Justice and the police, namely: 1) crimes against people (e.g., assault, homicide), 2) crimes against property (e.g., stealing, shoplifting; it also includes robbery), 3) crimes against cultural identity (e.g., religious discrimination, racism), 4) crimes against living in society (e.g., inflicting harm to animals, forcing children to beg for money), 5) crimes against the State (e.g., corruption, money laundering), and 6) avulse crimes (e.g., driving without a

license, growing cannabis). The diversity of crimes variable can also be used as an ordinal variable (ordinal frequency of crime categories). Frequency of crimes was defined as the number of crimes committed, specified in the previously mentioned categories. Crime onset refers to the age in which the participants started to engage in crimes.

The official criminal data was supplied by the General Directorate of Rehabilitation and Prison Services (DGRSP) of the Portuguese Ministry of Justice. Participants with at least one new crime charge that lead to a new intervention by the DGRSP after they were assessed by the authors of the present study and released from the detention center were considered recidivists, whereas those who had no new charge during the two year follow-up were considered non-recidivists. Below are the analyses for general and violent recidivism after one year and after two years, the most common follow-up periods reported in the literature (Virginia Department of Juvenile Justice, 2005).

Procedures

Authorization to assess youths was obtained from the ethics committee of the Portuguese Ministry of Justice. Female youth detainees from the Portuguese Juvenile Detention Centers were asked to voluntarily participate. Only those who were detained for at least two months were approached due to the fact that youths can be temporarily committed for assessment purposes, with no subsequent charges. The participation rate was approximately 92%. Informed consent was used was obtained from all individual participants included in the study. Of the initially collected sample, some participants were subsequently excluded, primarily because no official recidivism data was available or could not be followed for a two-year period. Information was obtained from multiple

sources including official institutional files and self-reports (e.g., age of criminal activity onset). Only females were included in the present study to limit the potential confounding effect of gender differences on associations with correlates. The youth were told that the data they provided were confidential, for research purposes only, and would not affect their treatment in any way. The questionnaires were administered individually in an adequate setting. The participants were assessed in 2013, 2014 and 2015 and followed for a two-year period after their release. To control for potential administrative delays in the processing of the recidivism data at a national level, an extra six months were used to guard against these delays.

Analytic plan

The data were analyzed using SPSS v25 (IBM SPSS, 2017). Binary logistic regression was used to test unique associations between the predictor variables and the dependent variable (recidivism status). The first block of each binary logistic regression model was used to control for ethnicity and retrospective crime frequency obtained from official records; the second block included the self-reported psychopathic traits measures. Four logistic regression models were conducted to examine the predictive utility of psychopathic traits for four recidivism outcomes: general and violent recidivism after one year and after two years. The statistics provided for each model included: Omnibus Test of Model Coefficient (χ^2_{Omn}), Cox & Snell R square (R^2_{CS}), Nagelkerke R square (R^2_{N}), Hosmer-Lemeshow Goodness-of-Fit Test (χ^2_{HL}), and the correct classification percentage. ANOVAs, exact Wilcoxon, McNemar, Mann-Whitney and chi-square tests were used to compare groups according characteristics of the variables (scale, ordinal or nominal), and the characteristics of the subsamples (paired or independent). Effect sizes were also provided (Leech, Barrett, & Morgan, 2015). Pearson correlations (r) were used to analyze associations between scale variables with

correlations being considered low if below .20, moderate if between .20 and .50, and high if above .50 (Ferguson, 2009; Maroco, 2018).

Results

We began the statistical analysis by examining the sociodemographic variables. Results revealed only one statistically significant difference between overall non-recidivists ($n = 56, 73.7\%$) and recidivists ($n = 20, 26.3\%$), namely the ethnicity variable with the recidivist group having a lower proportion of white participants. In terms of the criminal variables, no statistically significant differences were found although the retrospective frequency of crimes almost reached a significant level (see Table 1).

[Insert Table 1]

Table 2 displays the correlations between the main variables used in the present investigation, including criminal variables, and the self-report psychopathy measures. Among the criminal variables a moderate correlation was obtained between the frequency of crimes and the seriousness of crimes variables. The APSD-SR total and the YPI total were strongly correlated. The subscales of the APSD-SR and the YPI were also correlated in the expected directions. However, the callous-unemotional subscale of the ASPD-SR had a stronger correlation with the behavioral (or Impulsive-Irresponsible) subscale of the YPI compared to the affective subscale.

[Insert Table 2]

The participants' general recidivism rates ($n = 20$ recidivated) were 18.4% for the first year, and 13.2% for the second year, while the more specific violent recidivism rates ($n = 7$ recidivated violently) were 7.9% for the first year, and 2.6% for the second year. We compared recidivism proportion per year within the total sample using exact

chi-square tests. The general recidivism drop from the first year to the second year almost reached statistical significance ($p = .059$), and the violent recidivism drop from the first year to the second year was statistically significant ($p = .005$). Next, we compared recidivists in terms of their prior (i.e., before detention) and then subsequent (i.e., after detention) crime seriousness and violent criminal behaviors using exact Wilcoxon and McNemar tests, respectively. Significant differences were found indicating lower crime seriousness ($p < .001$) and lower violent criminal behaviors ($p = .004$) in new offenses.

Table 3 presents four hierarchical binary logistic regression models predicting the four recidivism outcomes controlling for ethnicity and retrospective crime frequency in the first step, and then entering the APSD-SR in the second step: 1-year general recidivism [$\chi^2_{\text{Omni}} = 12.502$ (3), $p = .006$, $R^2_{\text{CS}} = .152$, $R^2_{\text{N}} = .246$, $\chi^2_{\text{HL}} = 9.075$ (7), $p = .247$, Classification = 86.8% correct], 2-year general recidivism [$\chi^2_{\text{Omni}} = 12.776$ (3), $p = .005$, $R^2_{\text{CS}} = .155$, $R^2_{\text{N}} = .226$, $\chi^2_{\text{HL}} = 3.818$ (7), $p = .800$, Classification = 77.6% correct], 1-year violent recidivism [$\chi^2_{\text{Omni}} = 20.761$ (3), $p < .001$, $R^2_{\text{CS}} = .239$, $R^2_{\text{N}} = .563$, $\chi^2_{\text{HL}} = 14.373$ (7), $p = .045$, Classification = 97.4% correct], and 2-year violent recidivism [$\chi^2_{\text{Omni}} = 23.648$ (3), $p < .001$, $R^2_{\text{CS}} = .267$, $R^2_{\text{N}} = .582$, $\chi^2_{\text{HL}} = 6.058$ (7), $p = .533$, Classification = 96.1% correct]. Only one measure of psychopathic traits (i.e., the APSD-SR) was included in these regression models to avoid the significant amount of shared variance.

[Insert Table 3]

Table 4 presents four hierarchical binary logistic regression models predicting the four recidivism outcomes controlling for ethnicity and retrospective crime frequency in the first step, and then entering the YPI total in the second step: 1-year general recidivism [$\chi^2_{\text{Omni}} = 11.803$ (3), $p = .008$, $R^2_{\text{CS}} = .144$, $R^2_{\text{N}} = .234$, $\chi^2_{\text{HL}} = 20.729$ (7), $p =$

.004, Classification = 86.8% correct], 2-year general recidivism [$\chi^2_{\text{Omni}} = 12.079$ (3), $p = .007$, $R^2_{\text{CS}} = .147$, $R^2_{\text{N}} = .215$, $\chi^2_{\text{HL}} = 8.761$ (7), $p = .270$, Classification = 81.6% correct], 1-year violent recidivism [$\chi^2_{\text{Omni}} = 21.448$ (3), $p < .001$, $R^2_{\text{CS}} = .246$, $R^2_{\text{N}} = .579$, $\chi^2_{\text{HL}} = 6.578$ (7), $p = .474$, Classification = 97.4% correct], and 2-year violent recidivism [$\chi^2_{\text{Omni}} = 23.852$ (3), $p < .001$, $R^2_{\text{CS}} = .269$, $R^2_{\text{N}} = .587$, $\chi^2_{\text{HL}} = 5.554$ (7), $p = .593$, Classification = 96.1% correct]. Only the YPI was included in these regression models to avoid the shared variance.

[Insert Table 4]

Table 5 presents four hierarchical binary logistic regression models predicting the four recidivism outcomes controlling for ethnicity and retrospective crime frequency in the first step, and then entering the three APSD-SR dimensions in the second step: 1-year general recidivism [$\chi^2_{\text{Omni}} = 13.376$ (5), $p = .02$, $R^2_{\text{CS}} = .161$, $R^2_{\text{N}} = .262$, $\chi^2_{\text{HL}} = 7.466$ (8), $p = .487$, Classification = 84.2% correct], 2-year general recidivism [$\chi^2_{\text{Omni}} = 15.077$ (5), $p = .01$, $R^2_{\text{CS}} = .18$, $R^2_{\text{N}} = .263$, $\chi^2_{\text{HL}} = 6.042$ (7), $p = .535$, Classification = 80.3% correct], 1-year violent recidivism [$\chi^2_{\text{Omni}} = 23.468$ (5), $p < .001$, $R^2_{\text{CS}} = .266$, $R^2_{\text{N}} = .626$, $\chi^2_{\text{HL}} = 9.121$ (7), $p = .244$, Classification = 97.4% correct], and 2-year violent recidivism [$\chi^2_{\text{Omni}} = 24.542$ (5), $p < .001$, $R^2_{\text{CS}} = .276$, $R^2_{\text{N}} = .601$, $\chi^2_{\text{HL}} = 5.462$ (7), $p = .604$, Classification = 96.1% correct].

[Insert Table 5]

Finally, Table 6 presents four hierarchical binary logistic regression models predicting the four recidivism outcomes controlling for ethnicity and retrospective crime frequency in the first step, and then entering the three YPI dimensions in the second step: 1-year general recidivism [$\chi^2_{\text{Omni}} = 13.663$ (5), $p = .018$, $R^2_{\text{CS}} = .165$, $R^2_{\text{N}} = .267$, $\chi^2_{\text{HL}} = 14.274$ (7), $p = .047$, Classification = 86.8% correct], 2-year general recidivism [$\chi^2_{\text{Omni}} =$

14.269 (5), $p = .014$, $R^2_{CS} = .171$, $R^2_N = .25$, $\chi^2_{HL} = 5.326$ (7), $p = .62$, Classification = 80.3% correct], 1-year violent recidivism [$\chi^2_{Omni} = 30.176$ (5), $p < .001$, $R^2_{CS} = .328$, $R^2_N = .772$, $\chi^2_{HL} = .298$ (7), $p = .99$, Classification = 96.1% correct], and 2-year violent recidivism [$\chi^2_{Omni} = 30.598$ (5), $p < .001$, $R^2_{CS} = .331$, $R^2_N = .722$, $\chi^2_{HL} = .281$ (7), $p = .99$, Classification = 94.7% correct].

[Insert Table 6]

Discussion

Our study prospectively examines the relationship between self-reported measures of psychopathic-like traits and future offending behavior among incarcerated Portuguese female juvenile offenders. We aimed to investigate two main research questions: can psychopathic traits measures (i.e., APSD, YPI) significantly predict recidivism among detained female youth offenders; and, does one of the dimensions (i.e., affective, behavioral, interpersonal) of psychopathic traits work best in terms of predicting recidivism after controlling for past criminal history?

We started out by examining the sociodemographic variables. Our findings revealed that the only statistically significant results were for the ethnicity variable, with the recidivist group having a smaller proportion of white female youth (i.e., a larger proportion of ethnic minorities). This finding is consistent with previous research demonstrating that ethnicity is a robust predictor of recidivism (Piquero, Jennings, Diamond, & Reingle, 2015). Regarding the criminality variables (e.g., younger age of delinquency onset, conduct disorder symptoms, crime seriousness, alcohol and cannabis use) we found that they were not significantly different when comparing recidivists and non-recidivists. However, the retrospective frequency of crimes almost reached a significant level. This was somewhat surprising considering previous research (e.g.,

Cottle, Lee, & Heilbrun, 2001) and suggests both groups were more homogeneous than expected and/or that the small size of our sample does not allow the detection of the differences between the groups (i.e., low statistical power).

Addressing our first research question, none of the self-report measures total scores could significantly predict recidivism among delinquent Portuguese female youth after taking crime frequency and ethnicity into account in regression analyses. In the multivariate logistic regression analyses, none of the total scores was able to significantly predict one- and two-year general recidivism, and one- and two-year violent recidivism. We must conclude our findings corroborate previous studies suggesting that the utility of these measures for risk assessment purposes among detained youths seems very limited (e.g., Colins et al., 2017).

Regarding our second research question, none of the dimensions of the psychopathy construct as assessed by the APSD-SR and the YPI were able to predict recidivism, although the Interpersonal dimension of the YPI almost reached statistical significance when considering one- and two-year violent recidivism. Overall, our results do not support the notion that one of the dimensions of psychopathic traits works best in terms of predicting recidivism after controlling for past criminal history. More specifically, the notion that the callous-unemotional dimension of the APSD-SR is especially relevant in identifying serious youth offenders and in predicting recidivism was not supported (Frick & White, 2008). Another relevant issue is the low internal consistency of the callous-unemotional dimension APSD-SR that constrains its predictive potential. For example, Poythress, Douglas, et al. (2006) found that the callous-unemotional dimension was consistently low across ten studies of justice-involved youths. The YPI also revealed a somewhat low value regarding its callous-unemotional dimension, but again this was not exclusive to our study (e.g., Chauhan et

al., 2012; Declercq, Markey, Vandist, & Verhaeghe, 2009). Other studies have also put in to question the utility of the callous-unemotional traits after controlling for criminal history (e.g., Lahey, 2014; Pechorro, Nunes, Jimenez, & Hidalgo, 2015). This may also prove to be true from a clinical point of view because the new Limited Prosocial Emotions specifier of the conduct disorder diagnosis (APA, 2013) was partly derived from the items of the callous-unemotional dimension of the APSD.

Strengths and limitations

Our study has some strengths and limitation that must be mentioned. Strengths include the prospective design with a two-year follow-up, the use of the retrospective frequency of crimes variable as a moderator in the regression models, the simultaneous use of two self-report measures of psychopathy for comparison purposes, and the official crime data provided by the Portuguese Ministry of Justice. Also, this was the first study of its kind among female Portuguese youth in detention, so this study helps to fill a gap in the literature by identifying cross-cultural and ethnic factors associated with recidivism and psychopathy (Sullivan & Kosson, 2006) and advancing research using new data (Boduszek & Debowska, 2016). Indeed, very few studies addressed the link between youth psychopathy and recidivism in southern-European countries (Zara & Farrington, 2016).

In terms of the limitations of our study, we must mention the sample size that did not allow us to control for more variables that might influence the association between psychopathy and recidivism, the low internal consistency of some of the dimensions of the APSD-SR particularly that constrains their predictive potential, the lack of a social desirability measure to control for impression management, and the lack of a self-report delinquency measure that could complement the official crime data. For

instance, the interpersonal dimension of the YPI was marginally significant in predicting violent recidivism. This may have reached statistical significance with a larger sample size. The absence of the self-report delinquency measure is particularly relevant because it is known that minor offences are usually underreported in official data and that serious offending is often underreported in self-report studies (Babinski, Hartsough, & Lambert, 2001; Hovee et al., 2008). Despite these limitations, we hope that our study may promote future research on psychopathic traits and criminal recidivism among justice-involved youths so the potential utility of these self-report measures for risk-assessment and legal decision making can be scientifically proved or disproved.

We must conclude that the APSD-SR and YPI measures used had little or no values in terms of incrementally explaining criminal recidivism among our sample of detained female youths. This is consistent with some previous studies using youth and adult samples (e.g., Colins et al., 2012, 2017; Rock, Sellbom, Ben-Porath, & Salekin, 2013). Self-report measures may have some relevance if used with caution as preliminary screening devices (e.g., Murrie & Cornell, 2002; Silva, Genoves, & Latorre, 2012), but they don't seem to provide much additional variance explained after taking criminal history into account (e.g., crime frequency). Given that criminal justice systems routinely have access to criminal history information but may not have information about psychopathy, self-reported psychopathy does not seem to provide as much value as clinician ratings in terms of predicting recidivism (Asscher et al., 2011; Lilienfeld & Fowler, 2006). Thus, spending additional resources to collect information on psychopathy in forensic settings may not prove useful for predicting recidivism. It is important to mention that the interpersonal dimension of the YPI was marginally significant in predicting violent recidivism. From a practical standpoint, the

interpersonal dimension of the YPI may be useful for assessing risk for violent reoffending among female juvenile offenders. Nonetheless, we recommend that future research further examine these associations using data collected from larger samples of female offenders and alternative measures of psychopathy. Additionally, it may also prove useful to examine other outcomes (e.g., institutional adjustment, self-reported offending, treatment adherence) rather than relying on official records of recidivism.

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Table 1. Comparisons of sociodemographic and criminal variables between overall non-recidivist and recidivist female youths

	Non-recidivists (n=56)	Recidivists (n=20)	Test, <i>p</i> value	Effect size
Age	16.37(1.20)	16.36(1.09)	$F = .001, p = .98$	$\eta_p^2 = .000$
SES	34.58	37.50	$U = 484, p = .55$	$r = .07$
White ethnicity	66.7%	36.4%	$\chi^2 = 5.888, p = .03$	$\Phi = .338$
Psychiatric meds	61.1%	63.6%	$\chi^2 = .042, p = .99$	$\Phi = .023$
Urban origin	96.3%	100%	$\chi^2 = .837, p = .58$	$\Phi = .098$
Nationality	88.9%	81.8%	$\chi^2 = 5.060, p = .12$	$\Phi = .275$
Education (years)	6.91(1.30)	6.62(1.48)	$F = .428, p = .52$	$\eta_p^2 = .004$
Age of crime onset	12.49(1.58)	12.15(1.54)	$F = .014, p = .91$	$\eta_p^2 = .000$
Age 1 st law contact	13.17(1.50)	13.05(1.60)	$F = .554, p = .46$	$\eta_p^2 = .004$
Age 1 st detention	16.01(1.05)	15.81(.87)	$F = .535, p = .47$	$\eta_p^2 = .006$
Crime frequency	4.39(3.31)	6.05(4.14)	$F = 3.219, p = .07$	$\eta_p^2 = .042$
Days in detention	523.44(194.71)	558.73(270.25)	$F = .406, p = .53$	$\eta_p^2 = .015$
Crime seriousness	33.20	40.75	$U = 465, p = .22$	$r = .148$
Violent behaviors	80.7%	91.8%	$\chi^2 = 1.192, p = .43$	$\Phi = .15$
Alcohol use	30.13	31.45	$U = 375, p = .69$	$r = .053$
Cannabis use	30.05	30.40	$U = 398, p = .98$	$r = .004$
Cocaine/heroin use	28.53	31.45	$U = 259, p = .48$	$r = .093$
CD symptoms	6.50(2.68)	7.55(3.44)	$F = 2.062, p = .15$	$\eta_p^2 = .024$

Note: F = ANOVA statistic, U = Mann-Whitney statistic, χ^2 = Chi-square statistic, CD symptoms = Conduct Disorder symptoms

η_p^2 = partial eta squared; Φ = phi

Table 2. *Pearson correlation matrix of the main variables (recidivism outcomes not included)*

	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Crime frequency	1												
2 Crime diversity	.34***	1											
3 Crime seriousness	.40***	.38***	1										
4 Age crime onset	-.12	.09	.10	1									
5 Age 1 st incarceration	-.10	.03	-.13	-.11	1								
6 APSD- SR total	.25*	.29*	.33**	-.32**	-.11	1							
7 Callous-unemotional	.28*	.21	.22	-.07	.04	.55***	1						
8 Impulsivity	.36**	.19	.21	-.25*	-.10	.71***	.12	1					
9 Narcissism	.24*	.21	.23*	-.28*	-.09	.79***	.18	.34**	1				
10 YPI total	.14	.18	.26*	-.51***	-.11	.76***	.31*	.59***	.66***	1			
11 Affective	.02	.23*	.25*	-.31*	-.03	.48***	.23*	.28*	.48***	.73***	1		
12 Behavioral	.13	.14	.16	-.43***	-.10	.74***	.37**	.63***	.55***	.79***	.32**	1	
13 Interpersonal	.19	.12	.24*	-.50***	-.11	.68***	.21	.52***	.63***	.94***	.60***	.65***	1

Note. APSD-.SR = Antisocial Process Screening Device – Self-Report, YPI = Youth Psychopathic Traits Inventory

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

Table 3. Logistic regression coefficients of the APSD-SR total predicting recidivism

	<i>B</i> (SE)	Wald	<i>p</i> value	Exp(<i>B</i>)	95% CI Exp(<i>B</i>)
1-year general recidivism					
1 st step					
Ethnicity	-1.683(.699)	5.796	.016	.186	.047, .731
Crime frequency	.187(.083)	5.045	.025	1.206	1.024, 1.419
Constant	-1.748(.590)	8.791	.003	.174	
2 nd step					
Ethnicity	-1.709(.713)	5.755	.016	.181	.045, .731
Crime frequency	.238(.100)	5.695	.017	1.269	1.044, 1.544
APSD-SR	-.107(.097)	1.225	.268	.899	.744, 1.086
Constant	-.521(1.221)	.182	.669	.594	
2-year general recidivism					
1 st step					
Ethnicity	-1.681(.590)	8.119	.004	.186	.059, .592
Crime frequency	.139(.076)	3.317	.069	1.149	.989, 1.335
Constant	-.936(.521)	3.230	.072	.392	
2 nd step					
Ethnicity	-1.683(.595)	8.005	.005	.186	.058, .596
Crime frequency	.170(.087)	3.851	.050	1.185	1.000, 1.404
APSD-SR	-.068(.080)	.714	.398	.935	.799, 1.093
Constant	-.142(1.064)	.018	.894	.868	

1-year violent recidivism					
1 st step					
Ethnicity	-21.63(4925.41)	.000	.996	.000	.000,
Crime frequency	.470(.204)	5.286	.021	1.600	1.072, 2.388
Constant	-4.208(1.402)	9.006	.003	.015	
2 nd step					
Ethnicity	-21.56(4923.46)	.000	.997	.000	.000,
Crime frequency	.574(.258)	4.944	.026	1.775	1.070, 2.944
APSD-SR	-.194(.215)	.812	.368	.824	.541, 1.255
Constant	-2.056(2.560)	.645	.422	.128	
2-year violent recidivism					
1 st step					
Ethnicity	-22.22(4838.42)	.000	.996	.000	.000,
Crime frequency	.504(.208)	5.887	.015	1.655	1.102, 2.487
Constant	-4.134(1.366)	9.163	.002	.016	
2 nd step					
Ethnicity	-22.23(4820.16)	.000	.996	.000	.000,
Crime frequency	.586(.255)	5.291	.021	1.796	1.091, 2.959
APSD-SR	-.142(.197)	.518	.472	.868	.590, 1.277
Constant	-2.562(2.433)	1.109	.292	.077	

Note. APSD-SR = Antisocial Process Screening Device – Self-Report; Crime frequency = Retrospective number of official crimes

Table 4. *Logistic regression coefficients of the YPI total predicting recidivism*

	<i>B</i> (SE)	Wald	<i>p</i> value	Exp(<i>B</i>)	95% CI Exp(<i>B</i>)
1-year general recidivism					
1 st step					
Ethnicity	-1.683(.699)	5.796	.016	.186	.047, .731
Crime frequency	.187(.083)	5.045	.025	1.206	1.024, 1.419
Constant	-1.748(.590)	8.791	.003	.174	
2 nd step					
Ethnicity	-1.660(.696)	5.692	.017	.190	.049, .744
Crime frequency	.161(.089)	3.263	.071	1.174	.986, 1.398
YPI	.015(.020)	.558	.455	1.015	.977, 1.054
Constant	-2.655(1.382)	3.692	.055	.070	
2-year general recidivism					
1 st step					
Ethnicity	-1.681(.590)	8.119	.004	.186	.059, .592
Crime frequency	.139(.076)	3.317	.069	1.149	.989, 1.335
Constant	-.936(.521)	3.230	.072	.392	
2 nd step					
Ethnicity	-1.687(.592)	8.125	.004	.185	.058, .590
Crime frequency	.145(.082)	3.138	.076	1.156	.985, 1.356
YPI	-.003(.015)	.037	.848	.997	.968, 1.027
Constant	-.759(1.057)	.516	.472	.468	

1-year violent recidivism					
1 st step					
Ethnicity	-21.63(4925.41)	.000	.996	.000	.000,
Crime frequency	.470(.204)	5.286	.021	1.600	1.072, 2.388
Constant	-4.208(1.402)	9.006	.003	.015	
2 nd step					
Ethnicity	-20.61(5177.25)	.000	.997	.000	.000,
Crime frequency	.290(.221)	1.727	.189	1.337	.867, 2.061
YPI	.063(.057)	1.254	.263	1.065	.954, 1.190
Constant	-7.973(3.919)	4.139	.042	.000	
2-year violent recidivism					
1 st step					
Ethnicity	-22.21(4838.42)	.000	.996	.000	.000,
Crime frequency	.504(.208)	5.887	.015	1.655	1.102, 2.487
Constant	-4.134(1.366)	9.163	.002	.016	
2 nd step					
Ethnicity	-21.37(5042.92)	.000	.997	.000	.000
Crime frequency	.377(.235)	2.566	.109	1.458	.919, 2.314
YPI	.039(.049)	.643	.423	1.040	.945, 1.146
Constant	-6.353(3.292)	3.725	.054	.002	

Note. YPI = Youth Psychopathic Traits Inventory; Crime frequency = Retrospective number of official crimes

Table 5. Logistic regression coefficients of dimensions of the APSD-SR predicting recidivism

	<i>B</i> (SE)	Wald	<i>p</i> value	Exp(B)	95% CI Exp(B)
1-year general recidivism					
1 st step					
Ethnicity	-1.683(.699)	5.796	.016	.186	.047, .731
Crime frequency	.187(.083)	5.045	.025	1.206	1.024, 1.419
Constant	-1.748(.590)	8.791	.003	.174	
2 nd step					
Ethnicity	-1.656(.748)	4.894	.027	.191	.044, .828
Crime frequency	.223(.099)	5.096	.024	1.250	1.030, .518
Callous-Unemotional	-.020(.215)	.009	.924	.980	.643, 1.494
Impulsivity	-.193(.186)	1.074	.300	.825	.573, 1.187
Narcissism	-.138(.149)	.859	.354	.871	.650, 1.166
Constant	-.413(1.340)	.095	.758	.662	
2-year general recidivism					
1 st step					
Ethnicity	-1.681(.590)	8.119	.004	.186	.059, .592
Crime frequency	.139(.076)	3.317	.069	1.149	.989, 1.335
Constant	-.936(.521)	3.230	.072	.392	
2 nd step					
Ethnicity	-1.707(.629)	7.376	.007	.181	.053, .622
Crime frequency	.173(.089)	3.806	.051	1.189	.999, 1.414
Callous-Unemotional	.062(.185)	.113	.736	1.064	.740, 1.530
Impulsivity	-.257(.173)	2.223	.136	.773	.551, 1.084
Narcissism	-.095(.130)	.540	.462	.909	.705, 1.172
Constant	.252(1.212)	.043	.835	1.287	

1-year violent recidivism					
1 st step					
Ethnicity	-21.63(4925.4)	.000	.996	.000	.000,
Crime frequency	.470(.204)	5.286	.021	1.600	1.072, 2.388
Constant	-4.208(1.402)	9.006	.003	.015	
2 nd step					
Ethnicity	-22.86(4528.8)	.000	.996	.000	.000,
Crime frequency	.639(.282)	5.129	.024	1.895	1.090, 3.296
Callous-Unemotional	-.248(.433)	.326	.568	.781	.334, 1.825
Impulsivity	.152(.364)	.175	.676	1.164	.570, 2.377
Narcissism	-.424(.315)	1.818	.178	.654	.353, 1.212
Constant	-3.356(3.071)	1.194	.275	.035	
2-year violent recidivism					
1 st step					
Ethnicity	-22.11(4838.4)	.000	.996	.000	.000,
Crime frequency	.504(.208)	5.887	.015	1.655	1.102, 2.487
Constant	-4.134(1.366)	9.163	.002	.016	
2 nd step					
Ethnicity	-22.77(4672.31)	.000	.996	.000	.000,
Crime frequency	.610(.268)	5.191	.023	1.841	1.089, 3.113
Callous-Unemotional	-.099(.370)	.072	.789	.906	.439, 1.869
Impulsivity	-.093(.312)	.090	.765	.911	.494, 1.679
Narcissism	-.276(.262)	1.103	.294	.759	.454, 1.270
Constant	-2.748(2.632)	1.090	.297	.064	

Note. APSD-SR = Antisocial Process Screening Device – Self-Report; Crime frequency = Retrospective number of official crimes

Table 6. Logistic regression coefficients of dimensions of the YPI predicting recidivism

	<i>B</i> (SE)	Wald	<i>p</i> value	Exp(<i>B</i>)	95% CI Exp(<i>B</i>)
1-year general recidivism					
1 st step					
Ethnicity	-1.683(.699)	5.796	.016	.186	.047, .731
Crime frequency	.187(.083)	5.045	.025	1.206	1.024, 1.419
Constant	-1.748(.590)	8.791	.003	.174	
2 nd step					
Ethnicity	-1.553(.773)	4.042	.044	.212	.047, .962
Crime frequency	.118(.101)	1.371	.242	1.126	.923, 1.373
Affective	.021(.082)	.065	.799	1.021	.870, 1.199
Behavioral	-.018(.052)	.115	.735	.982	.887, 1.088
Interpersonal	.055(.055)	1.026	.311	1.057	.949, 1.177
Constant	-2.663(2.077)	1.645	.200	.070	
2-year general recidivism					
1 st step					
Ethnicity	-1.681(.590)	8.119	.004	.186	.059, .592
Crime frequency	.139(.076)	3.317	.069	1.149	.989, 1.335
Constant	-.936(.521)	3.230	.072	.392	
2 nd step					
Ethnicity	-1.707(.659)	6.722	.010	.181	.050, .659
Crime frequency	.089(.089)	1.007	.316	1.093	.918, 1.302
Affective	-.026(.071)	.134	.714	.974	.848, 1.120
Behavioral	-.056(.046)	1.481	.224	.946	.865, 1.034
Interpersonal	.053(.047)	1.282	.258	1.054	.962, 1.155
Constant	.247(1.654)	.022	.881	1.281	

1-year violent recidivism					
1 st step					
Ethnicity	-21.61(4925.4)	.000	.996	.000	.000,
Crime frequency	.470(.204)	5.286	.021	1.600	1.072, 2.388
Constant	-4.208(1.402)	9.006	.003	.015	
2 nd step					
Ethnicity	-27.70(4178.53)	.000	.995	.000	.000,
Crime frequency	.187(.291)	.415	.519	1.206	.682, 2.133
Affective	-.597(.385)	2.407	.121	.551	.259, 1.170
Behavioral	.070(.115)	.373	.541	1.073	.857, 1.343
Interpersonal	.404(.211)	3.682	.055	1.498	.991, 2.264
Constant	-3.169(6.408)	.245	.621	.042	
2-year violent recidivism					
1 st step					
Ethnicity	-22.21(4838.42)	.000	.996	.000	.000,
Crime frequency	.504(.208)	5.887	.015	1.655	1.102, 2.487
Constant	-4.134(1.366)	9.163	.002	.016	
2 nd step					
Ethnicity	-25.69(4412.16)	.000	.995	.000	.000,
Crime frequency	.169(.276)	.375	.540	1.184	.689, 2.035
Affective	-.431(.274)	2.468	.116	.650	.380, 1.113
Behavioral	-.007(.094)	.006	.937	.993	.826, 1.193
Interpersonal	.353(.187)	3.556	.059	1.423	.986, 2.054
Constant	-2.036(5.214)	.152	.696	.131	

Note. YPI = Youth Psychopathic Traits Inventory; Crime frequency = Retrospective number of official crimes

2.3. Manuscrito III

Pechorro, P., DeLisi, M., Alberto, I., Ray, J., & Simões, M. (2019). The Triarchic Model of Psychopathy among incarcerated male youths: A psychometric study. In M. DeLisi (Ed.), *Routledge International Handbook of Psychopathy and Crime* (pp. 265-275). New York, NY: Routledge.

The Triarchic Model of Psychopathy among incarcerated male youths: A psychometric study

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In memory of George Palermo, esteemed editor of the International Journal of Offender Therapy and Comparative Criminology.

Abstract

The Triarchic model characterizes psychopathy in terms of varying configurations of three phenotypic tendencies: boldness, disinhibition, and meanness. This present study aimed to examine the psychometric properties of the Triarchic model of psychopathy based on the Youth Psychopathic Traits Inventory (YPI-Tri) among a forensic sample ($N=221$) of incarcerated male youths ($M=16.75$ years, $SD=1.41$). Problematic items (e.g., with low loadings, low item-total correlations) were excluded leading to the creation of a reduced form of the measure (YPI-Tri-S) with seven items per dimension. Confirmatory factor analysis offered subsequent support for the refined three-factor structure. The short measure of the Triarchic model of psychopathy showed adequate psychometric properties in terms of internal consistency, convergent validity, discriminant validity, and criterion-related validity. The psychometric results obtained suggest the YPI-Tri-S is a valid and reliable self-report measure of the Triarchic model of psychopathy which can be used to assess psychopathic traits in justice-involved youths.

Keywords: assessment; measurement invariance; Triarchic model of psychopathy; validation

Introduction

Patrick, Fowles, and Krueger's (2009) triarchic model is one of the newest conceptual models of psychopathy, one that highlights boldness, meanness, and disinhibition as being noteworthy features to the disorder. According to their historical review of the psychopathy construct, boldness, meanness, and disinhibition have been recurrent, central themes of the disorder. In their conceptualization, boldness relates to an assertive, socially dominant interpersonal style and venturesomeness. It is the ability to recover quickly from stressful situations, having high self-assurance, and having a tolerance for unfamiliarity and danger. Boldness encompasses social functioning and is clearly not intended to be limited to antisocial or criminal individuals, but is instead a general population feature.

In contrast, meanness captures the callous, cold, cruel, aggressive features of psychopathy and it draws on the tradition of criminal psychopathy seen in works from decades earlier (for a review, see DeLisi, 2016). Meanness captures the angry, hostile, aggressive, and violent aspects of the disorder. According to Patrick (2010), meanness is seen in many behavioral manifestations displayed in psychopath's life histories. These include arrogance and verbal derisiveness, defiance of authority, physical cruelty to animals (especially during childhood) and humans (during adolescence and adulthood), various forms of aggression, destructiveness, and the targeted exploitation of others for gain.

Disinhibition relates to impulsivity, irresponsibility, impatience and a general tendency to fail to inhibit one's conduct. It broadly captures the notion that psychopaths have severe self-regulation deficits and are unable to control themselves in a variety of contexts. Whereas non-psychopathic individuals are frequently able to inhibit their conduct in part by using self-sanctioning emotions such as shame, embarrassment, and guilt, psychopaths lack these emotions and by extension lack the emotional inhibitions to negative behavior.

In a study using samples of female prison inmates and university students, Sellbom and Phillips (2013) found that among college students, meanness correlated positively with measures of coldheartedness, callous and unemotional traits, egocentricity, and narcissism. Disinhibition correlated positively with measures of antisocial behavior, impulsivity, blame externalization, rebellious nonconformity, and carefree nonplanfulness. Boldness was correlated positively with social potency, stress immunity, and fearlessness. Among female prisoners, boldness was associated positively with narcissism, sensation seeking, thrill and adventure seeking, and negatively associated with the behavioral inhibition system (BIS). Meanness was negatively correlated with empathy and BIS and positively associated with Machiavellianism and sensation seeking. Disinhibition associated positively with sensation seeking boredom susceptibility, BAS drive, BAS fun seeking, and BAS reward responsiveness.

Less is known about the psychometric properties of the Triarchic model of psychopathy based on the Youth Psychopathic Traits Inventory, namely the YPI-Triarchic (YPI-Tri). In a study of university students, Drislane and colleagues (2015) found the measure had good internal consistency and convergent validity with other psychopathy measures including the Inventory of Callous-Unemotional Traits, Antisocial Process Screening Device, Child Psychopathy Scale, Youth Psychopathic Inventory, Self-Report Psychopathy Scale, and Levenson Self-Report Psychopathy Scale. There were also significant associations with negative traits associated with general personality functioning including social potency, wellbeing, achievement, social closeness, stress reaction, alienation, aggression, control, harm avoidance, and traditionalism from the Multidimensional Personality Questionnaire and Antagonism (low scores on trust, straightforwardness, altruism, compliance, modesty, and tendermindedness) from the NEO Personality Inventory-

Revised. While these are important findings, it is not clear how well the measure translates to a correctional/clinical sample of youth.

Current Aim

To our knowledge no previous study has examined the psychometric properties of the YPI-Tri among incarcerated male youths, which may limit generalizability of this measure to forensic or correctional populations with a higher base rate of psychopathy (Drislane et al., 2014). Thus, the main goal of the present study was to fill that research gap. It was predicted that the YPI-Tri would: (1) present a three-factor structure; (2) show adequate internal consistency values as measured by Cronbach's alpha; (3) show convergent validity with other measures of psychopathy, and discriminant validity with a measure of basic empathy; and (4) show criterion-related validity (e.g., with Conduct Disorder, crime seriousness).

Method

Participants

A sample of 221 male participants ($M=16.75$ years; $SD=1.41$ years; age range=13–20 years) from the nation-wide juvenile detention centers managed by the Ministry of Justice of Portugal agreed to voluntarily participate in the study. Most of them were white Europeans (54.3%), but the sample also included black Africans (20.5%), mixed race South-Americans (18.6%), and other ethnic minorities (6.8%). Most of them (87.6%) were convicted of having committed serious and/or violent crimes (e.g., robbery, assault, rape). The participants were incarcerated by the court's decision, the harshest disposition a court in Portugal can decide. Seven of the detention centers are considered low to medium security, and one is considered maximum security being exclusively used for youths tried as adults.

Measures

The Youth Psychopathic Traits Inventory –Triarchic (YPI-Tri; Drislane et al., 2015) is a 33-item self-report measure derived from items of the YPI with distinct relevance to

constructs of the Triarchic model. The YPI-Tri was designed using a three-step procedure. First, in a development phase, candidate items of the original item set of the YPI (Andershed et al., 2002) were selected based on consensus-based construct rating approach used in prior work (Hall et al., 2014). Second, the YPI-Tri scales underwent a refinement phase, and finally a psychometric evaluation phase. Each item is scored on an ordinal 4-point Likert scale (ranging from 0 = *Does not apply at all* to 3 = *Applies very well*). The YPI-Tri consists of three scales, namely: Boldness (10 items), Disinhibition (14 items), and Meanness (10 items). Higher scores reflect an increased presence of psychopathic traits.

The Youth Psychopathic Traits Inventory (YPI; Andershed et al. 2002) is a 50-item self-report measure designed to assess the core personality traits of the psychopathic personality constellation in youth aged 12 years old and up. Each item is scored on an ordinal 4-point Likert scale (ranging from 0 = *Does not apply at all* to 3 = *Applies very well*). The YPI consists of 10 subscales (with 5 items each) designed in line with Cooke and Michie's (2001) three-dimensional conceptualization of the psychopathy construct, namely: the Grandiose-Manipulative dimension (Dishonest charm, Grandiosity, Lying, and Manipulation subscales), the Callous-Unemotional dimension (Callousness, Unemotionality, and Remorselessness subscales), and the Impulsive-Irresponsible dimension (Impulsivity, Thrill-seeking, and Irresponsibility subscales). Higher scores reflect an increased presence of the characteristics associated, namely psychopathic traits. The Portuguese version of the YPI was used (Pechorro, Andershed, Ray, Maroco, & Gonçalves, 2015; Pechorro, Ribeiro da Silva, Andershed, Rijo, & Gonçalves, 2016). The internal consistency for the current study, estimated by Cronbach's alpha, was .87.

The Antisocial Process Screening Device (APSD; Frick & Hare, 2001) is a multidimensional 20-item measure designed to assess psychopathic traits in adolescents modeled after the Hare Psychopathy Checklist (Hare, 2003). Each item is anchored on a 3-

point ordinal scale (0 = *Never*, 1 = *Sometimes*, 2 = *Often*). The APSD-SR (Caputo, Frick, & Brodsky, 1999) has been used with pre-adolescents and adolescents ages 11–18 years old. Scores are calculated by reverse-scoring the reversible items and then summing the items to obtain the total score and the factors scores. This scale possesses three main factors: Callous-Unemotional, Narcissism, and Impulsivity. Higher scores indicate an increased presence of psychopathic traits. The Portuguese version of the APSD-SR was used (Pechorro, Maroco, Poiaras, & Vieira, 2013; Pechorro, Hidalgo, Nunes, & Jiménez, 2016). The internal consistency for the current study, estimated by Cronbach's alpha, was .81.

The Basic Empathy Scale (BES; Jolliffe, & Farrington, 2006) is a 20-item self-report measure designed to assess empathy in youths. The BES was developed as a concise and coherent scale with the aim of measuring two distinct factors: affective empathy and cognitive empathy. Each item is scored on a five-point ordinal scale (from 1 = *Strongly disagree* to 5 = *Strongly agree*). The BES has been used with pre-adolescents and adolescents aged 9–18 years old. Scores are calculated by reverse-scoring the positively worded items and then summing the items to obtain the total score and the factors scores. Higher scores indicate an increased presence of empathic characteristics. The Portuguese version of the BES was used (Pechorro, Ray, Salas-Wright, Maroco, & Gonçalves, 2015). The internal consistency for the current study, estimated by Cronbach's alpha, was .91.

The Sellin-Wolfgang Index of Crime Seriousness (ICS; Wolfgang et al., as cited in White et al. 1994) guided the delinquency seriousness classification of the official court reports. Level 0 consists of no delinquency. Level 1 consists of minor delinquency committed at home such as stealing minor amounts of money from mother's purse. Level 2 consists of minor delinquency outside the home including shoplifting something worth less than 5 euros, vandalism and minor fraud (e.g., not paying bus fare). Level 3 consists of moderately serious delinquency such as any theft over 5 euros, gang fighting, carrying weapons, and joyriding.

Level 4 consists of serious delinquency such as car theft and breaking and entering. Level 5 consists of having performed at least two of each of the behaviors in level 4.

A questionnaire was also constructed to describe the socio-demographic characteristics of the participants. This questionnaire included variables such as participants' age, nationality, ethnic group, and highest level of schooling completed. Some questions regarding alcohol abuse and drug use during the last year were also included (coded as five point ordinal variables from 0 = *Almost never/Never* to 4 = *Almost always/Always*).

Procedures

The original translation of the YPI into the European Portuguese language was used in the present study. The translation and retroversion followed appropriate procedures (e.g., avoiding item bias or differential item functioning). The questionnaire was then independently back-translated into English. The original and the back-translated items were compared for non-equivalence of meaning and items were revised when any discrepancies in meaning were detected until no semantic differences were identified between the English version and the Portuguese version (for more details see Pechorro, Andershed et al., 2015).

Authorization to assess youths from the eight existing Juvenile Detention Centers in Portugal that admit male youths was obtained from the Ministry of Justice. The detainees were informed about the nature of the study and asked to voluntarily participate. The participation rate was approximately 92%. Reasons for not participating in the present study included refusal to participate (5 %), inability to participate due to not understanding the Portuguese language (2 %) and inability to participate due to security issues (1 %). The measures were administered by means of individual face-to-face interviews. Some of the information (e.g., socio-demographic variables) was obtained from self-reports. Institutional files were also used to complement the information obtained (e.g., prior criminal activity and detentions, psychiatric diagnosis). The first author and a colleague made the diagnosis of

Conduct Disorder (American Psychiatric Association 2013), after interviewing each youth and taking into consideration the institutional files (which also included the official psychiatric and psychological assessments of each youth).

Analytic Plan

The data were analyzed using SPSS v24 (IBM SPSS, 2016) and EQS 6.3 (Bentler & Wu, 2015). Principal Components Analysis (PCA) with Varimax rotation was done using SPSS and Confirmatory Factor Analysis (CFA) with the robust estimation methods was done using EQS. Goodness-of-fit indices included Satorra-Bentler chi-square/degrees of freedom, comparative fit index (CFI), incremental fit index (IFI), and root mean square error of approximation (RMSEA). A chi-square/degrees of freedom value < 5 is considered acceptable, a value ≤ 2 is considered good, and a value of 1 is considered very good (Blunch, 2016; Maroco, 2014; West, Taylor, & Wu, 2012). A CFI $\geq .90$ and RMSEA $\leq .08$ indicate adequate fit whereas a CFI $\geq .95$ and RMSEA $\leq .06$ indicate good model fit. The incremental fit index, also known as Bollen's IFI, is relatively insensitive to sample size where values $\geq .90$ are considered acceptable. The CFA was performed on the ordinal items and standardized loadings above .30 were considered. No modification indices were used. Polychoric correlations were used together with robust methodologies to perform the CFA because they provide a more accurate estimate (Byrne, 2006).

Cronbach's alpha (α) (considered satisfactory if above .70), mean inter-item correlations (MIIC; considered good if within the .15-.50 range), and corrected item-total correlation ranges (CITCR; considered adequate if above .20) were used to assess reliability (Clark & Watson, 1995; Nunnally & Bernstein, 1994). Pearson correlations were used to analyze associations between scale variables, Spearman correlations were used to analyze associations between ordinal and scale variables, and point-biserial correlations were used to analyze associations between scale and nominal dichotomous variables (Leech, Barrett, &

Morgan, 2015). Correlations were considered low if below .20, moderate if between .20 and .50, and high if above .50.

Results

The first step in examining the psychometric properties of the YPI-Tri was to explore its factor structure using PCA with Varimax rotation. The Kaiser–Myer–Olkin measure of sampling adequacy (.82) and Bartlett Test of Sphericity ($\chi^2=1405.21$, $p\leq.001$) indicated the suitability of the data for exploratory factor analysis. Preliminary PCA was undertaken using a criterion of greater than or equal to .30 as the level of loading significance (Nunnally & Bernstein, 1994), with the results being compatible with the presumed three-factor solution. A three-component solution was subsequently forced with the components accounting for 43% of the common variance in scale items. However, several items obtained low loadings below the recommend level of .30 and/or high cross-loadings, especially regarding the Boldness factor (items 2 and 41) and the Meanness factor (items 23, 35 and 49). Corrected item-total correlations revealed these items obtained low associations (i.e., below .20) and they were excluded from subsequent analysis. Each factor retained seven items. Regarding the Disinhibition factor, item 50 was excluded and no substantial additional problems in terms of low item loadings or item-total correlations were found. However, in order to create a more parsimonious short version of the YPI-Tri while attempting to preserve the content coverage, redundant items were deleted (i.e., items 4, 9, 13, 26, 34 and 43) until only seven items remained on each factor. This strategy also took into account the guidelines established by Smith, McCarthy, and Anderson (2000) for developing valid and reliable alternative short-form measures. The reduced measure was hereafter referred to as Youth Psychopathic Traits Inventory Triarchic Short version (YPI-Tri-S).

The next step was to test the 3-factor first-order structure proposed for this instrument by means of CFA. The following goodness of fit indices were obtained: one-factor model S-

$B\chi^2/df = 2.97$, IFI = .83, CFI = .83, RMSEA = .09 (.08-.10); three-factor first-order model S- $B\chi^2/df = 1.84$, IFI = .92, CFI = .92, RMSEA = .06 (.05-.07); and three-factor second-order model S- $B\chi^2/df = 1.91$, IFI = .81, CFI = .81, RMSEA = .06 (.05-.07). Based on these appropriate goodness-of-fit indices we found support for the three-factor first-order model (Maroco, 2014; West et al., 2012). Presented in Table 1 are the loadings for the 3-factor first order inter-correlated model. All loadings were above .30.

[Insert Table 1]

Table 2 presents Pearson correlations between the YPI-Tri-S total and its dimensions. As expected, mostly positive moderate to high correlations were obtained.

[Insert Table 2]

Table 3 displays the alphas, mean inter-item correlations, and corrected item-total correlation ranges for the YPI-Tri-S. The YPI-Tri-S showed good internal consistency (alpha above the recommended cutoff value of .70), mean inter-item correlations (within the recommended value range of .15-.50), and corrected item-total correlations (above .20).

[Insert Table 3]

Table 4 presents the correlations of the YPI-Tri-S with other psychometric measures. The convergent validity with the original YPI and the APSD-SR revealed mostly moderate to high statistically significant correlations. Discriminant validity with the BES total revealed non-significant correlations. The Meanness scale showed a significant negative correlation with the BES affective scale, and the Boldness and Disinhibition scales showed significant positive correlations with the BES cognitive scale.

[Insert Table 4]

Table 5 shows the criterion-related validity. Results showed mostly statistically significant correlations varying from low to moderate in magnitude.

[Insert Table 5]

Discussion

The main aim of the present study was to test the psychometric properties of the YPI-Tri among incarcerated male juvenile delinquents. Our study mostly confirms the applicability of the triarchic model of psychopathy to incarcerated male youths, adding support for the psychometric properties previously obtained among undergraduate students (Drislane et al., 2014). However, the YPI-Tri measure underwent a refining process that excluded items, leading to the creation of a shortened version with only seven items per scale – the YPI-Tri-S.

The PCA results were compatible with the presumed three-factor solution and the CFA results strongly supported the three-factor inter-correlated model, while the one-factor model and the three-factor second-order model did not fit the data well. All factor loadings were above the .30 level, with the lowest one obtained for item 12 (“I think that crying is a sign of weakness, even if no one sees you”) of the Meanness scale and the highest one obtained for item 20 (“It’s easy for me to manipulate people”) of the Boldness scale. The Pearson correlations matrix between the YPI-Tri-S total and its dimensions showed mostly positive moderate to high statistically significant associations. The strongest association among the YPI-Tri-S scales was between Meanness and Boldness and the lowest between Meanness and Disinhibition. These values were similar to the ones found for the YPI-Tri by Drislane et al. (2014).

The YPI-Tri-S total and its three scales presented satisfactory Cronbach’s alpha values above the .70 recommended level (Nunnally & Bernstein, 1994). However, these values were somewhat lower than the ones obtained by Drislane et al. (2014), which might be explained by reduced number of items of the YPI-Tri-S. In terms of the mean inter-item correlations good values were found because the YPI-Tri-S total and the scales were within the .15-.50 range (Clark & Watson, 1995), showing appropriate homogeneity. The corrected

item-total correlation ranges were all above the minimum recommended value of .20 (Kaplan & Saccuzzo, 2013), demonstrating appropriate associations between the items.

The convergent validity of the YPI-Tri-S with the original YPI and the APSD-SR revealed mostly positive moderate to high statistically significant correlations demonstrating the expected overlap in line with Drislane et al.'s (2014) study. The discriminant validity with the BES total revealed the expected null or negative low correlations due to non-overlapping constructs (American Educational Research Association [AERA], 2014; Kaplan & Saccuzzo, 2013). The exceptions were the significant positive correlations of the Boldness and Disinhibition scales with the BES cognitive scale which can be explained by the fact that some males with high psychopathic traits appear to overcome deficits in cognitive empathy as they move through the pubertal years (Dadds et al., 2009).

The criterion-related validity of the YPI-Tri-S and its scales with the criminal variables revealed mostly the existence of moderate-low negative associations with age of crime onset, age of first problem with the law. Negative associations between psychopathy scores and the age of crime onset have been consistently reported in the literature (e.g., Forth et al., 2003; Pechorro, Maroco, Gonçalves, Nunes, & Jesus, 2014). Moderate-low positive associations were found with crime seriousness, but in terms of the violent crime variable only the Boldness scale obtained a statistically significant correlation. Such positive associations between psychopathy scores and antisocial and criminal behavior variables have been consistently reported in the literature (e.g., Forth et al., 2003; Poythress, Dembo, Wareham, & Greenbaum, 2006).

The criterion-related validity of the YPI-Tri-S and its scales with DSM's Conduct Disorder (American Psychiatric Association, 2013) showed mostly the positive moderate statistically significant associations typically provided by youth psychopathy instruments (e.g., Forth et al., 2003; Pechorro et al., 2013); the exception was the Meanness scale with a

lower correlation. The correlations of the YPI-Tri-S with alcohol use, cannabis use, and cocaine/heroin were positive and low to moderate to as expected from other short self-report measures of psychopathic traits (e.g., Colins, Noom, & Vanderplasschen, 2012). Overall, the YPI-Tri-S presented satisfactory relations to external correlates.

The findings of our study provide some additional support for the extension of the triarchic model of psychopathy to adolescents and its potential generalization across different cultures and ethnic groups. We were able to demonstrate some appropriate psychometric properties that justify the future use of the YPI-Tri-S. However, some caution is advised. Further psychometric procedures are needed and should be done in the near future (e.g., cross-validation using other samples, test-retest reliability, known-groups validity). Additionally, our study relied mostly on self-report measures which may artificially inflate the associations found due to shared method variance. Another serious limitation was the relatively small sample size, which is an important issue given that CFA was used (both Type I and II errors are much more likely with smaller samples, and this concern is elevated when the data are skewed).

To our knowledge this is the first study attempting to investigate the psychometric properties of a measure of the triarchic model of psychopathy especially designed with youths in mind among incarcerated male juvenile delinquents. We hope that our study may promote future research/use of this instruments with different samples (e.g., clinical, community) and contribute to the study of the psychopathy construct among youths. In conclusion, the present study generally lends support to the structural, criterion, external, and divergent validity and reliability of the YPI-Tri-S among incarcerated male youths.

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Table 1

Loadings for the confirmatory 3-factor structure of the YPI-Tri-S

	Factor 1	Factor 2	Factor 3
Boldness			
1. I like to be where exciting things happen.	.40		
11. I can make people believe almost anything.	.78		
15. I am good at getting people to believe in in me when [...].	.77		
19. I have talents that go far beyond other people's.	.44		
20. It's easy for me to manipulate people.	.81		
22. I like to do things just for the thrill of it.	.66		
36. What scares others usually doesn't scare me.	.43		
Disinhibition			
3. I prefer to spend my money right away rather than save it.		.46	
5. I have probably skipped school or work more than most [...].		.63	
16. I have often been late to work or classes in school.		.72	
18. It often happens that I talk first and think later.		.50	
29. I get bored quickly by doing the same thing over and over.		.43	
32. It often happens that I do things without thinking ahead.		.45	
40. I often don't/didn't have my school or work assignments [...].		.67	
Meanness			
8. I have the ability not to feel guilt and regret about things [...].			.71
12. I think that crying is a sign of weakness, even if no one [...].			.38
17. When other people have problems, it is often their own [...].			.47
21. I seldom regret things I do, even if other people feel that [...].			.67
39. I don't understand how people can be touched enough [...].			.49
44. To feel guilty and remorseful about things you have done [...].			.45
48. To feel guilt and regret when you have done something [...].			.64

Note. YPI-Tri-S = Youth Psychopathic Traits Inventory Triarchic short version

Table 2

Pearson correlation matrix for the YPI-Tri-S

	YPI-Tri-S total	Boldness	Disinhibition	Meanness
YPI-Tri-S total	1			
Boldness	.85***	1		
Disinhibition	.73***	.44***	1	
Meanness	.81***	.56***	.33***	1

Note. YPI-Tri-S = Youth Psychopathic Traits Inventory Triarchic short version

*** $p \leq .001$ level

Table 3

Cronbach's alphas, mean inter-item correlations, and corrected item-total correlation ranges for the YPI-Tri-S

	Alpha	MIIC	CITCR
YPI-Tri-S total	.84	.20	.23-.57
Boldness	.77	.32	.35-.62
Disinhibition	.72	.27	.34-.51
Meanness	.71	.26	.32-.52

Note. YPI-Tri-S = Youth Psychopathic Traits Inventory Triarchic short version; Alpha = Cronbach's Alpha; Omega = Omega coefficient; MIIC = mean inter-item correlation; CITCR = corrected item-total correlation range

Table 4

Convergent and discriminant validity of the YPI-Tri-S

	YPI-Tri-S total	Boldness	Disinhibition	Meanness
YPI total	.95***	.85***	.66***	.76***
YPI G-M	.79***	.81***	.44***	.62***
YPI I-I	.76***	.60***	.84***	.39***
YPI C-U	.81***	.64***	.36***	.91***
APSD total	.58***	.56***	.41***	.41***
APSD Narcissism	.50***	.53***	.31***	.36***
APSD Impulsivity	.45***	.38***	.45***	.25***
APSD CU	.26***	.24***	.14*	.24***
BES total	-.00	.03	.08	-.11
BES Affective	-.09	-.07	.01	-.15*
BES Cognitive	.11	.13*	.14*	-.00

Note. YPI-Tri-S = Youth Psychopathic Traits Inventory Triarchic short version; YPI = Youth Psychopathic Traits Inventory; YPI G-M Grandiose-Manipulative dimension; YPI I-I Impulsive-Irresponsible dimension; YPI C-U Callous-Unemotional dimension; APSD = Antisocial Process Screening Device – Self-Report; APSD CU = Callous-Unemotional dimension; BES = Basic Empathy Scale

*** $p \leq .001$ level, * $p \leq .05$ level

Table 5

Criterion-related validity of the YPI-Tri-S

	YPI-Tri-S total	Boldness	Disinhibition	Meanness
ACO	-.25***	-.29***	-.11	-.18**
AFPL	-.15*	-.15*	-.09	-.10
ICS	.25***	.21***	.23***	.16*
VC	.11	.16*	.00	.08
CD diagnostic	.22***	.20**	.18**	.11
Alcohol	.24***	.23***	.21***	.16*
Cannabis	.33***	.27***	.26***	.26***
Coca/Hero	.31***	.30***	.29***	.15*

Note. YPI-Tri-S = Youth Psychopathic Traits Inventory Triarchic short version; ACO = Age of crime onset; AFPL = Age of first problem with the law; ICS = Index of crime seriousness; VC = Violent crime; CD diagnostic = DSM-5 Conduct Disorder diagnostic; Coca/Hero = Cocaine/Heroin

*** $p \leq .001$ level, ** $p \leq .01$ level, * $p \leq .05$ level

2.4. Manuscrito IV

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Triarchic Model of Psychopathy: A brief measure among detained female youths

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Abstract

The present study examined the psychometric properties of a brief measure of the Triarchic model of psychopathy based on the Youth Psychopathic Traits Inventory (YPI-Tri-S) among a forensic sample of detained female youth offenders ($M = 16.41$ years; $SD = 1.19$ years) from Portugal. Results supported the expected three-factor structure and cross-gender measurement invariance. The YPI-Tri-S showed good psychometric properties in terms of factor structure, internal consistency, convergent validity, discriminant validity, and criterion-related validity. Findings suggest that the YPI-Tri-S is a valid and reliable measure of the Triarchic model of psychopathy, which can be used to assess female juvenile offenders.

Keywords: Assessment; Triarchic Model of Psychopathy; female offenders; juvenile delinquency

Introduction

The recently developed Triarchic Model of Psychopathy (Patrick, Fowles, and Krueger 2009) conceptualizes boldness, meanness, and disinhibition as distinct key features of psychopathy with specific neurobiological referents. The triarchic model was formulated to reconcile different conceptions of psychopathy reflected in historic and contemporary scientific writings (e.g., scope of the psychopathy construct, unitary versus configural nature of the construct, conceptualization of the “successful” psychopath, criminal behavior as an essential dimension of psychopathy) while addressing a large amount of unresolved issues in the field, and providing a general framework for conceptualization and assessment of psychopathy (Patrick and Drislane 2015).

According to Patrick (2010a), the triarchic model proposes that psychopathy encompasses three distinct but intersecting symptomatic (phenotypic) constructs: boldness, disinhibition, and meanness. Boldness describes a phenotypic style entailing a capacity to remain calm and focused in situations involving pressure or threat, an ability to recover quickly from stressful events, high self-assurance and social efficacy, and a tolerance for unfamiliarity and danger. Disinhibition describes a general phenotypic propensity toward impulse control problems entailing a lack of planfulness and foresight, impaired regulation of affect and urges, insistence on immediate gratification, and deficient behavioral restraint. Meanness describes a constellation of phenotypic attributes, including deficient empathy, disdain for and lack of close attachments with others, rebelliousness, excitement seeking, exploitativeness, and empowerment through cruelty.

A growing number of empirical studies have been published providing support for the triarchic model, with the majority of these studies using the Triarchic Psychopathy Measure (TriPM; Patrick, 2010b), a 58-item self-report inventory, to operationalize boldness, disinhibition and meanness through separate subscales (Patrick and Drislane, 2015). The

TriPM has been translated into several foreign languages (e.g., Greek, Italian, Spanish) and used with adult participants from diverse samples, including forensic samples, clinical samples, undergraduate samples, population-representative samples, and general community samples (e.g., Poy, Segarra, Esteller, López, and Moltó 2014; Stanley, Wygant, and Sellbom 2013; Vieira et al. 2014). A specific limitation associated with the TriPM is that it was originally designed to be used with adult populations. This raises a considerable problem, considering the investigative effort that has been made over the past two decades to the study of psychopathy in childhood and adolescence (Patrick, Fowles, and Krueger 2009).

Drislane et al. (2015) tried to address this problem by developing the Youth Psychopathic Traits Inventory –Triarchic (YPI-Tri; Drislane et al. 2015), a 33-item self-report measure that aims to measure the triarchic model derived from items of the original YPI (Andershed et al. 2002). The YPI-Tri was designed by Drislane et al. (2015) using a three-step procedure: 1) initial candidate items of the original item set of the YPI were selected based on a consensus-based construct rating approach; 2) then, the YPI-Tri scales underwent a refinement phase; and 3) finally, a psychometric evaluation phase. Just as the YPI, each item of the YPI-Tri is scored on an ordinal 4-point Likert scale, with higher scores reflecting the increased presence of triarchic psychopathic traits. The YPI-Tri is composed of three scales consistent with the triarchic model: Boldness (10 items), Disinhibition (14 items), and Meanness (10 items).

Recently, Pechorro, DeLisi, Alberto, Ray, and Simões (in press) examined the psychometric properties of the YPI-Tri among a forensic sample of incarcerated male delinquents in Portugal. These authors found several items that were problematic in terms of low factor loadings using exploratory factor analysis and low item-total correlations. These problematic items were then dropped to create a brief measure of the YPI-Tri-S with seven items per dimension. Subsequent confirmatory factor analysis supported a three-factor

structure of the refined 21-item measure. The YPI-Tri-S showed adequate psychometric properties in terms of its reliability, convergent validity with psychopathic traits measures, discriminant validity with a basic empathy measure, and criterion-related validity with criminal career variables (e.g., age of crime onset, crime seriousness), Conduct Disorder, and substance use indicators. However, the application of the YPI-Tri-S to forensic samples composed of female youth offenders has not been done.

Objectives of the present study

No previous studies, as far as we are aware, examined the psychometric properties of a measure of the Triarchic Model of Psychopathy among detained female youth offenders. Also, because the YPI-Tri-S is a new measure it is particularly important to analyze its validity and reliability among different sample types. We hypothesized that: a) the YPI-Tri-S will present a three-factor structure and cross-gender invariance with a previously collected sample of male youth offenders; b) internal consistency will show adequate values; c) convergent validity will be found with measures of other facets of the psychopathy construct (e.g., callous-unemotional traits, impulsivity) and related constructs (e.g., aggression), and discriminant validity will be found with measures of empathy and social anxiety; and d) significant associations will be found with criterion-related variables (e.g., violent criminality, drug use, Conduct Disorder diagnostic).

Method

Participants

The sample was composed of 103 participants (mean age = 16.41 years; $SD = 1.19$ years; range = 14 – 18 years) recruited from the three juvenile detention centers managed by the Portuguese Ministry of Justice that admit female detainees. Most of the participants were white Europeans (59%) coming from an urban background (97%), and with a low socioeconomic status (60%). Their crime onset ($M = 12.50$ years; $SD = 1.56$ years) and first

criminal contact with the law ($M = 13.27$ years; $SD = 1.55$ years) occurred early in their lives. Most of the participants were detained due to serious crimes (e.g., robbery, assault) before they were 16 years old ($M = 15.90$, $SD = 1.04$).

Measures

The Youth Psychopathic Traits Inventory – Triarchic – Short (YPI-Tri-S; Pechorro, DeLisi, Alberto, Ray, and Simões, in press) is a 21-item brief measure derived from Drislane et al.'s (2015) YPI-Triarchic scales measured with distinct relevance to constructs of the Triarchic model of psychopathy (Patrick et al. 2009). The YPI-Tri-S was designed using a refinement phase and a psychometric evaluation phase. Each item is scored on an ordinal 4-point Likert scale (ranging from 0 = *Does not apply at all*, to 3 = *Applies very well*). The YPI-Tri-S consists of three scales, namely: Boldness (7 items), Disinhibition (7 items), and Meanness (7 items). Higher scores reflect an increased presence of the associated characteristics, namely psychopathic traits. Internal consistency values will be given in the results section.

The Youth Psychopathic Traits Inventory – Short (YPI-S; van Baardewijk et al. 2010) is an 18-item self-report shorter version of the original YPI (Andershed et al. 2002) designed to measure psychopathic traits in adolescents aged 12-years-old and up. Each item in the YPI-S is scored on a 4-point ordinal scale (ranging from 0 = *Does not apply at all*, to 3 = *Applies very well*). In line with the three-factor model of psychopathy (Cooke and Michie, 2001), the items of the YPI-S comprise three factors with six items each, namely the Grandiose-Manipulative or Interpersonal dimension, the Callous-Unemotional or Affective dimension, and the Impulsive-Irresponsible or Behavioral dimension. A total YPI-S score can be computed by summing the answers to the items. Higher scores indicate an increased presence of psychopathic characteristics. The Portuguese version was used (Pechorro, Andershed, Ray, Maroco, and Gonçalves 2015; Pechorro, Ribeiro da Silva, Rijo, Gonçalves, and Andershed

2017). The internal consistency for the current study, estimated by Cronbach's alpha (α) was .85.

The Antisocial Process Screening Device (APSD; Frick and Hare, 2001) Self-Report version (APSD-SR; Caputo, Frick, and Brodsky 1999) is a multidimensional 20-item measure designed to assess psychopathic traits in adolescents modeled after the Hare Psychopathy Checklist-Revised (Hare, 2003). Each item is anchored on a 3-point ordinal scale (0 = *Never*, 1 = *Sometimes*, 2 = *Often*). The APSD-SR has been used with pre-adolescents and adolescents ages 11–18 years old. Scores are calculated by reverse-scoring the reversible items and then summing the items to obtain the total score and the factor scores. This scale possesses three main factors: Callous-Unemotional, Narcissism, and Impulsivity. Higher scores indicate an increased presence of psychopathic traits. The Portuguese version was used (Pechorro, Hidalgo, Nunes, and Jiménez 2016; Pechorro, Gonçalves, Andershed, and DeLisi 2017). The internal consistency for the current study was $\alpha = .75$.

The Inventory of Callous-Unemotional Traits (ICU; Essau, Sasagawa, and Frick 2006; Kimonis et al. 2008) is a 24-item self-report scale designed to assess callous-unemotional traits in youth. Each item is scored on a four-point scale (ranging from 0 = *Not at all true* to 3 = *Definitely true*). Scores are calculated by reverse-scoring the appropriate items and then summing the items to obtain the total score and the factor scores. Using confirmatory factor analysis it was possible to identify three independent factors, namely: Callousness, Unemotional, and Uncaring, with all items also loading onto a general callous-unemotional factor (bifactor model). Higher scores indicate an increased presence of CU traits. The Portuguese version was used (Pechorro, Ray, Barroso, Maroco, and Gonçalves 2016; Pechorro, Gonçalves, Hawes and Ray, in press). The internal consistency for the current study was $\alpha = .84$.

The Reactive-Proactive Aggression Questionnaire (RPQ; Raine et al. 2006) is a 23-item self-report measure that distinguishes between reactive and proactive aggression and is appropriate for use with youths and young adults. Each item is rated on a 3-point ordinal scale (0 = *Never*, 1 = *Sometimes*, and 2 = *Often*). Summed scores provide a measure of reactive or proactive aggression as well as a global aggression score. Confirmatory factor analysis identified two factors: reactive aggression and proactive aggression. Higher scores indicate higher levels of aggression. The Portuguese version was used (Pechorro, Ray, Raine, Maroco, and Gonçalves 2017; Pechorro, Kahn, Ray, Raine, and Gonçalves 2017). Internal consistency for the present study was $\alpha = .87$.

The Barratt Impulsiveness Scale version 11 (BIS-11; Patton et al. 1995; Stanford et al. 2009) is a 30-item self-report questionnaire designed to measure impulsiveness. Each item is scored on a 4-point ordinal scale (1 = *Rarely/never* to 4 = *Almost always/always*). The BIS-11 contains six factors: Attention, Cognitive instability, Motor, Perseverance, Self-control, and Cognitive complexity. The total score, as well as each dimension score, is obtained by adding the respective items. Higher scores indicate higher impulsivity. A Portuguese version was used (Pechorro, Maroco, Ray, and Gonçalves 2015; Pechorro, Ayala-Nunes, Ray, Nunes, and Gonçalves 2016). Internal consistency for the present study was $\alpha = .82$.

The Childhood and Adolescent Taxon Scale (CATS; Harris et al. 1994; Quinsey, Harris, Rice, and Cormier, 2006) is an actuarial rating scale developed from eight childhood and adolescent variables, most having to do with antisocial or aggressive behavior (e.g., “Childhood aggression problem”, “Arrested below the age of 16”). It has eight dichotomous items (0 = *No*, 1 = *Yes*). Higher scores indicate a greater likelihood of persistent antisocial behavior associated with the antisocial dimension of psychopathy. Relevant information to score CATS items can be obtained through self-report (CATS-SR) or clinical rating (e.g.,

using clinical reviews, institutional files). The Portuguese version was used (Pechorro, 2011; Pechorro, Seto, Ray, Alberto, and Simões, submitted).

The Social Anxiety Scale for Adolescents (SAS-A; La Greca and Lopez, 1998) is a 22-item self-report scale designed to assess the subjective experience of social anxiety in adolescents between the ages 13 and 18 years. Four of the items are fillers and therefore are not taken into account when calculating the final score. Each item is rated on a 5-point ordinal scale (ranging from 0 = *Not at all* to 4 = *All the time*). Confirmatory factor analysis identified three factors: Fear of Negative Evaluation (FNE), Social Avoidance and Distress-New (SAD-New), and Social Avoidance and Distress-General (SAD-General). Higher scores indicate higher levels of social anxiety. The Portuguese version was used (Pechorro, Ayala-Nunes, Nunes, Maroco, and Gonçalves 2016). Internal consistency for the present study was $\alpha = .94$.

The Basic Empathy Scale (BES; Jolliffe and Farrington, 2006) is a 20-item self-report scale designed to assess affective empathy and cognitive empathy in adolescents. Each item is scored on a five-point ordinal scale (ranging from 1 = *Strongly disagree*, to 5 = *Strongly agree*). Scores are calculated by reverse-scoring the positively worded items and then summing the items to obtain the factor scores. A total score can also be calculated. Higher scores indicate an increased presence of empathy. The Portuguese version was used (Pechorro, Ray, Salas-Wright, Maroco, and Gonçalves 2015). The internal consistency for the current study, estimated by Cronbach's alpha, was $\alpha = .80$.

The Sellin-Wolfgang Index of Crime Seriousness (ICS; Sellin and Wolfgang, 1964) was used to classify official crime reports. The following levels were used: 0 - no delinquency; 1 - minor delinquency committed at home (e.g., stealing minor amounts of money at home); 2 - minor delinquency outside the home (e.g., shoplifting something worth less than five euros, vandalism, minor fraud); 3 - moderately serious delinquency (e.g., any

theft over five euros, gang fighting, carrying weapons, joyriding); 4 - serious delinquency (e.g., car theft, breaking and entering); 5 – a minimum of two behaviors mentioned in level 4.

A questionnaire was constructed to describe the socio-demographic characteristics of the participants and included variables such as such as participants' age, nationality, ethnic group, and highest level of schooling completed. Also included were some questions regarding alcohol, drug use and risky sex during the last year (coded as 5-point ordinal variables from 0 = *Almost never/Never* to 4 = *Almost always/Always*). The Conduct Disorder (CD) diagnosis (APA, 2013) was assessed by the first author of this article and a colleague using the official diagnostic criteria described in the DSM-5. The diagnosis was made using interviews and institutional files (these files also included psychiatric information).

Procedures

The official translation of the YPI into the Portuguese language commonly spoken in Portugal by adolescents and young adults previously conducted (Pechorro, Andershed et al. 2015) was used in the present study. The classically recommended procedure of back-translation was used. The preliminary translation from English into Portuguese was completed by the first author of this paper and a colleague, with the back-translation into English being completed by a professional native English speaker translator. Discrepancies were revised until no semantic differences were detected between the English and Portuguese versions.

The General Directorate of Reintegration and Prison Services of the Portuguese Ministry of Justice (DGRSP-MJ) granted authorization to assess the detained youth. The detainees were asked to voluntarily participate after being informed about the purpose of the investigation. Participation rate was approximately 89%. Participants who were unwilling (i.e., refusal) or unable (e.g., inability to understand Portuguese, security issues) to collaborate were excluded. Individual face-to-face interviews were used to administer the

measures. Official institutional files were also used to complement the information obtained from self-reports.

A previously collected forensic sample of detained male youth offenders was used to test for cross-gender measurement invariance. This sample also originated from the Portuguese juvenile detention centers managed by the Portuguese Ministry of Justice (for additional details see the previous study by Pechorro, DeLisi, et al. in press).

Results

Confirmatory factor analysis (Bentler and Wu, 2015, Blunch, 2016) was used to test the different possible factor structures of the YPI-Tri-S among the current female sample, with an emphasis on the previously proposed three-factor structure. The goodness-of-fit indexes obtained regarding the different models tested were: one-factor ($SB\chi^2 / df = 3.67$, IFI = .46, CFI = .45, RMSEA 90% CI = .16 [.15, .17], AIC = 315.03), three-factor intercorrelated ($SB\chi^2 / df = 1.80$, IFI = .91, CFI = .91, RMSEA 90% CI = .08 [.07, .09], AIC = -30.01), three-factor 2nd order ($SB\chi^2 / df = 3.22$, IFI = .56, CFI = .55, RMSEA 90% CI = .15 [.13, .16], AIC = 226.29), bifactor ($SB\chi^2 / df = 3.04$, IFI = .65, CFI = .64, RMSEA 90% CI = .14 [.13, .15], AIC = 170.34). Table 1 displays the item loadings for the three-factor intercorrelated model, which obtained the best fit, and also the corrected item-total correlations. All the loadings were above the recommended .40 level and all the corrected item-total correlations were above the .25 level.

[Insert Table 1]

Measurement invariance was then tested across gender (females from the present sample versus males from the previously collected forensic sample). Results presented in Table 2 show that the $\Delta SB\chi^2(df)$ values were non-significant, the ΔCFI did not exceed .01, and the $\Delta RMSEA$ was less than .015 (Chen, 2007). These overall results support the

existence of measurement invariance across gender (Millsap and Olivera-Aguilar, 2012; West, Taylor, and Wu 2012).

[Insert Table 2]

Table 3 shows the Pearson correlations between the YPI-Tri-S total and its factors and the internal consistency (reliability) values. The correlations were moderate to strong and the internal consistency values were considered good (Dunn, Baguley, and Brunnsden 2014; Field, 2013; Finch, Immekus, and French 2016).

[Insert Table 3]

Table 4 presents the convergent validity of the YPI-Tri-S and its factors with construct-overlapping measures (e.g., APSD-SR, ICU) demonstrating moderate to high statistically significant positive associations. The discriminant validity with non-overlapping measures (i.e., BES, SAS-A) revealed the null or negative associations. Table 4 also presents the criterion-related validity with construct-related variables (e.g., age of crime onset). A very high prevalence (85.4%) of Conduct Disorder (DSM-5; APA. 2013) was found ($ICC = .89, p \leq .001$).

[Insert Table 4]

Discussion

The present investigation examines the recently introduced YPI-Tri-S, a brief measure of the triarchic model of psychopathy (i.e., boldness, disinhibition, and meanness) among a forensic sample of detained female youth. The results from the confirmatory factor analysis suggested that a three-factor structure best fit the data which is consistent with the original conceptualization of the triarchic model (Patrick et al. 2009) and, more specifically, the YPI-Tri-S (Pechorro, DeLisi et al. in press). Tests of measurement invariance confirmed the factor structure across gender using a previously collected sample of detained male youths. This is an important finding as it gives researchers utilizing the YPI-Tri-S more confidence in

comparing groups and generalizing findings (Millsap and Olivera-Aguilar, 2012). The moderate to strong inter-correlations among the boldness, disinhibition, and meanness factors, also support the notion that these are three distinct components that have the overarching psychopathy latent trait.

The findings also confirm that the YPI-Tri-S is a reliable measure based on several reliability estimates (i.e., alpha, omega, mean inter-item correlations). From a developmental standpoint, these findings extend the notion of the triarchic model of psychopathy to youth, particularly as measured by the YPI-Tri-S. This is important as it helps to understand how psychopathic traits manifest across development and if it can be reliably measured at different stages (e.g., Seagrave and Grisso, 2002; Lynam et al. 2009).

With regard to the convergent, criterion and discriminant validity of the YPI-Tri-S and its dimensions, the correlations were in the expected directions. Moderate to strong positive correlations were found with other measures of psychopathic traits, callous-unemotional traits, aggression, and impulsivity. On the other hand, mostly null or negative correlations were found with measures of empathy and social anxiety. These correlations are consistent with previous research (see Patrick and Drislane, 2015, for a review).

In terms of the criterion-related validity of the YPI-Tri-S and its scales with the criminal variables, mostly moderate negative associations were found with age of crime onset, age of first problem with the law, and age first incarceration. These kinds of negative associations between psychopathic traits and the age of crime onset have been consistently reported in the literature (e.g., see Forth, Kosson, and Hare 2003, for a review). Moderate-low positive associations were found between the YPI-Tri-S total score and crime seriousness, violent crimes, and number of crime charges. The associations of the boldness, disinhibition, and meanness scales with crime seriousness were also moderate. However,

regarding violent crimes and number of crime charges, the only significant association found was with the meanness scale.

The associations of the YPI-Tri-S total score and the subscales with DSM's Conduct Disorder (American Psychiatric Association, 2013) were, for the most part, significant in the positive direction with moderate effect sizes which is similar to those typically found among youth psychopathy instruments (e.g., Forth et al. 2003). The highest association was with the Disinhibition scale and the lowest was with the Meanness scale which was non-significant. The associations of the YPI-Tri-S with alcohol use, cannabis use, and cocaine/heroin were low to moderate in magnitude and in the positive direction, which is consistent with other short self-report measures of psychopathic traits (e.g., Colins, Noom, and Vanderplasschen 2012). Regarding the risky sex variable, only the Meanness scale reached a significant level. Overall, we must consider that the YPI-Tri-S presented adequate relations to the external correlates examined (Drislane et al. 2015; see also Patrick et al. 2009, for a review) despite the fact it does not include a criminal behavior dimension in its factor structure (Debowska et al. 2018; Skeem and Cooke, 2010).

Our findings have relevant conceptual and practical implications. The present study builds on Drislane et al.'s (2015) study by extending the triarchic model of psychopathy to detained female youths. As far as we are aware this is the first study examining the validity and reliability of a measure of the Triarchic Model of Psychopathy among a sample of detained female youth offenders. The use of the YPI-Tri-S is supported as we demonstrated it is a meaningful, yet efficient, measure of psychopathic traits. This is important for expanding and clarifying the nomological network of the triarchic model by validating its measurement with existing measures. The findings of the current study, along with prior research among young adults (e.g., Drislane et al. 2015, Patrick et al. 2009), do suggest that psychopathic

traits as conceptualized in the triarchic model manifest similarly among adolescents, at least as measured by the YPI-Tri-S.

However, we must point out some limitations of the current study. The findings are based on cross-sectional data from one particular country (i.e., Portugal). The forensic sample did not follow strict random selection procedures, which limits the generalizability of the current findings to the broader population. More research is needed to examine the issue of measurement invariance among other groups (e.g., ethnicity, age) and samples (e.g., clinical, community). The temporal stability of the YPI-Tri-S should be examined and the predictive utility of the total score and subscales should be tested using longitudinal data. These limitations open new possible windows of investigation.

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Table 1

Item loadings and corrected item-total correlations of the YPI-Tri-S

YPI-Tri-S items	Loadings	CITC
Boldness		
1. I like to be where exciting things happen.	.74	.75
11. I can make people believe almost anything.	.67	.62
15. I am good at getting people to believe in in me when [...].	.65	.56
19. I have talents that go far beyond other people's.	.72	.65
20. It's easy for me to manipulate people.	.77	.74
22. I like to do things just for the thrill of it.	.68	.53
36. What scares others usually doesn't scare me.	.57	.47
Disinhibition		
3. I prefer to spend my money right away rather than save it.	.70	.44
5. I have probably skipped school or work more than most [...].	.65	.40
16. I have often been late to work or classes in school.	.67	.51
18. It often happens that I talk first and think later.	.64	.59
29. I get bored quickly by doing the same thing over and over.	.41	.25
32. It often happens that I do things without thinking ahead.	.46	.39
40. I often don't/didn't have my school or work assignments [...].	.40	.25
Meanness		
8. I have the ability not to feel guilt and regret about things [...].	.58	.45
12. I think that crying is a sign of weakness, even if no one [...].	.51	.31
17. When other people have problems, it is often their own [...].	.80	.46
21. I seldom regret things I do, even if other people feel that [...].	.67	.55
39. I don't understand how people can be touched enough [...].	.57	.42
44. To feel guilty and remorseful about things you have done [...].	.55	.27
48. To feel guilt and regret when you have done something [...].	.73	.49

Note. YPI-Tri-S = Youth Psychopathic Traits Inventory Triarchic short version; CITC = Corrected Item-Total Correlations

Table 2

Tests for invariance of the YPI-Tri-S

Model	SB χ^2 (df)	Δ SB χ^2 (df)	*CFI(Δ CFI)	*RMSEA (90% C.I.)
Unconstrained model	684.27(372)	--	.91(--)	.07(.06-.08)
Weak (metric) invariance	710.87(390)	20.51(18) ^{ns}	.91(.00)	.07(.06-.08)
Strong (scalar) invariance	721.69(396)	28.86(24) ^{ns}	.91(.00)	.07(.06-.08)

Note. SB χ^2 (df) = Satorra-Bentler chi-square (degrees of freedom); *CFI = robust Comparative Fit Index; *RMSEA = robust Root Mean Square Error of Approximation; C.I. = confidence interval

ns=non-significant

Table 3

Pearson zero-order correlation matrix and internal consistency of the YPI-Tri-S

	YPI-Tri-S total	Boldness	Disinhibition	Meanness
YPI-Tri-S total	1			
Boldness	.89***	1		
Disinhibition	.75***	.60***	1	
Meanness	.73***	.50***	.22*	1
Alpha	.88	.87	.75	.78
Omega	.91	.89	.81	.84
MIIC	.26	.48	.30	.34

Note. YPI-Tri-S = Youth Psychopathic Traits Inventory Triarchic short version; MIIC = mean inter-item correlation

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

Table 4

Convergent, discriminant, and criterion-related validity of the YPI-Tri-S

	YPI-Tri-S total	Boldness	Disinhibition	Meanness
YPI-S	.92***	.81***	.55***	.78***
APSD-SR	.69***	.57***	.55***	.51***
ICU	.37***	.27**	.30**	.31**
RPQ	.54***	.53***	.47***	.28**
BIS-11	.61***	.54***	.66***	.25**
CATS-SR	.26**	.31**	.38***	.12 ^{ns}
SAS-A	.08 ^{ns}	.06 ^{ns}	-.08 ^{ns}	.16 ^{ns}
BES	.03 ^{ns}	.16 ^{ns}	.09 ^{ns}	-.21*
Age of crime onset	-.56***	-.54***	-.32**	-.43***
Age first law problem	-.40***	-.39***	-.20*	-.34***
Age first incarceration	-.22*	-.21*	-.22*	-.08 ^{ns}
CD diagnostic	.34***	.30**	.41***	.10 ^{ns}
Crime seriousness	.33***	.21*	.21*	.37***
Violent crimes	.30**	.18 ^{ns}	.08 ^{ns}	.27*
No. crime charges	.29**	.17 ^{ns}	.10 ^{ns}	.18 ^{ns}
Alcohol	.24*	.22*	.17 ^{ns}	.20*
Cannabis	.35***	.23*	.21*	.20*
Cocaine/heroin	.40***	.29**	.25**	.19*
Risky sex	.21*	.09 ^{ns}	.17 ^{ns}	.21*

Note. YPI-Tri-S = Youth Psychopathic Traits Inventory Triarchic short version; YPI-S = Youth Psychopathic Traits Inventory short version; APSD-SR= Antisocial Process Screening Device – Self-Report; ICU= Inventory of Callous-Unemotional Traits; RPQ= Reactive-Proactive Aggression Questionnaire; BIS-11 = Barratt Impulsiveness Scale version 11; CATS-SR = Childhood and Adolescent Taxon Scale – Self-Report; SAS-A= Social Anxiety Scale for Adolescents; BES = Basic Empathy Scale

*** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$, *ns*=non-significant

2.5. Manuscrito V

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A brief measure of the Triarchic Model of Psychopathy among community youths:

Psychometrics and measurement invariance

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Abstract

The development and validation of empirically sound measures that operationalize the Triarchic model of psychopathy among youth is currently in the nascent stage. The present study aimed to examine the psychometric properties of a brief refined measure of the Triarchic model of psychopathy based on the Youth Psychopathic Traits Inventory (YPI-Tri-S) among a mixed-gender school sample of 782 youth ($M=15.87$ years, $SD=1.72$) from Portugal. Confirmatory factor analysis offered support for the theoretically expected three-factor structure. Cross-gender measurement invariance using the present sample and cross-sample measurement invariance of the YPI-Tri-S using a previously collected forensic sample of institutionalized males was established. The YPI-Tri-S showed adequate psychometric properties in terms of discriminant validity, convergent validity, concurrent criterion-related validity, known-groups validity, and internal consistency. Findings indicate that YPI-Tri-S is a valuable brief and psychometrically reliable and valid self-report measure of the Triarchic model of psychopathy for use in diverse samples of youth.

Keywords: adolescence; assessment; measurement invariance; Triarchic model of psychopathy; validation

Introduction

The scientific study of psychopathy is characterized by extensive development of valid and reliable measurement tools of the disorder, and at times, this has engendered vociferous debate within the field on the most appropriate ways to operationalize and study the disorder (cf., Boduszek, Debowska, Dhingra, & DeLisi, 2016; Boduszek & Debowska, 2016; Hare & Neumann, 2010; Hemphill & Hare, 2004; Skeem & Cooke, 2010). Although these debates have been contentious, a healthy consequence of this debate has been the proliferation of measures of psychopathy that focus on assorted characteristics of the disorder. Many of these new measures are self-report inventories that allow for relatively fast assessment, avoid the potential tautological problems of using official records, such as arrest and correctional data, but also allow for an additional data source that can be triangulated with official criminal records.

Patrick, Fowles, and Krueger's (2009; Patrick, 2010) triarchic model of psychopathy is an example of a newer, innovative approach to conceptualizing psychopathy. The model focuses explicitly on boldness, meanness, and disinhibition as the salient features of the disorder ones that are consistent with the out-of-control, risky, and audacious behaviors and the cold, insensitive, and highly aversive interpersonal style of psychopathic individuals particularly serious criminal offenders. In their conceptual model, boldness equates to a dashing, assertive, dominant interpersonal style and sense of adventure. It is the self-assured ability to recover quickly from stressful situations and have a tolerance for unfamiliarity and danger. Boldness relates to social functioning and is not limited to antisocial or criminal individuals, but is instead a general population feature. Meanness captures the angry, hostile, aggressive, and violent aspects of the disorder. Meanness is seen in many behavioral manifestations displayed in psychopath's life histories including verbal derisiveness and defiance of authority (e.g., parents, teachers, police), physical cruelty to animals and humans,

and disparate forms of aggression, destructiveness, and the targeted exploitation of others for gain. Disinhibition relates to impulsivity, irresponsibility, and the overall tendency to fail to inhibit one's conduct. Disinhibition emphasizes the concept that psychopaths have severe self-regulation deficits and are unable or unwilling to control themselves in a variety of contexts. Taken together, the notion that psychopaths are mean, bold, and behaviorally disinhibited is highly consistent with criminological research which has shown that psychopathy is powerfully linked with the most serious, chronic, and violent offending trajectories (Baskin-Sommers et al., 2016; Boduszek, Debowska, & Willmott, 2017; Connolly et al., 2017; Corrado, McCuish, Hart, & DeLisi, 2015; DeLisi et al., 2014; McCuish, Corrado, Hart, & DeLisi, 2015; Vaughn, Howard, & DeLisi, 2008).

A growing number of empirical studies have been published providing support for the triarchic model (Balash & Falkenbach, 2018; Coffey, Cox, & Kopkin, 2018; Latzman et al., 2019), with the majority of these studies using the Triarchic Psychopathy Measure (TriPM; Patrick, 2010b), which is a 58-item self-report inventory to operationalize boldness, disinhibition and meanness through separate subscales (Patrick & Drislane, 2015). The TriPM has been translated into several foreign languages (e.g., Greek, Italian, and Spanish) and used with adult participants from diverse samples, including forensic samples, clinical samples, undergraduate samples, population-representative samples, and general community samples (e.g., Poy, Segarra, Esteller, López, & Moltó, 2014; Stanley, Wygant, & Sellbom, 2013; Vieira et al., 2014). A specific limitation associated with the TriPM is that it was originally designed to be used with adult populations. This raises a considerable problem, considering the investigative effort that has been made over the past two decades to the study of psychopathy in childhood and adolescence (Patrick et al., 2009).

The creation of measures to operationalize the triarchic model of psychopathy among youths is in an early stage, so there is a need to develop and validate empirically sound

measures. A promising 33-item measure is based on the Youth Psychopathic Traits Inventory (YPI-Tri). In a study of university students, Drislane and colleagues (2015) found the measure had good internal consistency and convergent validity with other psychopathy measures including the Inventory of Callous-Unemotional Traits, Antisocial Process Screening Device, Child Psychopathy Scale, Youth Psychopathic Inventory, Self-Report Psychopathy Scale, and Levenson Self-Report Psychopathy Scale. There were also significant associations with negative traits associated with general personality functioning including social potency, wellbeing, achievement, social closeness, stress reaction, alienation, aggression, control, harm avoidance, and traditionalism from the Multidimensional Personality Questionnaire and Antagonism from the NEO Personality Inventory-Revised (Drislane et al., 2015).

Recently, Pechorro, DeLisi, Alberto, Ray, and Simões (2019) examined the psychometric properties of the YPI-Tri among a forensic sample of incarcerated male delinquents in Portugal. They found several items that were problematic in terms of low factor loadings and low item-total correlations and thus were dropped to create the shorter YPI-Tri-S with only seven items per dimension. Such brief refined measures are useful because they tend to be time- and cost-effective. Subsequent exploratory and confirmatory factor analysis offered support for a 3-factor structure of the 21-item YPI-Tri-S that showed adequate psychometric properties in terms of its internal consistency, convergent validity with the original YPI and ASPD-SR, and concurrent criterion-related validity with criminal career variables, Conduct Disorder, and substance use indicators. However, the application of the YPI-Tri-S to non-forensic youth samples has not been done. Thus, it is necessary to extend the triarchic model of psychopathy to community-based youth, while demonstrating that the measures used to assess it are valid, reliable, and efficient.

Current Focus

The main goal of the present study was to analyze the psychometric properties of the YPI-Tri-S among a school sample of male and female youths. It was predicted that the YPI-Tri-S would present a three-factor structure and that the YPI-Tri-S would exhibit measurement invariance across gender using the present school sample. Utilizing data previously collected among a male forensic sample, we also predicted that the YPI-Tri-S would show measurement invariance across the school and forensic samples type. Finally, we predicted that the YPI-Tri-S would show acceptable to good internal consistency values; show convergent validity, discriminant validity, and concurrent criterion-related validity; and demonstrate known-groups validity with males from the school sample scoring higher than females, and scoring lower than males from a previously collected forensic sample.

Method

Participants

A sample of 782 Portuguese participants ($M=15.87$ years, $SD=1.72$ years, range=12-20 years), recruited from public schools of three different regions of Portugal (Algarve, great Lisbon, and Coimbra), was divided into males ($n=371$, $M=15.97$ years, $SD=1.70$ years, range=12-20 years) and females ($n=411$, $M=15.77$ years, $SD=1.73$ years, range=12-20 years) participated in the present study. The large majority of the youths were white Europeans (89.5%), while the remaining ones were black (3.7%), mixed race (5.8%), or unspecified (1%). Significant differences were found between the white participants and the ethnic minorities participants regarding age ($F=18.06$, $p\leq.001$) with the latter being older, but no differences were found in terms of the level of education completed ($F=.25$, $p=.62$). No differences in terms of age ($F=2.64$, $p=.11$) or level of education ($F=1.70$, $p=.19$) were found between the genders.

Measures

The Youth Psychopathic Traits Inventory – Triarchic – Short (YPI-Tri-S; Pechorro, DeLisi, Alberto et al., 2019) is a 21-item brief measure derived from Drislane et al.’s (2015) YPI-Triarchic scales measure with distinct relevance to constructs of the Triarchic model of psychopathy (Patrick et al., 2009). The YPI-Tri-S was designed using a refinement phase and a psychometric evaluation phase. Each item is scored on an ordinal 4-point scale (ranging from 0 = *Does not apply at all*, to 3 = *Applies very well*). The YPI-Tri-S consists of three scales, namely: Boldness (7 items), Disinhibition (7 items), and Meanness (7 items). Higher scores reflect an increased presence of triarchic psychopathic traits. Internal consistency values will be given later in the results section of the present article.

The Youth Psychopathic Traits Inventory-Short (YPI-S; van Baardewijk et al., 2010) is an 18-item self-report inventory designed to assess psychopathic traits in youths in line with Cooke and Michie’s (2001) three-factor model of the psychopathy construct. Each item is scored on a 4-point ordinal scale (ranging from 0 = *Does not apply at all*, to 3 = *Applies very well*). The YPI-S is comprised of three factors with six items each, namely the Grandiose-Manipulative or Interpersonal factor (e.g., item 14. “I have the ability to con people by using my charm and smile”), the Callous-Unemotional or Affective factor (e.g., item 12. “I think that crying is a sign of weakness, even if no one sees you”), and the Impulsive-Irresponsible or Behavioral factor (e.g., item 9. “I consider myself as a pretty impulsive person”). The YPI-S can be scored by adding the answers to the items, with higher scores indicate an increased presence of psychopathic traits. The Portuguese version of this inventory was used (Pechorro, Ribeiro da Silva, Rijo, Gonçalves, & Andershed, 2017). The internal consistency for the current study, estimated by Cronbach’s alpha (α) was .84 for the total school sample, .84 for the male school sample, and .82 for the female school sample.

The Antisocial Process Screening Device – Self-Report (APSD-SR; Caputo, Frick, & Brodsky, 1999) is a 20-item measure designed to assess psychopathic traits in adolescents.

Each item is anchored on a 3-point ordinal scale (0 = *Never*, 1 = *Sometimes*, and 2 = *Often*). This measure can be used with pre-adolescents and adolescents, and possesses three main factors: the Callous-Unemotional (e.g., item 19. “You hide your feelings or emotions from others”), the Narcissism factor (e.g., item 8. “You brag a lot about your abilities, accomplishments, or possessions”), and the Impulsivity factor (e.g., item 4. “You act without thinking of the consequences”). Higher scores indicate an increased presence of psychopathic traits. Scores are calculated by reverse-scoring the reversible items and then summing the items to obtain the factors scores and the total score. The Portuguese version was used (Pechorro, Hidalgo, Nunes, & Jiménez, 2016). The internal consistency for the current study was $\alpha = .77$ for the total school sample, .76 for the male school sample, and .77 for the female school sample.

The Inventory of Callous-Unemotional Traits (ICU; Essau, Sasagawa, & Frick, 2006) is a 24-item self-report scale designed to assess callous-unemotional traits in youth. Each item is scored on a four-point scale (ranging from 0= *Not at all true*, to 3= *Definitely true*). Scores are calculated by reverse-scoring the appropriate items and then summing the items to obtain the total score and the factors scores. It possesses three main factors: the Callousness factor (e.g., item 4. “I do not care who I hurt to get what I want”), the Uncaring factor (e.g., item 17. “I try not to hurt others’ feelings”, reverse-scored), and the Unemotional factor (e.g., item 6. “I do not show my emotions to others”). Because all items also load onto a general callous-unemotional factor it can also be viewed as a bifactor model. Higher scores indicate an increased presence of callous-unemotional characteristics. The Portuguese version of this inventory was used (Pechorro, Ray, Barroso, Maroco, & Gonçalves, 2016). The internal consistency for the current study was $\alpha = .88$ for the total school sample, .88 for the male school sample, and .87 for the female school sample.

The Reactive-Proactive Aggression Questionnaire (RPQ; Raine et al., 2006) is a 23-item self-report questionnaire that assesses both reactive aggression and proactive aggression. It can be used with adolescents and young adults. Each item is rated on a 3-point ordinal scale (0 = *Never*, 1 = *Sometimes*, and 2 = *Often*). Summed scores provide a measure of reactive aggression, proactive aggression, as well as global aggression score. The RPQ possesses two factors: the reactive aggression factor (e.g., item 1. “I yelled at others when they annoyed me”), and the proactive aggression factor (e.g., item 2. “I had fights with others to show who was on top”). Higher scores indicate higher levels of the aggression characteristics specified. The Portuguese version of the RPQ was used (Pechorro, Ayala-Nunes, Kahn, & Nunes, 2017). Internal consistency for the present study was $\alpha = .85$ for the total school sample, .86 for the male school sample, and .83 for the female school sample.

The Social Anxiety Scale for Adolescents (SAS-A; La Greca & Lopez, 1998) is a 22-item self-report measure that assess social anxiety in youths. Each item is rated on a 5-point ordinal scale (ranging from 0 = *Not at all*, to 4 = *All the time*). Four items are fillers that are not considered when calculating the scores. It possesses three factors: the Fear of Negative Evaluation factor (FNE; e.g., item 3. “I worry about being teased”), the Social Avoidance and Distress-New factor (SAD-New; e.g., item 1. “I worry about doing something new in front of others”), and the Social Avoidance and Distress-General factor (SAD-General; e.g., item 19. “I’m afraid to invite others to do things with me because they might say no”). Higher scores indicate higher levels of social anxiety. The Portuguese version was used (Pechorro, Ayala-Nunes, Nunes, Maroco, & Gonçalves, 2016). Internal consistency for the present study was $\alpha = .92$ for the total school sample, .92 for the male school sample, and .92 for the female school sample.

A short *ad hoc* questionnaire was built to examine the sociodemographics of the participants (e.g., age, ethnicity). This questionnaire also included were some questions about

alcohol and drug abuse during the last 12 months (coded as 5-point ordinal variables from 0 = *Almost never/Never* to 4 = *Almost always/Always*). A self-report Conduct Disorder (CD; American Psychiatric Association, 2013) measure composed of 15 items was also used.

Procedures

The official translation of the YPI into the European Portuguese (Pt-Pt) language commonly spoken in Portugal by adolescents and young adults previously conducted was used in the present study (see Pechorro, Andershed et al., 2015 for more details). Authorization to assess youths was obtained from the Ethics Committee of the Portuguese Ministry of Education. Informed consent was obtained from the participants and parental permission was obtained. Some of the youths were excluded due to several kinds of motives (e.g., refusal to participate, severe reading difficulties). The final sample was composed of 782 participants (participation rate of 87%). The previously collected forensic sample of male youth originated from eight nation-wide juvenile detention centers managed by the Portuguese Ministry of Justice. It included 221 male participants ($M = 16.75$ years; $SD = 1.41$ years; age range = 13–20 years). Most of them were white Europeans (54.3%), but the sample also included black Africans (20.5%), mixed race South Americans (18.6%), and other ethnic minorities (6.8%). Most of them (87.6%) were convicted of having committed serious and/or violent crimes (e.g., robbery, assault, rape). They were incarcerated by the court's decision, the harshest disposition a court in Portugal can decide (for more details see the previous study by Pechorro, DeLisi, et al., 2019).

The SPSS v25 software (IBM SPSS, 2017) and EQS 6.3 software (Bentler & Wu, 2015) were used to analyze our data. Confirmatory Factor Analysis (CFA) was performed with the Maximum Likelihood (ML) robust estimation methods of the EQS software. The usual standard goodness of fit indices were considered: Satorra- Bentler (SB) χ^2/df value; IFI, CFI, RMSEA, and AIC (Blunch, 2016; Brown, 2015). Items with standardized loadings

below .30 were excluded. Several models were tested: 1) a one-factor model where all the items load on a single latent factor; 2) an inter-correlated three-factor model where items load on their respective factors; 3) a three-factor model with a second order higher factor; and 4) a bifactor model with one general factor and three subordinate factors. No modification indexes were used in the present study to improve the models tested.

Measurement invariance was investigated by testing configural, metric and scalar invariance (Horn & McArdle, 1992). The configural model (i.e., no constraints included) served as the baseline model to which stricter models were compared. That is, the fit indices of the baseline model were compared to a model wherein factor loadings were equally constrained across groups (i.e., weak or metric invariance) and with a model where factor loadings and covariances were equally constrained across groups (i.e., strong or scalar invariance). Competing models were compared using the Satorra-Bentler chi-square difference testing approach for nested models. However, as this method has been shown to be sensitive to sample size and violations of normality (Brannick, 1995), we also compared differences in absolute fit indices among these nested models. Prior research suggests that changes in CFI equal to or less than .01, and changes in RMSEA of equal to or less than .015 provides evidence in support of invariance (Chen, 2007; Cheung & Rensvold, 2002), although some research suggests using a more stringent criteria (i.e., change in CFI equal to or less than .002; Meade, Johnson, & Braddy, 2008).

Results

CFA was initially used to test the different possible factor structures the YPI-Tri-S among the current school sample, with an emphasis on the previously proposed three-factor structure (see Table 1). Based on these appropriate goodness-of-fit indices (Blunch, 2016) the three-factor inter-correlated model was the best fitting model among both the male and female samples. Among the male sample the three-factor 2nd order model produced a good fit

and the one-factor produced a marginally acceptable fit, but both these models were not acceptable among the female sample, including also the bifactor model.

[Insert Table 1]

Standardized loadings and corrected item-total Pearson correlations (Finch, Immekus, & French, 2016) of the three-factor inter-correlated model for the male sample and female samples are reported in Table 2. All standardized loadings were above the recommended value of .30, but two items had item-total correlations below that value.

[Insert Table 2]

Measurement invariance was then tested across gender (males versus females from the school sample) and sample type (males from the school sample versus males from the previously collected forensic sample) using the three-factor model (Table 3). Results showed that the $\Delta SB\chi^2(df)$ values were significant across sample type, but even so the ΔCFI did not exceed .01, and $\Delta RMSEA$ was less than .015 (Chen, 2007). These overall results corroborate the presence of measurement invariance across gender and sample type).

[Insert Table 3]

Table 4 presents the Pearson correlations matrixes and internal consistency values of the YPI-Tri-S total and its scales among the male and female samples. As expected, positive moderate to high correlations were obtained, the total YPI-Tri-S scale showed good internal consistency based on alpha and omega coefficients (above the recommended cutoff value of .70), and mean inter-item correlations (within the recommended value range of .15-.50) (Dunn, Baguley, & Brunnsden, 2014).

[Insert Table 4]

Table 5 displays the correlations and partial-correlations controlling for the remaining scales of the YPI-Tri-S with other psychometric measures and variables for the male and female samples (Field, 2013, IBM Corp., 2017). The convergent validity of the YPI-Tri-S

total and its scales with other measures of psychopathic traits (i.e., YPI-S, APSD-SR, ICU), and aggression (i.e., RPQ) revealed mostly moderate to high statistically significant correlations. Discriminant validity with the measure of social anxiety (i.e., SAS-A) revealed negative or non-significant correlations. Table 5 also presents the correlations with CD symptoms, alcohol abuse, cannabis use, and risky unprotected sex (i.e., sex without using condoms). As shown in the table, the YPI-Tri-S and its scales mostly showed positive statistically significant correlations with all of these behaviors varying from low to moderate in magnitude. Common method bias (CMB) was assessed using Harman's single factor score (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) where all items are loaded into one common factor. Results showed that the total variance for the single factor was 27.72%, less than the 50% cutoff value, so CMB did not affect our data.

[Insert Table 5]

Comparisons intended to test the known-groups validity revealed that the males from the school sample scored significantly higher than the females on the YPI-Tri-S total and its scales, and that males from the school sample scored significantly lower on the YPI-Tri-S total and its scales (see Table 6).

[Insert Table 6]

Discussion

It is important that research validate measures of psychopathy that are based on distinct conceptual models of the construct in order to help answer questions regarding the construct and to derive empirically sound measures. The current study advances our knowledge in this area by examining a recently introduced brief measure of psychopathic traits (i.e., YPI-Tri-S) based on the triarchic model of psychopathy (i.e., boldness, meanness, and disinhibition; Patrick et al., 2009) among a diverse sample of community-based Portuguese youth. The psychometric properties of the YPI-Tri-S were examined using

multiple measurement techniques. We found fairly strong support for its construct validity based on results from a confirmatory factor analysis across different groups (e.g., males vs. females; incarcerated vs. community) and its associations with external criteria. The following briefly reviews the findings and discusses the conceptual, empirical, and practical implications.

To begin, the results from the confirmatory factor analysis suggested that a three-factor structure best fit the data which is consistent with the original conceptualization of the triarchic model (Patrick et al., 2009) and, more specifically, the YPI-Tri-S (Pechorro, DeLisi et al., 2019). The inter-correlations among the three factors, also support the notion that these are three distinct components that have the overarching psychopathy latent trait in common given the significant, yet moderate, strength. The findings also confirm that the YPI-Tri-S is a reliable measure based on a multitude of reliability estimates (e.g., alpha, omega). From a developmental standpoint, these findings extend the notion of the triarchic model of psychopathy to youth, particularly as measured by the YPI-Tri-S. This is important as it helps to understand how psychopathic traits manifest across development and if it can be reliably measured at different stages (e.g., Seagrave & Grisso, 2002; Lynam et al., 2009). Additionally, tests of measurement invariance confirmed the factor structure across gender and sample type. This is an important finding as it gives researchers utilizing the YPI-Tri-S more confidence in generalizing findings across groups (e.g., Leone, Van der Zee, Oudenhoven, Perugini, & Ercolani, 2005). Nonetheless, more research is needed to examine the issue of measurement invariance among other groups (e.g., cross-cultural/language, age, and race).

In terms of the convergent, criterion, and discriminant validity of the YPI-Tri-S and its subscales, the correlations were in the expected directions and were fairly consistent across males and females. There were, however, a few notable distinctions across gender. For

instance, the partial correlation with meanness and the ICU was only significant for males. Alternatively, the partial correlations remained significant for all three subscales for females; however, the partial correlation for meanness was the strongest ($r = .39$) compared to boldness ($r = .12$) and disinhibition ($r = .14$). Conceptually, these findings support the nomological net of the triarchic model as measured by the YPI-Tri-S given the conceptual overlap between boldness and CU traits (Patrick et al., 2009). Another unique finding across gender was the relationship between anxiety and the YPI-Tri-S. For males, none of the correlations were significant while boldness and meanness exhibited significant negative correlations for females. This finding is somewhat consistent with prior research finding unique patterns in the relationship between psychopathy and anxiety for males and females – psychopathic females have higher levels of anxiety compared to psychopathic males (Colins, Fanti, Salekin, & Andershed, 2017). The partial correlations between YPI-Tri-S disinhibition scale was non-significant for males yet was significant for females while the reverse pattern was found for meanness. Finally, the associations with risky sex were somewhat unique across gender as well. That is, the partial correlations between boldness were significant for males but not females while disinhibition showed the opposite pattern of associations. These latter two findings suggest that psychopathic traits, in terms of the triarchic model, may manifest differently across gender. Thus, future research should consider gender effects when examining outcomes of psychopathic traits. Nonetheless, the YPI-Tri-S and its factors evidenced discriminant, criterion, and convergent validity with several constructs that were consistent with its nomological network.

The known-groups analysis also supported the validity of the YPI-Tri-S and the three factors. As expected, incarcerated males had higher mean scores than the male school sample and the male school sample had higher mean scores than the female school sample. Additionally, this was the case for the subscales with the exception of the disinhibition

subscale for the male forensic and male school sample. It may be that characteristics such as impulsiveness, irresponsibility, and impatience are simply much more typical among adolescent males in general (e.g., Steinberg, 2008). Again, these findings are consistent with prior research, particularly studies showing that psychopathic traits distinguish between delinquent and non-delinquent youth (Frick, Ray, Thornton, & Kahn, 2014; Vaughn et al., 2008).

The findings from the current study should be interpreted within the context of several limitations. First, the findings are based on cross-sectional data. The invariance of the YPI-Tri-S should be examined over time and the predictive utility of the total score and subscales should be tested using longitudinal data. Second, with the exception of CD symptoms among the forensic sample, all measures were based on self-report and, thus, could have resulted in inflated associations due to shared method variance. However, in the current analyses this was accounted for using Harman's single factor approach and is, therefore, less of a concern. Third, neither the school nor the forensic sample followed strict random selection procedures, which limits the generalizability of the current findings to the broader population. However, this somewhat attenuated as the sample was selected from diverse geographic regions across Portugal. Finally, as discussed by Drislane et al. (2015), the YPI does not appear to provide an effective pool of items for indexing the boldness construct of the triarchic model due to the lack of items pertaining to the social efficacy and stress immunity facets of boldness. This can be considered an important limitation of our brief measure, indicating that the item content of the YPI may seriously constrain the effectiveness of the boldness dimension (Drislane & Patrick, 2017; Ruchensky, Edens, Donnellan, Hawes, & Mulvey, in press).

Despite these limitations, the findings from the current study have important conceptual and practical implications. As far as we are aware the YPI-Tri-S is the only available brief measure of the triarchic model of psychopathy especially designed with youths

in mind, and this is the first study investigating its psychometric properties among a community sample of male and female youths. Most importantly, this study builds on Drislane et al. (2015) by validating the use of the YPI-Tri-S as a meaningful and efficient brief measure that presents a good fit in terms of CFA and measurement invariance across genders and with a forensic sample of incarcerated male youths. Establishing measurement invariance is a fundamental step before scores on a measure or associations with external measures (e.g., self-reported delinquency) can be compared across different groups. This study also expands and clarifies the nomological network of the triarchic model by validating its measurement with existing measures. The TPI-Tri-S may provide an important contributions in terms of promoting much needed research on the triarchic model of psychopathy in youth, especially justice-involved youth. Indeed, very little research regarding the triarchic model has been done using forensic samples and even fewer studies have considered criminal outcomes and risk assessment (Sellbom, 2019). Considering this lack of knowledge, we hope researchers attempting to study the triarchic constructs in adolescent samples find the YPI-Tri-S a useful tool.

Compliance with Ethical Standards:

Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

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Table 1

Fit indexes for the different models of the YPI-Tri-S

	$SB\chi^2/df$	IFI	CFI	RMSEA (90% CI)	AIC
Male					
1-factor	3.72	.90	.90	.09 (.08-.09)	325.02
3-factor	2.23	.96	.96	.06 (.05-.07)	42.92
3-factor 2 nd order	1.38	.96	.96	.03 (.02-.04)	-114.99
Bifactor	3.01	.81	.81	.07 (.07-.08)	168.38
Female					
1-factor	5.90	.82	.82	.11 (.10-.12)	737.65
3-factor	3.61	.91	.91	.08 (.07-.09)	298.91
3-factor 2 nd order	2.81	.84	.84	.07 (.06-.07)	151.20
Bifactor	4.65	.71	.70	.10 (.09-.10)	443.48

Note. YPI-Tri-S = Youth Psychopathic Traits Inventory Triarchic short version; $SB\chi^2(df)$ = Satorra-Bentler chi-square (degrees of freedom); IFI = Incremental Fit Index; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation; C.I. = confidence interval; AIC = Akaike Information Criteria

Table 2

Loadings and corrected item-total of the YPI-Tri-S

Items	Loadings M / F	CITC M / F
Boldness		
1. I like to be where exciting things happen.	.32 / .43	.32 / .37
11. I can make people believe almost anything.	.86 / .87	.57 / .56
15. I am good at getting people to believe in in me when I make [...].	.79 / .91	.51 / .63
19. I have talents that go far beyond other people's.	.47 / .53	.36 / .45
20. It's easy for me to manipulate people.	.89 / .90	.58 / .59
22. I like to do things just for the thrill of it.	.55 / .60	.58 / .48
36. What scares others usually doesn't scare me.	.36 / .45	.28 / .35
Disinhibition		
3. I prefer to spend my money right away rather than save it.	.58 / .45	.46 / .37
5. I have probably skipped school or work more than most other people.	.61 / .39	.45 / .35
16. I have often been late to work or classes in school.	.63 / .62	.49 / .36
18. It often happens that I talk first and think later.	.50 / .65	.32 / .39
29. I get bored quickly by doing the same thing over and over.	.40 / .44	.33 / .36
32. It often happens that I do things without thinking ahead.	.70 / .76	.55 / .50
40. I often don't/didn't have my school or work assignments done [...].	.65 / .60	.47 / .38
Meanness		
8. I have the ability not to feel guilt and regret about things that I [...].	.70 / .68	.52 / .41
12. I think that crying is a sign of weakness, even if no one sees you.	.49 / .38	.40 / .25
17. When other people have problems, it is often their own fault, [...].	.58 / .63	.39 / .32
21. I seldom regret things I do, even if other people feel that they [...].	.80 / .59	.59 / .40
39. I don't understand how people can be touched enough to cry by [...].	.48 / .51	.37 / .31
44. To feel guilty and remorseful about things you have done that [...].	.69 / .61	.51 / .34
48. To feel guilt and regret when you have done something wrong [...].	.78 / .68	.58 / .41

Note. YPI-Tri-S = Youth Psychopathic Traits Inventory Triarchic short version; M/F = Male/Female samples; CITC = corrected item-total correlations

Table 3

Tests for invariance of the YPI-Tri-S

Model	SB χ^2 (df)	Δ SB χ^2 (df)	CFI(Δ CFI)	RMSEA (90% C.I.)
Cross-gender (male vs. female)				
1. No constrains model	1088.13(372)	--	.93(--)	.07(.07-.08)
2. Weak (metric) invariance	1105.70(390)	1.53(18) ^{ns}	.93(.00)	.07(.06-.07)
3. Strong (scalar) invariance	1133.16(396)	4.46(24) ^{ns}	.93(.00)	.07(.07-.07)
Sample type (school vs. forensic)				
1. No constrains model	759.09(372)	--	.94(--)	.06(.05-.06)
2. Weak (metric) invariance	794.65(390)	35.47(18)*	.94(.00)	.06(.05-.06)
3. Strong (scalar) invariance	799.92(396)	42.49(24)*	.94(.00)	.06(.05-.06)

Note. SB χ^2 (df) = Satorra-Bentler chi-square (degrees of freedom); CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation; C.I. = confidence interval

* $p \leq .05$, *ns*=non-significant

Table 4

Pearson correlation matrixes and internal consistency for the YPI-Tri-S and its scales

	YPI-Tri-S total	Boldness	Disinhibition	Meanness
Male/Female				
YPI-Tri-S total	1			
Boldness	.84*** / .85***	1		
Disinhibition	.83*** / .81***	.58*** / .53***	1	
Meanness	.82*** / .75***	.53*** / .46***	.51*** / .40***	1
Alpha	.87 / .85	.75 / .80	.74 / .72	.78 / .71
Omega	.91 / .90	.80 / .86	.78 / .75	.84 / .79
MIIC	.24 / .21	.29 / .37	.29 / .26	.33 / .25

Note. YPI-Tri-S = Youth Psychopathic Traits Inventory Triarchic short version; MIIC = mean inter-item correlation

*** $p \leq .001$

Table 5

Correlations and partial-correlations of the YPI-Tri-S with other variables

	YPI-Tri-S total	Boldness	Disinhibition	Meanness
Male				
YPI-S	.93***	.79***(.66***)	.74***(.55***)	.80***(.70***)
APSD-SR	.60***	.51***(.26***)	.48***(.20***)	.49***(.26***)
ICU	.46***	.26***(-.02 ^{ns})	.35***(.08 ^{ns})	.52***(.47***)
RPQ	.46***	.41***(.21***)	.38***(.15**)	.37***(.14**)
SAS-A	.05 ^{ns}	-.01 ^{ns} (-.07 ^{ns})	.09 ^{ns} (.10 ^{ns})	.04 ^{ns} (.02 ^{ns})
CD symptoms	.46***	.41***(.21***)	.32***(.03 ^{ns})	.42***(.25***)
Alcohol	.29***	.29***(.17**)	.26***(.15**)	.18**(-.02 ^{ns})
Cannabis	.23***	.24**(.17**)	.20***(.11*)	.12*(-.06 ^{ns})
Risky sex	.16**	.17**(.12*)	.13*(.04 ^{ns})	.09 ^{ns} (-.01 ^{ns})
Female				
YPI-S	.92***	.74***(.62***)	.69***(.63***)	.75***(.72***)
APSD-SR	.62***	.45***(.17**)	.55***(.38***)	.46***(.27***)
ICU	.51***	.37***(.12*)	.34***(.14*)	.51***(.39***)
RPQ	.50***	.38***(.18***)	.45***(.30***)	.34***(.14**)
SAS-A	-.12*	-.21***(-.21***)	.03 ^{ns} (.10 ^{ns})	-.12*(-.03 ^{ns})
CD symptoms	.39***	.32***(.12*)	.36***(.19***)	.22***(.08 ^{ns})
Alcohol	.43***	.36***(.25***)	.44***(.36***)	.21***(-.07 ^{ns})
Cannabis	.23***	.19***(.12*)	.24***(.18***)	.11*(-.03 ^{ns})
Risky sex	.12*	.12*(.05 ^{ns})	.22***(.20***)	-.08 ^{ns} (-.16**)

Note. YPI-Tri-S = Youth Psychopathic Traits Inventory Triarchic short version; YPI-S = Youth Psychopathic Traits Inventory short version; APSD-SR= Antisocial Process Screening Device – Self-Report; ICU= Inventory of Callous-Unemotional Traits; RPQ= Reactive-Proactive Aggression Questionnaire; SAS-A= Social Anxiety Scale for Adolescents; CD symptoms = DSM-5 Conduct Disorder symptoms

*** $p \leq .001$; ** $p \leq .01$; * $p \leq .05$; ns =non-significant; partial-correlations are in parenthesis

Table 6

Descriptive statistics and ANOVAs for the YPI-Tri-S and its scales

	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>F</i> (<i>p</i> value)	Effect size η_p^2 (power)
Cross-gender	Male school	Female school		
YPI-Tri-S total	23.39(9.11)	18.56(8.59)	57.742($\leq.001$)	.069(1.00)
Boldness	8.14(3.60)	6.25(3.92)	48.783($\leq.001$)	.059(1.00)
Disinhibition	8.42(3.66)	7.82(3.80)	5.086(=.024)	.007(.615)
Meanness	6.83(3.72)	4.50(3.21)	87.944($\leq.001$)	.102(1.00)
Sample type	Male school	Male forensic		
YPI-Tri-S total	23.39(9.11)	31.76(8.55)	130.09($\leq.001$)	.176(1.00)
Boldness	8.14(3.60)	9.45(3.77)	18.869($\leq.001$)	.031(.991)
Disinhibition	8.42(3.66)	13.92(3.41)	349.29($\leq.001$)	.364(1.00)
Meanness	6.83(3.72)	8.39(3.82)	25.181($\leq.001$)	.041(.999)

Note. YPI-Tri-S = Youth Psychopathic Traits Inventory Triarchic short version; *M* = Mean; *SD* = Standard Deviation; η_p^2 = partial eta squared

2.6. Manuscrito VI

Pechorro, P., Seto, M., Alberto, I., Ray, J., & Simões, M. (in press). The Childhood and Adolescent Taxon Scale – Self-Report: Validity among male and female youths from forensic and school contexts. *International Journal of Forensic Mental Health*. Doi: 10.1080/14999013.2019.1623349

The Childhood and Adolescent Taxon Scale – Self-Report: Validity among male and female youths from forensic and school contexts

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Abstract

This study provides the first examination of the Childhood and Adolescent Taxon Scale – Self-report (CATS-SR) measure of persistent antisocial behavior, based on childhood and adolescent history, in a European context and with female youth. The CATS-SR is evaluated in a sample of 1,134 male and female youth recruited from forensic or school settings in Portugal. The CATS-SR did not significantly differ for male and female youth seen in forensic settings, but was higher in male than female youth recruited from schools, and higher in youth seen in forensic than in school settings. The CATS-SR was positively and moderately correlated with self-report psychopathy measures that included items tapping interpersonal and affective facets of psychopathy such as callousness and impulsivity. It also correlated as expected with age of first criminal contact, crime seriousness, conduct disorder diagnosis, drug use and having unprotected sex. The findings suggest that the CATS-SR has discriminant, convergent and criterion-related validity, and could therefore be useful in assessments of persistent antisocial behavior and psychopathy.

Keywords: assessment; antisocial behavior; Childhood and Adolescent Taxon Scale (CATS); gender; psychopathy; validation

Introduction

Psychopathy is an extremely important concept in forensic and correctional psychology. As described by Cleckley (1941/1988) and later operationalized by Hare (1991, 2003), psychopathic traits include callous-unemotional traits such as a lack of empathy for others, willingness to exploit others, lack of remorse or guilt, and restricted emotional expression, as well as antisocial and unstable lifestyle traits such as impulsivity, irresponsibility, and frequent delinquent and criminal behavior. Psychopathy is associated with a wide range of negative outcomes, including institutional behavior problems, probation or parole violations, recidivism, future violence, and poorer treatment outcomes (Seto & Barbaree, 1999; Walters, 2003; Walters, Knight, Grann, & Dahle, 2008). The best known and most widely used clinical measure of psychopathy is the Psychopathy Checklist-Revised (PCL-R; Hare, 2003), a 20-item checklist completed by clinicians or other evaluators.

Psychopathy does not appear spontaneously in adulthood. Indeed, PCL-R ratings are based on knowledge of traits and behaviors over the person's lifetime (Hare, 2003). Callous-unemotional traits play an important role in psychopathy and in the development and prediction of delinquency. For example, in their review, Frick et al. (2008) noted that callous-unemotional traits are high in a subgroup of delinquent youth, remain relatively stable through childhood and adolescence, and are correlated with a particularly serious and stable pattern of antisocial and aggressive behavior. While some youth show declines in callous-unemotional traits over time, there is a consistent subgroup of youth who have been identified as having high stable patterns of callous-unemotional traits across childhood and adolescence (e.g., Baskin-Sommers, Waller, Fish, & Hyde, 2015; Fontaine McCrory, Boivin, Moffitt, & Viding, 2011).

Given the importance of psychopathic traits in understanding the etiology of persistent criminality, various measures have been developed, including the Antisocial Personality

Screening Device (Frick & Hare, 2001), the Youth Psychopathic Traits Inventory (Andershed, Kerr, Stattin, & Levander, 2002), and the Inventory of Callous-Unemotional Traits (Kimonis et al., 2008). Research has generally found these to be valid measures of psychopathic traits in youth. For instance, these measures are positively related to each other (e.g., Andershed, Hodgins, & Tengstrom, 2007; Colins, Bijttebier, Broekaert, & Andershed, 2013), and with aggression (e.g., Li, Chan, Ang, & Huan, 2017; Seals, Sharp, Ha, & Michonski, 2012), and delinquency (e.g., Fritz, Ruchkin, Kopolov, & Klinteberg, 2008; Ray, Pechorro, & Gonçalves, 2016).

Childhood and Adolescent Taxon Scale

The Childhood and Adolescent Taxon Scale (CATS; Harris, Rice, & Quinsey, 1994) was developed as a proxy measure of the persistent antisocial behavior dimension of psychopathy, based on eight childhood and adolescence history items that could be obtained through self-report and reviews of clinical and other files. A potential advantage of the CATS is that it relies on historical factors that could be objectively verified, as opposed to ratings or subjective endorsements of personality and affective traits that could be less reliable or more vulnerable to socially desirable responding. This could be very useful in forensic assessments where a respondent might be less willing to admit to socially undesirable traits such as callousness and where collateral information is more readily available.

The CATS (Harris et al., 1994) items correlated positively with PCL-R (Hare, 2003) scores and can be substituted for the PCL-R in the scoring of the Violence Risk Appraisal Guide (VRAG; Harris, Rice, & Quinsey, 1993). For example, Lister (2010) examined the predictive utility and cross-cultural generalizability of VRAG (Harris et al., 2003) scores calculated using the CATS (Harris et al., 1994) with a racially diverse sample of forensic psychiatric patients ($N = 94$), demonstrating that VRAG probability estimates for recidivism did not differ depending on whether the CATS or the PCL-R (Hare, 2003) was used as the

index of psychopathy. In addition, the CATS showed good concurrent validity with the PCL-R, and it was the only risk assessment measure used that able to predict the length of time before participants were approved for transfer to a less restrictive setting.

The CATS items could also distinguish a taxon (class) of individuals who could be designated as psychopaths (Harris et al., 1994), though a preponderance of studies find dimensionality for psychopathy and for life-course-persistent antisocial behavior (e.g., Edens et al., 2006; Walters, Duncan, & Mitchell-Perez, 2007). Other studies showed the CATS, including its self-report version, to have criterion-related validity in community samples of men, including studies of deception, gambling, cheating, and sexual coercion (Belmore & Quinsey, 1994; Lalumière, Chalmers, Quinsey, & Seto, 1996; Lister, 2010; Mishra, Lalumière, Morgan, & Williams, 2011; Seto, Khattar, Lalumière, & Quinsey, 1997). Taxometric analyses were conducted by Skilling, Quinsey, and Craig (2001) on a version of the Youth Version of the Psychopathy Checklist (PCL:YV; Forth, Kosson, & Hare, 2003) and a 7-item version of the CATS, both based on self-report, in a large sample of 1,111 boys drawn from a larger study of bullying, and found evidence of a taxon underlying persistent antisocial behavior.

There is still uncertainty, however, as to whether the CATS or CATS-SR has validity with females. There is limited evidence supporting its validity among a sample of female adult offenders (Folsom & Atkinson, 2007). However, no study to date has examined the validity of the CATS among female juvenile offenders. This is important as there is evidence to suggest that male and female youth differ on psychopathy more generally. For instance, Schmidt, McKinnon, Chattha, and Brownlee (2006) found that the PCL:YV (Forth et al., 2003) had weaker concurrent and predictive validity for female compared to male youth. Sevecke, Pukrop, Kosson, and Krischer (2009) reported that the factor structure of the PCL:YV (Forth et al., 2003) was different between male and female samples of youth. Due to

these gender differences, it is useful to know if the CATS-SR is a valid proxy for the antisocial behavior dimension among females. It is also not clear about cross-cultural generalizability, as there may be ethnicity or cultural factors that influence the expression of psychopathic traits. For example, there is evidence of cross-cultural differences in the performance of the PCL (see e.g., Cooke, Michie, Hart, & Clark, 2005). The CATS has yet to be examined among a sample of Portuguese youth, and there may be differences between North Americans and Europeans, paralleling prior research on psychopathy.

The Present Study

The main goal of the present study was to examine the validity of the CATS-SR in Portuguese male and female youth recruited from both forensic and school settings. It was predicted that the CATS-SR: (1) would discriminate male and female youth, and youth seen in forensic versus school settings; (2) would show convergent validity with other measures of psychopathic traits (Antisocial Process Screening Device, Youth Psychopathic Traits Inventory, Inventory of Callous-Unemotional Traits) and discriminant validity with a measure of basic empathy; and, (3) would be positively associated with criterion-related variables such as self-reported aggression, age of crime onset, and crime seriousness.

Method

Participants

The forensic sample was recruited from the eight nation-wide juvenile detention centers managed by the Portuguese Ministry of Justice. A sample of 244 males between the ages 12 and 20 ($M = 16.67$, $SD = 1.43$) and 108 females between the ages 14 and 18 ($M = 16.28$, $SD = 1.20$) voluntarily agreed to participate in the current study. Placement into juvenile detention centers is the most severe disposition that can be imposed by Portuguese courts. Seven of the detention centers are considered low to medium security, and one is considered maximum security. The maximum security facility is exclusively used for male

youths who were tried as adults. The participants were mostly convicted of having committed serious (e.g., aggravated theft, drug trafficking) and/or violent crimes (e.g., sex offenses, homicide).

The school sample was recruited from public schools of the Lisbon, Algarve, and Coimbra regions managed by the Portuguese Ministry of Education. A sample of 371 males between the ages 12 and 20 ($M = 15.97$ years, $SD = 1.70$ years) and 411 females between the ages 12 and 20 ($M = 15.77$ years, $SD = 1.73$ years) agreed to voluntarily participate in the study. In Portugal, a minimum of 12 years of education is mandatory. Some children start school at a later age (e.g., age 8) and some of them have to repeat years, which is why some of our participants were up to 20 years old.

Measures

A questionnaire was constructed to describe the socio-demographic characteristics of the participants, including participants' age, nationality, ethnic group, and highest level of schooling completed. Socioeconomic status (SES) was measured by a combination of the parent's level of education and profession, appropriate to the Portuguese context (Simões, 2000). Some questions regarding drug use and unprotected sex (i.e., sex without condom) during the last year were also included (coded from 0 = *Almost never/Never* to 4 = *Almost always/Always*) because there are government programs focusing especially on drug use and riskier sex among youths.

Official criminal data were obtained from a database provided by the Ministry of Justice. In terms of first-time offenses versus repeat offenses, participants with at least one prior conviction that were previously intervened by the Ministry of Justice were considered repeat offenders and participants with no previous convictions were considered first-time offenders; this variable was coded as a dichotomous variable (first-time offender = 0, repeat offender = 1). Crime frequency was coded as the total number of crimes of each participant.

Violent crime (e.g., sexual offenses, homicide) was coded as a dichotomous variable (non-violent = 0, violent = 1). The Sellin-Wolfgang Index of Crime Seriousness (ICS; Wolfgang, Figlio, Tracey, & Singer, 1985) guided the seriousness classification of self-reported delinquency: Level 0 consisted of no delinquency; Level 1 consisted of minor delinquency committed at home (e.g., stealing minor amounts of money); Level 2 consisted of minor delinquency outside the home including shoplifting something worth less than 5 euros, vandalism, and minor fraud (e.g. not paying bus fare); Level 3 consisted of moderately serious delinquency such as any theft more than 5 euros, gang fighting, carrying weapons, and joyriding; Level 4 consisted of serious delinquency (e.g., car theft, breaking and entering); and Level 5 consisted of having performed at least two of each of the behaviors in Level 4.

Psychopathy Measures

The Child and Adolescent Taxon Scale (CATS; Harris et al., 1994; Quinsey, Harris, Rice, & Cormier, 2006) is a rating scale developed from eight childhood and adolescent variables, most having to do with antisocial or aggressive behavior (e.g., “Childhood aggression problem”, “Arrested below the age of 16”). This scale has eight items scored either 0 (no) or 1 (yes). Higher scores mean a greater likelihood of persistent antisocial behavior into adulthood.

The Antisocial Process Screening Device (APSD; Frick & Hare, 2001) self-report version (APSD-SR; Caputo, Frick, & Brodsky, 1999) is a multidimensional 20-item measure designed to assess psychopathic traits in adolescents, modeled after PCL measures (Forth, Kosson, & Hare, 2003; Hare, 2003). Each item is scored on a 3-point scale (0 = *Never*, 1 = *Sometimes*, 2 = *Often*). The APSD-SR has been used with youth ages 11 to 18. This scale has three main factors: Callous-Unemotional, Narcissism, and Impulsivity. Higher scores are indicative of more psychopathic traits. Internal consistency has previously been reported as

.50–.61 for Callous-Unemotional, .56–.63 for Narcissism, .64–.68 for Impulsivity, and .78–.81 for the APSD-SR total (Muñoz & Frick, 2007). The Portuguese version of the APSD-SR was used (Pechorro, Maroco, Poiares, & Vieira, 2013; Pechorro, Hidalgo, Nunes, & Jiménez, 2016), which was previously validated among forensic samples of incarcerated juvenile delinquents and demonstrated adequate validity and reliability results. CFA indicated the presence of the three factors, showing marginal to good internal consistency values (α range .60–.83). The internal consistency, estimated using Cronbach's alpha (α), in the current sample was .79 for boys and .80 for girls.

The Youth Psychopathic Traits Inventory-Short (YPI-S; van Baardewijk et al., 2010) is an 18-item self-report, shorter version of the Youth Psychopathic Traits Inventory (Andershed, Kerr, Stattin, & Levander, 2002) designed to measure psychopathic traits in adolescents aged 12 and up. Each item is scored on a 4-point ordinal scale (ranging from 0 = *Does not apply at all*, to 3 = *Applies very well*). In line with the three-factor model of psychopathy (Cooke & Michie, 2001), the items of the YPI-S comprise three dimensions with six items each, namely the Grandiose-Manipulative or Interpersonal dimension, the Callous-Unemotional or Affective dimension, and the Impulsive-Irresponsible or Behavioral dimension. The YPI-S can be scored by adding the items. Higher scores indicate an increased presence of psychopathic traits. Internal consistency has previously been reported as .78-.85 for YPI-S total, .76-.81 for Grandiose-Manipulative, .66-.75 for the Callous-Unemotional, and .66-.68. for Impulsive-Irresponsible (Colins, Noom, & Vanderplasschen, 2012). The Portuguese version of the YPI-S was used (Pechorro, Andershed, Ray, Maroco, & Gonçalves, 2015; Pechorro, Ribeiro da Silva, Rijo, Gonçalves, & Andershed, 2017). This Portuguese version of the YPI-S has previously demonstrated evidence of reliability and validity among forensic samples of incarcerated juvenile delinquents, namely confirming the presence of the

three factors, which showed marginal to good internal consistency values (α range .67–.82). The internal consistency (α) in the current sample was .84 for boys and .86 for girls.

The Inventory of Callous-Unemotional Traits (ICU; Essau, Sasagawa, & Frick, 2006; Kimonis et al., 2008) is a 24-item self-report scale designed to assess callous-unemotional traits in youth derived from the callous-unemotional subscale of the APSD. Each item is scored on a four-point scale (ranging from 0= *Not at all true*, to 3= *Definitely true*). There are three factors (i.e., Callousness, Unemotional, and Uncaring) with all items also loading onto a general callous-unemotional factor. Internal consistency has previously been reported as .70 for Callousness, .64 for Unemotional, .73 for Uncaring, and .77 for the ICU total (Essau et al., 2006). The Portuguese version of the ICU was used (Pechorro, Ray, Barroso, Maroco, & Gonçalves, 2016; Pechorro, Ray, Abrunhosa, & Jesus, 2017). This Portuguese version of the ICU has previously been examined among forensic samples of incarcerated juvenile delinquents and has demonstrated evidence of being reliable and valid. The presence of the three factors was confirmed, showing acceptable model fit and strong internal consistency values (α range .86–.90). The internal consistency (α) in the current sample was .90 for boys and .87 for girls.

Criterion Measures

The Reactive-Proactive Aggression Questionnaire (RPQ; Raine et al., 2006) is a 23-item self-report measure that distinguishes between reactive and proactive aggression and is appropriate for use with youths and young adults. Each item is rated on a 3-point ordinal scale (0 = *Never*, 1 = *Sometimes*, and 2 = *Often*). Summed scores provide a measure of reactive or proactive aggression as well as total aggression. Confirmatory factor analysis identified two factors: reactive aggression and proactive aggression. Higher scores indicate higher levels of aggression. Internal consistency has previously been reported as .86 for Proactive Aggression, .84 for Reactive Aggression, and .90 for RPQ total (Raine et al., 2006).

The Portuguese version of the RPQ was used (Pechorro, Ray, Raine, Maroco, & Gonçalves, 2017; Pechorro, Kahn, Ray, Raine, & Gonçalves, 2017), which has demonstrated evidence of validity among forensic samples of incarcerated juvenile delinquents and also evidence of good internal consistency (α range .86–.90). The internal consistency (α) in the current sample was .92 for both boys and girls.

The Basic Empathy Scale (BES; Jolliffe, & Farrington, 2006) is a 20-item self-report measure designed to assess empathy in youth. The BES was developed as a concise and coherent scale with the aim of measuring two distinct factors: affective empathy and cognitive empathy. Each item is scored on a five-point ordinal scale (from 1 = *Strongly disagree* to 5 = *Strongly agree*). The BES has been used with children and youth ages 9 to 18. Scores are calculated by reverse-scoring the positively worded items and then summing the items to obtain the total score and the factors scores. Higher scores indicate an increased presence of empathic characteristics. Internal consistency has previously been reported as .85 for the Affective dimension and .79 for the Cognitive dimension (Jolliffe, & Farrington, 2006). The Portuguese validation of the BES was used (Pechorro, Ray, Salas-Wright, Maroco, & Gonçalves, 2015; Pechorro, Kahn, Gonçalves, & Ray, in press), which has demonstrated evidence of reliability and validity among forensic samples of incarcerated juvenile delinquents. The presence of the affective and cognitive empathy factors was confirmed, which showed good internal consistency values (α range .87–.91). The internal consistency (α) in the current study was .91 for boys and .89 for girls.

A Conduct Disorder scale was also created based on the 15 criteria used to assess Conduct Disorder (see e.g., Skilling, Quinsey, & Craig, 2001). The 15 dichotomous items (coded 0 = *No*; 1 = *Yes*) were summed to obtain a total score, so higher scores indicate a higher number of conduct disorder symptoms. The internal consistency was .90 for boys and .88 for girls.

In the Portuguese context, there are options to divert youth from criminal justice (e.g., if the youth agrees to attend school and community service then charges are dropped and there is no conviction on his record). Usually this is reserved for first-time offenders. A youth who committed serious violent offenses would be prosecuted in a Family and Youth Court and would not be offered diversion. If the youth is 16 or older he/she would be tried as an adult.

Procedure

Authorization to validate the CATS among Portuguese youth was obtained from the authors of the scale (Harris et al., 1994). The preliminary translation of the CATS into the European Portuguese language commonly spoken in Portugal by adolescents and young adults was conducted by the authors of this article. During the translation and retroversion of the CATS appropriate procedures (e.g., avoiding item bias) were followed. The questionnaire was then independently back-translated into English by a native English speaker with considerable professional experience in translating psychology-related scientific texts. The preliminary and the back-translated items were compared for non-equivalence of meaning and items were revised when any discrepancies in meaning were detected, until no semantic differences were identified between the English version and the Portuguese version.

Authorization to assess youths in the forensic context was obtained from the ethics committee of the Ministry of Justice. The detainees, from the eight existing Portuguese Juvenile Detention Centers, were informed about the nature of the study and asked to voluntarily participate. The participation rate was approximately 92%. The measures were administered by means of individual face-to-face interviews conducted by the first author in each juvenile facility. Institutional files were also used to complement the information obtained (e.g., previous psychiatric diagnosis). The first author and a colleague made the Conduct Disorder (CD) diagnosis according to DSM-5 criteria, by consensus based on file

reviews (American Psychiatric Association, 2013). Sometimes the files also mentioned a CD diagnosis made by the youth's psychiatrist, which may have been made using previous DSM criteria.

Authorization to assess youths in the school context was obtained from the ethics committee of the Portuguese Ministry of Education and parental permission was obtained for all minors (below age 18). Informed consent was obtained from participants who were 18 years of age or older. The participants were informed about the nature of the study and asked to voluntarily participate. Interviews in the school context were also conducted by the first author. The participation rate was approximately 84%. No members of the research team had a previous relationship to the potential participants.

Analytic Plan

The data were analyzed using SPSS v24 (IBM Corp., 2016). ANOVA was used to examine differences between the male group and female group, including partial Eta squared (η_p^2) effect size and power (Leech, Barrett, & Morgan, 2015). Cronbach's alpha (α) was considered adequate if above .70 and good if above .80 (Kaplan & Saccuzzo, 2013; Nunnally & Bernstein, 1994). A principal components analysis (PCA) was used to examine explained variance. Pearson correlations were used to analyze associations between scale variables and Spearman correlations were used to analyze associations between ordinal variables and scale variables (Leech et al., 2015) in order to evaluate criterion-related validity. Correlations were considered low if below .20, moderate if between .20 and .50, and high if above .50 (Ferguson, 2009). Fisher z-tests (2-tailed) were used to analyze potential differences in terms of the strength of the correlations. Results were considered significant if $p \leq .05$. Receiver operating characteristic (ROC) area (area under the curve – AUC) was used to determine the ability of the CATS to discriminate between the school sample and the forensic sample.

Results

In Table 1, item prevalence (i.e., percentage of positively endorsed items), internal consistency (i.e., Cronbach's alpha) and explained variance (percentage) are reported among the different samples. Regarding the explained variance using PCA, a one-factor component was forced, with the Kaiser–Myer–Olkin measure of sampling adequacy obtaining values always above .5 and the Bartlett Test of Sphericity being always significant ($p \leq .001$). The values obtained can be considered adequate.

[Insert Table 1]

Regarding the known-groups validity, the interaction between gender (male, female) and sample-type (school, forensic) on CATS-SR scores was tested, and no statistically significant interaction was found ($F = 1.556$, $p = .21$, $\eta_p^2 = .00$, power = .24). Post-hoc comparisons revealed that males from the forensic sample ($M = 6.03$, $SD = 1.37$) scored significantly higher in terms of CATS-SR scores than males from the school sample ($M = 1.55$, $SD = 1.63$, Mean difference = 4.48, $p \leq .001$), and females from the school sample ($M = 1.0$, $SD = 1.27$, Mean difference = 5.03, $p \leq .001$). However, no differences were found between males and females from the forensic sample ($M = 5.78$, $SD = 1.33$, Mean difference = .25, $p = .60$). The female forensic sample also scored higher than males from the school sample (Mean difference = 4.23, $p \leq .001$) and females from the school sample (Mean difference = 4.78, $p \leq .001$). Finally, males from the school sample scored higher than females from the school sample (Mean difference = .55, $p \leq .001$).

ROC area was used with the objective of determining the ability of the CATS-SR scores to discriminate between the samples. The results obtained for the male (AUC = .96, 95% CI = .95-.98, $p \leq .001$) and female (AUC = .98, 95% CI = .97-.99, $p \leq .001$) samples were considered very good because high (i.e., >.90) statistically significant AUC values were obtained. The sensitivity and specificity parameters of the ROC were used to analyze the classification efficiency of different possible cutoff scores (see Table 2). The chosen optimal

cutoff scores were 4 for males and 3 for females because these values presented a good balance between sensitivity (i.e., true positive rate) and specificity (i.e., true negative rate). However, it is important to mention that caution is advised when implementing measures such as the CATS and its corresponding cutoffs scores in forensic settings, particularly for female youth.

[Insert Table 2]

Table 3 demonstrates the convergent validity of the CATS-SR with the APSD-SR, the YPI-S, the ICU and the RPQ through mostly moderate, positive, and significant correlations across the samples. The CATS-SR had null or negative correlations with the BES, supporting its divergent validity. Table 3 also presents the criterion-related validity of the CATS-SR with variables such as alcohol use, drug use, age of crime onset and first problem with the law, crime seriousness and CD symptoms. These correlations were mostly positive and statistically significant. Fisher z-tests indicated that, among the forensic sample, significant differences were found in terms of the strength of the correlations between the genders regarding cannabis use and CD symptoms. Among the school sample, gender differences were observed for age of first problem with the law and crime seriousness, with correlations for males being larger.

[Insert Table 3]

Table 4 shows the point-biserial correlations of the several psychopathy measures with CD diagnosis. Fisher z-tests revealed that the correlation between CATS-SR score and CD diagnosis was significantly larger than the correlations obtained for other psychopathy measures in the male forensic sample. There were no significant differences in correlation magnitudes for the female forensic sample, or between the male and female forensic sample.

[Insert Table 4]

Discussion

In the current study, the first examination of the validity of the CATS-SR among Portuguese youth across gender and setting is provided. In general, the results suggest that the CATS-SR is a reliable and valid measure for the assessment of the persistent antisocial behavior component of psychopathy. Internal consistency values were adequate to good (Kaplan & Saccuzzo, 2013). However, the amount of explained variance using PCA to force a one-factor component can be described as modest (Nunnally & Bernstein, 1994). This was not entirely unexpected considering that the CATS was not originally developed using modern psychometric methods.

Using ROC analysis, the ability of the CATS-SR to discriminate between the school sample and the forensic sample was assessed, and cutoff scores among males and females were identified. The results of these analyses suggest that the CATS-SR can be a useful tool for distinguishing youth with a persistent antisocial behavior pattern. The ROC analysis identified cutoff scores for males and females on the CATS-SR of 4 and 3, respectively. While a cutoff of 4 for the males is consistent with prior research (Quinsey et al., 2006), the lower cutoff value for females lacks precedent and, therefore, needs to be further evaluated among female samples. Nonetheless, these results suggest that the CATS-SR could have utility for both male and female youth.

For the sample as a whole, the CATS-SR showed convergent and criterion-related validity, correlating positively and significantly with self-report psychopathy measures, and correlating as expected with indicators such as age of criminal onset, drug use, and engaging in unprotected sex. The strength of the correlations was mostly similar among males and females, with the exception of cannabis use and CD symptoms among the forensic sample, and age of first problem with the law and crime seriousness among the school sample. Male youth obtained significantly larger correlations than female youth for these variables. No significant correlations were found with the repeat offenses, crime frequency, and violent

crime variables based on official criminal data. This was unexpected and further investigation is needed. The CATS-SR produced the largest correlation of all the self-report psychopathy measures with a diagnosis of Conduct Disorder, particularly among males. This again suggests that the CATS-SR may be a useful tool for distinguishing among antisocial youth with and without psychopathic traits.

Limitations and Future Directions

The current study findings should be considered in light of several limitations. First, self-report measures were used and, thus, the findings could be susceptible to socially desirable responding or other response biases. However, self-report bias was mitigated by the fact that institutional files were available to corroborate some data. Moreover, participants were assured that data were collected for research purposes only and would not have any effect on their standard-of-care.

The clinical utility of the CATS-SR would be strengthened by examining the validities of the measure in more realistic conditions, which would require the respondent to know that their answers might affect decisions made about them with regard to risk assessment, treatment, or management. Reassuringly, Walters (2006) showed that self-report measures of relevant domains can significantly predict recidivism outcomes and can be comparable to clinician-completed measures.

The samples of girls were sufficient for our statistical analyses, but not as large as the samples of boys. Given the differences observed here, as well as in previous studies, there is an important need for further research examining gender similarities and differences in both self-report and evaluator ratings of psychopathy.

Data were cross-sectional, not longitudinal. It would be very interesting to see how the psychopathy measures compare in their predictive validity, for example, regarding subsequent offending. Since permission to collect recidivism data for the forensic samples

was obtained, it will be possible to compare psychopathy measures in this regard after sufficient time has passed. School sample data were collected anonymously and thus it is not possible to examine whether psychopathy measures can predict the onset of offending in terms of official criminal record in school youth.

Conclusions

Taken together, these results suggest the self-report version of the CATS, the CATS-SR, has utility as a clinical and research measure to screen for persistent antisocial behavior associated with psychopathy when PCL measures are not available (cf. the VRAG; Bolton, 2006; Glover et al., 2002; Quinsey et al., 2006) or cannot be scored. The CATS-SR has the advantage over other psychopathy measures examined here in being shorter and relying on observable events (e.g., childhood aggression, arrested before age 16) that can be more easily corroborated than judgments about traits such as callousness or impulsivity by file review or by interviewing parents/caregivers. However, it is important to point out that the CATS-SR should only be used as a screening tool, to identify those in need of further, more in-depth psychopathy assessment in forensic settings. Given concerns regarding the stigma associated with the psychopathy label (e.g., Edens & Vincent, 2008), it is necessary to use caution when implementing such measures in forensic settings.

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Table 1

Item prevalence, internal consistency and explained variance of the CATS-SR

	Forensic Male	Forensic Female	School Male	School Female
1. Elementary school maladjustment	94.3%	94.4%	22.9%	17.5%
2. Teenage alcohol problem	67.6%	61.1%	24.8%	20.2%
3. Childhood aggression problem	88.1%	87.0%	37.7%	15.3%
4. Childhood behavior problem before age 15	93.4%	98.1%	14.0%	6.6%
5. Ever suspended or expelled from school	88.9%	75.9%	14.0%	3.2%
6. Arrested under the age of 16	86.5%	81.5%	4.3%	1.9%
7. Parental alcoholism	24.2%	24.1%	10.0%	6.8%
8. Lived with both biological parents age 16 ^R	59.8%	55.6%	27.2%	29.7%
Cronbach's α	.73	.68	.82	.84
Variance	23.9%	24.6%	30.7%	27.9%

Note. CATS-SR = Childhood and Adolescent Taxon Scale – Self-Report; R = Reverse scored; Cronbach's α = Cronbach's Alpha calculated using a correlation matrix with items defined as categorical variables

Table 2

Sensitivity and specificity of CATS-SR scores

	Male Sensitivity	Male Specificity	Female Sensitivity	Female Specificity
0	.00	1.0	.00	1.0
1	.59	1.0	.77	1.0
2	.78	.97	.86	.98
3	.87	.95	.93	.94
4	.93	.89	.98	.85
5	.98	.73	.99	.59
6	.99	.40	1.0	.35
7	1.0	.11	1.0	.06
8	1.0	.00	1.0	.00

Note. CATS-SR = Childhood and Adolescent Taxon Scale – Self-Report

Table 3

Convergent validity, discriminant validity and criterion-related validity of the CATS-SR

	CATS Forensic Male	CATS Forensic Female	CATS School Male	CATS School Female
APSD-SR	.25***	.15	.36***	.39***
YPI-S	.26***	.20*	.40***	.31***
ICU	.23***	.15	.27***	.31***
RPQ	.34***	.30**	.40***	.38***
BES	-.04	.09	.07	.04
Cannabis	<u>.48***</u>	<u>.28**</u>	.47***	.40***
Cocaine/Heroin	.19*	.16*	.26***	.19***
Unprotected sex	.18*	.03	.41***	.33***
ACO	-.30***	-.29**	-.26*	-.19
AFPL	-.28***	-.27**	<u>-.31*</u>	<u>-.12</u>
AFDJDC	-.07	-.21*	--	--
Repeat offenses	.10	.11	--	--
Crime frequency	.10	.06	--	--
Violent crime	.11	.15	--	--
ICS	.37***	.41***	<u>.62***</u>	<u>.46***</u>
CD symptoms	<u>.59***</u>	<u>.38***</u>	.69***	.65***

Note: CATS-SR = Childhood and Adolescent Taxon Scale – Self-Report; APSD-SR = Antisocial Process Screening Device-Self-Report; YPI-S = Youth Psychopathic Traits Inventory – Short version; ICU = Inventory of Callous-Unemotional Traits; RPQ = Reactive-Proactive Aggression Questionnaire; BES = Basic Empathy Scale; ACO = Age of crime onset; AFPL = Age of first problem with the law; AFDJDC = Age of first detention in a juvenile detention center; ICS = Index of Crime Seriousness; CD = Conduct Disorder; -- = non-available

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

Underlined values were statistically significant between the males and females ($p < .05$) using Fisher z-tests

Table 4

Point-biserial correlations of self-reported psychopathy measures with CD diagnosis

	CD Male Forensic	CD Female Forensic
CATS-SR	<u>.47***</u>	.35***
APSD-SR	.27***	.20*
YPI-S	.22**	.28**
ICU	.21**	.20*

Note. CATS-SR = Childhood and Adolescent Taxon Scale – Self-Report; APSD-SR = Antisocial Process Screening Device-Self-Report; YPI-S = Youth Psychopathic Traits Inventory – Short version; ICU = Inventory of Callous-Unemotional Traits

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

Underlined values were statistically significant ($p < .05$) using Fisher z-tests

3. DISCUSSÃO GERAL

A presente tese enquadra o projeto de investigação desenvolvido em torno da reincidência criminal em delinquentes juvenis a cumprir medida tutelar-educativa institucional em Centro Educativo e das suas associações ao constructo da psicopatia. A investigação das temáticas da reincidência criminal e da psicopatia em jovens tem tido um notório crescimento a nível internacional, especialmente nos Estados Unidos da América, no Canadá e nos países do norte da Europa (e.g., Reino Unido, Suécia), sendo contudo ainda escassa nos países do sul da Europa, particularmente no contexto português. Conforme já foi mencionado, países como Portugal Espanha, Itália e Grécia, são referidos em obras da especialidade (e.g., Zara & Farrington, 2016) como não tendo investigação prospetiva de relevo sobre reincidência criminal por motivos diversos (e.g., falta de financiamento, ausência de investigadores experientes na área). Ou seja, é reconhecida a importância e a necessidade de investigação em Portugal nesta área, que estabeleça as bases para uma prática psicológica fiável e que tenha com potencial para ser publicada em periódicos internacionais de qualidade reconhecida de forma a disponibilizar os resultados à comunidade científica internacional alargada e às instituições que em Portugal lidam com questões de delinquência juvenil.

Na sequência da revisão da literatura fundamental sobre os principais tópicos da presente investigação, nomeadamente a reincidência criminal e traços psicopáticos, a adaptação do *Youth Psychopathic Traits Inventory – Triarchic* e a validação da *Childhood and Adolescent Taxon Scale*, foram colocadas as seguintes questões de investigação, respetivamente: I) Qual é a taxa da reincidência ao longo do período de seguimento de dois a três anos após a saída dos Centros Educativos? Qual a melhor medida de traços psicopáticos na predição da reincidência depois de controladas variáveis moderadoras como a história criminal e a etnicidade?; II) Será que esta medida de traços psicopáticos triárquicos (YPI-Tri) tem a esperada estrutura de três

fatores nas amostras forense e escolar? Será que demonstra invariância de medida relativamente ao género dos participantes e ao tipo de amostra?; e III) Será que esta medida atuarial (CATS) tem capacidade de diferenciar rapazes e raparigas provenientes de contexto forense e escolar? Estará positivamente correlacionada em termos de validade de critério com variáveis como idade de início na atividade criminal, gravidade de crimes cometidos e agressividade?

Tendo por base os objetivos da investigação e a revisão bibliográfica foram realizados estudos específicos que resultaram em cinco artigos e um capítulo de livro, partindo-se de hipóteses que foram analisadas e discutidas através dos resultados de cada estudo. Seguidamente apresenta-se a discussão geral integrada dos resultados obtidos nos estudos efetuados.

Reincidência criminal e traços psicopáticos

O primeiro conjunto de estudos, refletido em dois artigos, *A prospective study on self-reported psychopathy and criminal recidivism among incarcerated male juvenile offenders* e *The utility of self-reported psychopathic traits in predicting recidivism among a sample of incarcerated female youths*, teve como objetivo analisar a taxa de reincidência criminal prospetiva em jovens dos dois sexos que cumpriam medida tutelar em Centros Educativos do Ministério da Justiça, após a saída destes e durante um período até três anos. Pretendeu-se, ainda, analisar as possíveis relações entre reincidência e traços psicopáticos de personalidade. Adicionalmente, compararam-se três medidas de autorresposta de psicopatía no que diz respeito à validade preditiva da reincidência geral e violenta, após controlo de possíveis variáveis moderadoras (e.g., frequência de crimes, etnicidade). Tanto quanto é do nosso conhecimento este é o primeiro estudo publicado em revistas internacionais com revisão de pares e fator de impacto a analisar prospectivamente a reincidência criminal em jovens portugueses.

Na fase preliminar do estudo compararam-se as características sociodemográficas entre os grupos de jovens reincidentes e não-reincidentes, não se encontrando diferenças estatisticamente significativas entre os grupos na amostra do sexo masculino. Na amostra do sexo feminino registou-se uma diferença estatisticamente significativa atendendo à etnia, com o grupo de reincidentes a apresentar uma menor proporção de raparigas de etnia branca europeia (i.e., uma maior proporção de raparigas pertencentes a minorias étnicas). Este resultado é consistente com a investigação prévia que evidenciou que a etnicidade pode ser um preditor potente da reincidência (e.g., Piquero, Jennings, Diamond, & Reingle, 2015), especialmente quando está associada a estratos socioeconómicos mais baixos.

Relativamente às variáveis criminais, a amostra de rapazes registou diferenças entre reincidentes e não-reincidentes relativamente à idade de início da atividade criminal, idade de primeiro contacto com a lei, idade de primeira detenção (mais baixas para os reincidentes), frequência de crimes (mais elevada para os reincidentes), sintomas de perturbação do comportamento (mais elevados para os reincidentes) e consumo de álcool e de cannabis (mais elevados para os reincidentes). A questão da idade de início na atividade criminal é particularmente interessante e consistente com a literatura (DeLisi, Neppl, Lohman, Vaughn, & Shook, 2013; Piquero, Hawkins, & Kazemian, 2012). Nas restantes variáveis (e.g., gravidade de crimes cometidos) não se encontraram diferenças estatisticamente significativas. A amostra de raparigas não revelou diferenças a nível das variáveis criminais quando se compararam reincidentes e não-reincidentes, o que não é convergente com os resultados da investigação prévia (e.g., Cottle et al., 2001). Tal pode dever-se a uma maior homogeneidade, não antecipada, dos dois grupos, combinada ou não com falta de potência estatística devida ao menor tamanho da amostra.

No que respeita às taxas de reincidência geral, na amostra de rapazes obteve-se um valor acumulado de 46.8% (calculado excluindo todos os jovens que já haviam reincidido previamente) no período de seguimento a três anos após saída dos Centros Educativos. O valor obtido para o primeiro ano foi de 37.9%, que é consistente com investigações na área que referem valores de recondenações entre 33% e 44% (e.g., Tollett, 1987; VDJJ, 2005), ficando longe dos resultados das pesquisas que registam valores mais extremos quando a medida aplicada é o internamento e o seguimento é plurianual (e.g., 62.8% segundo Capdevila et al., 2005; 75% a 80 % segundo Brame, Mulvey, Schubert, & Piquero, 2018). Para o segundo ano o valor foi de 18.2% e para o terceiro ano de 7.5%. Como seria de esperar, alguns jovens reincidiram repetidas vezes dentro do mesmo ano de seguimento e no período de três anos de seguimento. De salientar que as comparações diretas dos valores de reincidência juvenil em Portugal com outros países se afiguram difíceis devido aos enquadramentos jurídicos diferentes, a formas diferentes de medir a reincidência, a metodologias de intervenção diferentes no decurso das medidas e a amostras com características diferentes (Farrington, Ohlin, & Wilson, 1986; Killias, Villettaz, & Zoder, 2006).

Para a reincidência violenta o valor acumulado foi de 23.3% (calculado excluindo todos os jovens que já haviam reincidido com violência previamente) no período de seguimento a três anos. No primeiro ano obteve-se um valor de 20.3%, para o segundo ano de 8.4% e para o terceiro ano de 2%. Estes valores de reincidência violenta, mais baixos que os da reincidência geral, já eram esperados dado que a reincidência em crimes violentos tende a ocorrer com menos frequência (VDJJ, 2005). A reincidência em crimes sexuais (considerados como uma subcategoria dos crimes violentos) registou um valor acumulado de 12.1%, também consistente com a literatura

da especialidade que refere valores entre 7% e 13% (ver Lobanov-Rostovsky, 2015, para uma revisão detalhada).

A taxa de reincidência global na amostra de raparigas registou um valor acumulado de 26.3% (calculado excluindo todas as jovens que já haviam reincidido previamente) ao longo dos dois anos de seguimento, com algumas jovens a reincidirem várias vezes após a saída dos Centros Educativos. O valor obtido para o primeiro ano foi de 18.4% e para o segundo ano foi de 13.2%. Relativamente à reincidência violenta, o valor acumulado a dois anos foi de 9.2% (calculado excluindo todas as jovens que já haviam reincidido com violência previamente). O valor de reincidência violenta relativo ao primeiro ano foi de 7.9% e o relativo ao segundo ano foi de 2.6%. Estes dados são inferiores aos obtidos na amostra de rapazes, o que é também consistente com a literatura internacional (e.g., Capdevila et al., 2005; VDJJ, 2005; Zara & Farrington, 2016), sendo de salientar que as raparigas tiveram um seguimento de apenas dois anos.

Os resultados obtidos no que diz respeito à reincidência, tanto na amostra de rapazes como na de raparigas, indicam que as tendências relativas à reincidência em geral e à reincidência violenta são claramente de decréscimo quando se adota uma metodologia de segmentação e comparação anual (i.e., valores não-acumulados). O primeiro ano após a saída do Centro Educativo revela-se crítico pois é durante esse período que a maioria da reincidência ocorre tanto em rapazes como em raparigas. Estes dados fundamentam cientificamente a necessidade de um período de supervisão intensiva (Artigo 158.º -A) ou de um acompanhamento pós-internamento (Artigo 158.º -B) tal como tipificados na recente alteração à lei tutelar-educativa (Lei n.º 4/2015, de 15/01). Todavia, tanto quanto é do nosso conhecimento, estes procedimentos ainda não foram implementados na prática de forma rotineira a nível nacional pelos serviços de reinserção da DGRSP.

Comparando a gravidade e a violência dos crimes cometidos ao longo dos anos de seguimento com os valores retrospectivos verifica-se também uma tendência de decréscimo. Isto é, os rapazes e raparigas que reincidiram tenderam a fazê-lo cometendo crimes substancialmente menos graves e violentos. Todavia, a nossa investigação não permite afirmar que esta tendência resulta especificamente da intervenção feita no decurso de internamento em Centro Educativo ou de um processo natural de desistência ou como se compara com outros tipos de medidas tipificadas na Lei Tutelar-Educativa que não foram analisadas na presente investigação (e.g., acompanhamento educativo, imposição de obrigações; ver Lei n.º 166/99, de 14/09, alterada pela Lei n.º 4/2015, de 15/01).

Analisando a validade preditiva através de AUCs, na amostra de rapazes, as três medidas de autorresposta de psicopatia estavam significativamente associadas com a reincidência em geral, com dimensões de efeito de pequenas a médias. As diferentes dimensões das medidas de uma forma geral também tiveram capacidade preditiva. O APSD-SR total obteve o melhor desempenho com uma dimensão de efeito média na reincidência geral a três anos. O facto de o APSD-SR total superar o YPI total não é surpreendente considerando que o YPI foi originalmente concebido para ser utilizado na investigação com amostras comunitárias e não com amostras forenses (Andershed et al., 2002; Patrick, Fowles, & Krueger, 2009). Todavia, a dimensão comportamental do YPI destacou-se pelo seu desempenho positivo face às restantes.

Os resultados por AUC da reincidência violenta a um ano e a três anos revelaram que o APSD-SR total se destacou pela positiva obtendo resultados estatisticamente significativos. O YPI total surge a seguir, registando resultados significativos apenas na predição da reincidência violenta a três anos.

Focando particularmente nas dimensões das medidas, destacaram-se a dimensão de traços calosos do APSD-SR a um ano e a três anos, e a dimensão interpessoal do YPI a três anos. Dado que o APSD-SR foi diretamente derivado da PCL-R (Hare, 2003), este resultado era expectável (Brandt, Kennedy, Patrick, & Curtin, 1997; Murrie, Cornell, Kaplan, McConville, & Levy-Elkon, 2004; Rice & Harris, 2013). As limitações do YPI como método alternativo de avaliar a psicopatia em amostras forenses já haviam sido demonstradas (Dolan & Rennie, 2006). A CATS-SR, contrariamente ao esperado, não registou um valor estatisticamente significativo, tendo sido obtida uma dimensão de efeito pequena (Rice & Harris, 2005).

Nas análises multivariadas na amostra de rapazes, com recurso a modelos de regressão logística, considerando a reincidência geral a um ano e a três anos e a reincidência violenta a três anos, nenhuma das medidas obteve resultados estatisticamente significativos após o controlo da frequência de crimes retrospectivos. Considerando o período de um ano, os resultados da CATS-SR estavam significativamente associados à reincidência geral, mas não à reincidência violenta, após se ter controlado o efeito da frequência de crimes retrospectivos. Desta forma, a CATS-SR foi o instrumento que demonstrou maior potencial de utilidade prática quando se considerou o efeito moderador da história criminal prévia. Todavia, mais investigação é necessária para analisar a utilidade da CATS-SR.

Em termos das dimensões das medidas, os resultados obtidos foram diversos: a dimensão comportamental dos YPI obteve melhores resultados na capacidade de prever significativamente a reincidência geral a um ano e a três anos, enquanto a dimensão interpessoal foi capaz de prever significativamente a reincidência violenta a três anos. Tais resultados são em parte consistentes com estudos prévios (e.g., Colins et al., 2012; Vincent et al., 2008) que demonstraram que a dimensão

comportamental/estilo de vida da psicopatia obtém melhor desempenho que as dimensões afetiva e interpessoal nas associações com comportamentos antissociais. Por exemplo, na versão revista do Violence Risk Appraisal Guide que é utilizado na avaliação de risco de violência futura, apenas a dimensão antissocial da PCL-R é usada como um dos itens (Rice, Harris, Grant, & Lang, 2013). Todavia, no nosso estudo a dimensão interpessoal do YPI conseguiu prever significativamente a reincidência violenta a três anos apesar de não conter itens antissociais explícitos (Walters, 2015). Por isso, também este resultado requer mais investigação no futuro de forma a ser confirmado ou infirmado.

No APSD-SR nenhuma das dimensões foi capaz de prever significativamente a reincidência após o controle das variáveis criminais. Os resultados obtidos não sustentam que a dimensão de traços calosos do APSD-SR é especialmente relevante na identificação dos ofensores juvenis mais graves e na predição da reincidência (Frick & White, 2008). Outras investigações também colocaram em questão a potencial utilidade dos traços calosos após se controlar a história criminal (e.g., Lahey, 2014; Pechorro, Nunes, Jimenez, & Hidalgo, 2015). Tal tendência também se pode revelar na área clínica porque o novo especificador Com Emoções Pró-sociais Limitadas do diagnóstico de Perturbação do Comportamento (APA, 2013) foi em parte derivado dos itens da dimensão de traços calosos/não-emocionais do APSD.

Os modelos de regressão logística na amostra de raparigas, considerando o período de seguimento a um ano e a dois anos, evidenciaram que nem o APSD-SR total nem o YPI total estavam estatisticamente associados à reincidência geral ou à reincidência violenta após o controle das variáveis etnicidade e frequência de crimes. O mesmo se passou relativamente às dimensões do APSD-SR e do YPI, apesar de a dimensão interpessoal do YPI quase ter atingido um nível significativo na reincidência

violenta a um ano e a dois anos. Desta forma, a presente investigação é consistente com as pesquisas prévias que sugerem que a utilidade destas medidas é muito limitada na avaliação de risco em jovens delinquentes do sexo feminino (e.g., Colins et al., 2017).

Desenvolvimento do YPI-Tri-S

O segundo conjunto de estudos, refletido no capítulo de livro *The Triarchic Model of Psychopathy among incarcerated male youths: A psychometric study* e nos artigos *Triarchic Model of Psychopathy: A brief measure among detained female youths* e *A brief measure of the Triarchic Model of Psychopathy among community youths: Psychometrics and measurement invariance*, pretendeu examinar as propriedades psicométricas do YPI-Tri recorrendo a amostras forenses e a amostras escolares da população geral de jovens do sexo masculino e do sexo feminino. As amostras forenses foram constituídas por rapazes e raparigas a cumprir medida tutelar institucional nos Centros Educativos do Ministério da Justiça. As amostras escolares integraram rapazes e raparigas que frequentavam escolas do ensino público em diversas regiões do país. Tanto quanto é do nosso conhecimento, este é o primeiro estudo sobre o YPI-Tri em Portugal. Conforme veremos de seguida, as análises das propriedades psicométricas efetuadas acabaram por levar ao desenvolvimento de uma versão breve deste instrumento, que foi designada por YPI-Tri-S.

A amostra forense masculina foi inicialmente utilizada para avaliar as propriedades psicométricas do YPI-Tri. Os procedimentos estatísticos de análise de componentes principais e de análise fatorial confirmatória revelaram a presença da esperada estrutura tridimensional composta pelas dimensões de ousadia, maldade e desinibição. Todavia, uma parte substancial dos itens teve de ser removida devido a saturações baixas, levando à criação de uma versão breve do instrumento, com sete itens

por fator, que se designou como YPI-Tri-S. Posteriormente, utilizando-se a amostra forense feminina e a amostra escolar masculina e feminina, a estrutura trifatorial foi replicada, tendo-se também demonstrado invariância de medida fraca (ou métrica, em que há equivalência das cargas fatoriais nas diversas amostras) e forte (ou escalar, em que os interceptos dos itens também são equivalentes nas diversas amostras) com a amostra forense masculina. As correlações entre a pontuação total do YPI-Tri-S e os seus fatores nas diferentes amostras variaram entre moderadas a fortes, todas estatisticamente significativas, evidenciando validade de constructo.

A consistência interna, analisada através do coeficiente alfa de Cronbach e coeficiente ómega nas amostras forenses e escolares, masculinas e femininas, obteve valores que variaram entre adequados e bons. Valores satisfatórios foram também obtidos nas diferentes amostras relativamente às médias de correlações inter-itens e às correlações item-total corrigidas. Tal permite reforçar que apesar do número mais reduzido de itens que compõem o YPI-Tri-S este é uma medida cujas pontuações são fiáveis.

A validade convergente do YPI-Tri-S nas diferentes amostras, analisada com recurso a outros instrumentos de traços psicopáticos (e.g., APSD-SR), de agressividade (e.g., RPQ) e de impulsividade (e.g., BIS-11), evidenciou correlações que variaram entre moderadas e altas, estatisticamente significativas, tal como era esperado. As correlações mais elevadas foram obtidas entre o YPI original e sua versão curta, o que era expectável atendendo que partilham o mesmo *pool* de itens. A validade divergente foi efetuada com recurso a medidas de empatia (e.g., BES) e de ansiedade social (e.g., SAS-A), registando na generalidade correlações baixas não significativas, algumas das quais negativas. De salientar a exceção com a dimensão de empatia cognitiva, que

registrou correlações positivas baixas mas estatisticamente significativas na amostra forense masculina.

A validade de critério nas diferentes amostras foi averiguada recorrendo a variáveis de tipo criminais (e.g., idade de início na atividade criminal, gravidade de crimes cometidos), sintomas de perturbação de comportamento e consumo de drogas (e.g., cannabis, cocaína) e álcool, obtendo-se de uma forma geral correlações moderadas a altas estatisticamente significativa conforme esperado. Nalguns casos essas correlações foram positivas (e.g., diagnóstico de perturbação de comportamento), noutros foram negativas (e.g., idade dos primeiros problemas com a lei).

A validade de grupos conhecidos foi efetuada comparando as pontuações totais do YPI-Tri-S e os seus fatores nas diferentes amostras. A amostra forense masculina obteve as pontuações mais elevadas que a amostra escolar masculina, que por sua vez obteve pontuações superiores às da amostra escolar feminina. Relativamente à amostra forense feminina não se chegaram a fazer comparações com as restantes amostras, limitação que deverá ser colmatada em estudos futuros recorrendo a amostras forenses femininas de maior dimensão.

Validação da CATS

O artigo publicado com o título *The Childhood and Adolescent Taxon Scale – Self-Report: Validity among male and female youths from forensic and school contexts* resultou do estudo que tinha como objetivo avaliar algumas propriedades psicométricas da CATS-SR. Neste estudo também se recorreu a amostras forenses de rapazes e raparigas dos Centros Educativos do Ministério da Justiça e a amostras escolares de rapazes e raparigas provenientes de estabelecimentos de ensino público. Tanto quanto é do nosso conhecimento este estudo é o primeiro na Europa, em geral, e em Portugal, em

particular, a analisar a validade e a fiabilidade da CATS-SR tendo em conta o sexo dos participantes e o contexto de proveniência.

A análise da consistência interna, através do coeficiente alfa de Cronbach, revelou na generalidade valores que variam entre satisfatórios (i.e., $>.70$) e bons (i.e., $>.80$). A exceção surgiu na amostra forense feminina, em que a CATS-SR obteve um valor marginalmente aceitável (.68), mas que não coloca em causa a sua utilização para fins de investigação. O facto de a CATS-SR ser uma medida atuarial e ainda assim apresentar valores adequados de precisão constitui um aspeto positivo a salientar.

Analisando a validade ao nível de grupos conhecidos, as comparações das pontuações da CATS-SR entre as várias amostras revelaram que os jovens do sexo masculino e do sexo feminino da amostra forense obtiveram resultados significativamente mais elevados que os jovens da amostra escolar conforme era esperado. Na amostra forense não foram encontradas diferenças entre rapazes e raparigas, contrariamente ao que seria expectável, sendo que tais resultados inesperados necessitam de investigação adicional recorrendo a novas amostras forenses.

Recorreu-se à curva de ROC para calcular os pontos de corte que permitem discriminar entre amostra forense e amostra escolar para cada um dos dois sexos. Os pontos de corte identificados para rapazes e raparigas foram de 4 e de 3, respetivamente. Estes pontos de corte foram os escolhidos por apresentarem um bom equilíbrio entre sensibilidade (i.e., verdadeiros positivos) e especificidade (i.e., verdadeiros negativos). O ponto de corte 4 obtido para os rapazes é consistente com a literatura prévia (Quinsey et al., 2006); todavia, o ponto de corte 3 para as raparigas não tem referências prévias na literatura pelo que exige investigação adicional.

Relativamente à validade convergente, na maioria das amostras a CATS-SR registou correlações predominantemente moderadas com outras medidas de traços psicopáticos (e.g., APSD-SR, YPI) e de agressividade (e.g., RPQ) conforme esperado dada a sobreposição das medidas de psicopatia entre si e com a agressividade. Na amostra feminina forense obtiveram-se duas correlações baixas não significativas com o APSD-SR e o ICU, possivelmente devido ao menor tamanho desta amostra e ao facto destas medidas não terem sido originalmente concebidas tendo em mente o sexo feminino. A validade discriminante, estabelecida com recurso a uma medida de empatia (BES), revelou correlações baixas não-significativas, que eram esperadas dado que ambos os constructos não são sobreponíveis. A análise da validade de critério revelou predominantemente correlações que variam entre moderadas a baixas, estatisticamente significativas, com as variáveis idade de início na atividade criminal, consumo de droga, gravidade de crimes cometidos e sintomas de perturbação de comportamento. A amostra forense feminina novamente tendeu a apresentar os valores mais baixos nas correlações (e.g., com a variável sexo desprotegido sem preservativo). Outras variáveis de tipo criminal obtidas através de dados oficiais (e.g., frequência de crimes, crime violento) fornecidos pela DGRSP registaram correlações baixas não significativas com a CATS, o que poderá estar relacionado com o método de recolha da informação.

4. CONCLUSÕES

A presente tese pretendeu contribuir para aumentar o conhecimento sobre reincidência criminal e psicopatia em jovens delinquentes de ambos os sexos e para a validação de instrumentos de medida de forma a diversificar os recursos da avaliação psicológica em contexto forense em Portugal. Nesse sentido, foram desenvolvidos os três estudos abrangentes apresentados e discutidos de forma integrativa. Como conclusões do trabalho realizado, e tendo por referência o primeiro conjunto de estudos, os resultados obtidos proporcionam os primeiros dados publicados internacionalmente sobre reincidência criminal em rapazes e raparigas portuguesas a cumprir medida tutelar em Centro Educativo, assim como uma análise das relações entre reincidência criminal e traços psicopáticos de personalidade. Os dados obtidos mostram que os valores de reincidência atingem o pico durante o primeiro ano após a saída de Centro Educativo, com tendência a declinar progressivamente nos anos seguintes. Estes dados são convergentes com os estudos internacionais efetuados e põem em evidência a necessidade e o papel das intervenções de reinserção social durante o primeiro ano após o cumprimento de medida institucional em Centro Educativo, que podem ser críticas para evitar a reincidência criminal dos jovens, contrariando o desenvolvimento de uma carreira criminal crónica. Ao nível dos traços psicopáticos conclui-se que a maioria das medidas de autorresposta de psicopatia apresenta limitações na predição da psicopatia quando se controlam variáveis moderadoras de tipo criminal e se ajustam os níveis de significância dos testes estatísticos, revelando uma validade incremental reduzida.

Os resultados do segundo estudo levaram ao desenvolvimento de uma versão curta do YPI-Tri, designada por YPI-Tri-S. Esta versão curta constitui uma primeira medida breve do modelo triárquico de psicopatia em rapazes e raparigas envolvidos com o sistema judicial, além de jovens provenientes de contexto escolar. O YPI-Tri-S mostrou propriedades psicométricas promissoras ao nível da estrutura trifatorial,

consistência interna, validade convergente, validade discriminante, validade de critério e validade de grupos conhecidos. Esta medida poderá constituir um recurso na avaliação psicológica em contexto forense e em contexto escolar, de forma complementar a outros testes psicológicos, sendo de salientar que tem subjacentes indicadores de base neurobiológica que a poderão tornar especialmente útil para investigadores na área da neuropsicologia do comportamento criminal.

Finalmente, os resultados do estudo com a CATS-SR indicam que esta é uma medida válida e fiável para a avaliação do comportamento antissocial persistente, característico do constructo da psicopatia. Os resultados obtidos sugerem que a versão de autorresposta pode ser uma medida útil na investigação e na prática clínica, inclusive quando a PCL não está disponível (ver *Violence Risk Appraisal Guide*; Quinsey et al., 2006). Esta foi a primeira vez que as propriedades psicométricas da CATS-SR foram examinadas em amostras portuguesas e, também a nível internacional, em amostras femininas forenses e escolares. Todavia, é importante deixar claro que a CATS-SR deve ser principalmente utilizada como instrumento de rastreio para identificar os jovens que necessitam de avaliações aprofundadas em contexto forense. O estigma associado à psicopatia recomenda precaução na avaliação dos jovens (e.g., Edens & Vincent, 2008), especialmente em amostras forenses de raparigas.

Limitações e implicações práticas

São várias as limitações dos estudos que constituem a presente tese. O facto de parte dos dados recolhidos se basear em autorrelato dos participantes poderá ter contribuído para eventual enviesamento da informação obtida devido ao efeito da desejabilidade social (e.g., alguns jovens poderiam considerar que o seu percurso no Centro Educativo seria prejudicado caso revelassem informação potencialmente danosa

sobre si ou sobre crimes passados que cometeram), apesar das precauções tomadas para controlar esse efeito. A seleção dos participantes poderá ser considerada outra limitação importante dado que não foram seguidos métodos de amostragem estritamente aleatórios. Além disso, a amostra forense feminina ficou com um tamanho mais reduzido devido à dimensão da população de raparigas a cumprir medida tutelar em Centro Educativo. Tal limita a potencial generalização dos resultados obtidos. No que diz respeito ao estudo das propriedades psicométricas das várias medidas há que salientar a necessidade de recorrer a procedimentos de validação adicionais (e.g., estabilidade temporal), com outras amostras (i.e., validação cruzada), para se apurar se as boas propriedades métricas do YPI-Tri-S e da CATS se mantêm neste tipo de estudos.

A investigação desenvolvida no âmbito da presente tese é um contributo para o aprofundamento do escasso conhecimento científico sobre a reincidência criminal em jovens delinquentes no sul da Europa, particularmente em Portugal. Os conhecimentos sobre a reincidência criminal no contexto nacional poderão ser particularmente úteis na caracterização descritiva de delinquentes juvenis de ambos os sexos, contribuindo para a avaliação psicossocial das suas problemáticas específicas (e.g., risco de criminalidade persistente) e para a identificação de percursos etiológicos específicos e de trajetórias ligados ao desenvolvimento dos comportamentos antissociais e delituosos graves, além de fornecerem uma potencial base empírica consistente para orientar eventuais intervenções e para melhor compreensão dos processos de desistência (Loeber & LeBlanc, 1990; Moffitt, 1993, 2006; Monahan, Steinberg, Cauffman, & Mulvey, 2009; Mulvey et al., 2004; Sampson & Laub, 2003; Zara & Farrington, 2016).

A investigação baseada em amostras de delinquentes juvenis graves e persistentes, geralmente caracterizados por manifestarem níveis elevados de psicopatia,

pode permitir o desenvolvimento de intervenções mais eficazes e eficientes em termos de custos/benefícios, dado que permitirá focar recursos, por vezes escassos, nesta minoria especialmente problemática (Olver, 2019; Polaschek, 2019). Continuam a existir enormes lacunas no conhecimento e no desenvolvimento de programas especificamente orientados para prevenir a reincidência criminal em jovens com altos níveis de psicopatia, bem como na avaliação da sua eficácia. Esta escassez de conhecimento e de investimento na pesquisa poderá resultar de narrativas prevalentes segundo as quais os psicopatas são uma categoria qualitativamente distinta, de que a psicopatia tem fortes bases biológicas que a tornam crónica ao longo da vida e de que a manipulação, a baixa motivação para a mudança e a falta de vinculação afetiva os tornam irremediavelmente resistentes às intervenções psicossociais (Farrington, 2005).

Contudo, a investigação na área mostra que é crucial proceder-se o mais precocemente possível à identificação dos jovens em risco de delinquência ou que já tenham iniciado um percurso de transgressão (ver e.g., López-Romero et al., 2019), implementando-se programas de prevenção que envolvam progenitores, professores e outros técnicos, com o objetivo de impedir a consolidação de características antissociais e criminais de forma crónica ao longo da vida. As intervenções de cariz preventivo ou terapêutico deverão ser avaliadas em termos de eficácia, através de acompanhamentos longitudinais destes indivíduos, equacionando as suas taxas de ofensas e de reincidência (Cunneen & Luke, 2007). É primordial ter presente que os processos psicológicos e emocionais assumem um papel causal determinante na origem dos atos criminais e na reincidência criminal (Zamble & Quinsey, 1997). Considerando os enormes custos que os delinquentes crónicos e persistentes acarretam, pelos seus crimes e pelos efeitos colaterais na sociedade e nas suas vítimas, espera-se que a presente investigação possa

contribuir para estimular estudos futuros em Portugal sobre reincidência criminal e psicopatia.

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6. LEGISLAÇÃO

Lei n.º 166/99, de 14/09. Lei Tutelar Educativa. Diário da República n.º 215/1999, Série I-A de 1999-09-14.

Lei n.º 4/2015, de 15/01. Procede à primeira alteração à Lei Tutelar Educativa, aprovada em anexo à Lei n.º 166/99, de 14 de setembro. Diário da República, 1.ª série N.º 10 de 15 de janeiro de 2015.

ANEXOS

Anexo A


Declarações dos orientadores

DECLARAÇÃO

Para os devidos efeitos declaro aceitar orientar a **dissertação de doutoramento** intitulada "**REINCIDÊNCIA CRIMINAL EM JOVENS DELINQUENTES: DA AVALIAÇÃO À INTERVENÇÃO**", apresentada por **PEDRO FERNANDES DOS SANTOS PECHORRO**, DOUTORADO PELA FM-UL E PROF. AUXILIAR NA ULHT, à **Faculdade de Psicologia e de Ciências da Educação da Universidade de Coimbra**, no âmbito da sua candidatura ao **grau de Doutor em Psicologia (especialidade em Psicologia Forense)**.

Mais informo que **concordo com o plano de trabalhos proposto** e que o **Prof. JAMES RAY** (UNIVERSITY OF TEXAS AT SAN ANTONIO) aceitou ser **Co-Orientador da referida dissertação**.

Coimbra, 02 de Agosto de 2016.



Mário Manuel Rodrigues Simões
(Orientador, Prof. Catedrático da FPCE-UC)

DECLARAÇÃO

Para os devidos efeitos declaro aceitar orientar **Pedro Fernandes dos Santos Pechorro**, no âmbito do seu projeto de investigação conducente a tese de **doutoramento em Psicologia, especialidade em Psicologia Forense**, intitulado “Reincidência Criminal em Jovens Delinquentes: da Avaliação à Intervenção”, apresentado à Faculdade de Psicologia e Ciências da Educação da Universidade de Coimbra.

Coimbra, 10 de Março de 2017



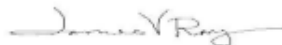
Isabel Maria Marques Alberto
(Professora Auxiliar da FPCE-UC)

July 25, 2016

Dear Professor Mário Simões and Committee Members,

My name is James Ray and I am currently an Assistant Professor at the University of Texas at San Antonio in the Department of Criminal Justice. I specialize in juvenile justice and delinquency research focusing on the interplay between individual and contextual factors to help better understand juvenile offending and outcomes of juvenile court involvement. Dr. Pedro Pechorro has asked me to serve as the external research supervisor in helping to oversee his dissertation as part of the requirement for completing his Doctorate of Forensic Psychology in the department of Psychology at the University of Coimbra (Faculty of Psychology and Educational Sciences). My experience working with Dr. Pedro Pechorro has been nothing short of excellent and, therefore, I accept the role as external research supervisor on his dissertation entitled "REINCIDÊNCIA CRIMINAL EM JOVENS DELINQUENTES: DA AVALIAÇÃO À INTERVENÇÃO" in assisting the lead supervisor, Prof. Mário Simões. I am excited to be a part of such an important project and I look forward to working with you all.

Sincerely,



James V Ray, Ph.D.
Assistant Professor
Department of Criminal Justice
College of Public Policy
University of Texas at San Antonio
501 W Cesar E. Chavez, Blvd.
San Antonio, TX 78207
Phone: 210.458.2537
Email: James.Ray@utsa.edu

Anexo B

Autorização da DGRSP

PARECER

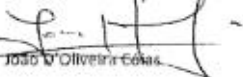
Visto, concordo.

Proponho que seja superiormente autorizada a recolha de dados nos CE para efeitos do estudo solicitado pelo colega Dr. Pedro Pechorro.

Comunique-se à DSOPRE.


Lisboa, 2016-09-19

O Diretor de Serviços da DSJJ


João Oliveira

DESPACHO

*Concordo
Autorizo na condição
da não facultar copia
da resposta neste caso
que estabelecer o mesmo.
21/9/2016*


CELSO MANATA
DIRETOR GERAL

Informação Nº: 62/DSJJ/2016 de 19 de setembro

Assunto: Pedido de autorização para recolha de dados nos Centros Educativos

No âmbito da solicitação Dr. Pedro Pechorro, na qualidade de doutorando da Faculdade de Psicologia e de Ciências da Educação da Universidade de Coimbra, orientado pelo Professor Doutor Mário Simões, para autorização relativa a recolha de dados nos Centros Educativos, nomeadamente aos jovens internados, com aplicação de um questionário, cumpre-nos informar que foram auscultados todos os Centros Educativos na pessoa dos seus Diretores.

O trabalho decorrerá ao longo do próximo ano em condições combinadas entre o signatário do pedido e cada Diretor de CE, tendo como ponto de partida a livre adesão, a não identificação dos participantes e a confidencialidade da informação relativa a cada jovem.

O trabalho intitula-se "Reincidência Criminal em Jovens Delinquentes: Da Avaliação à Intervenção" e pretende estudar a reincidência dos jovens, analisando-se variáveis de tipo sociodemográfico e criminal com especial ênfase no constructo da psicopatia, validando o instrumento CATS (Child and Adolescent Taxon Scale) e utilizando também o Youth Psychopathic Traits Inventory (YPI).

Em conclusão, da auscultação aos CEs solicitada pela Direção de Serviços de Organização Planeamento e Relações Externas, a quem foi dirigido o pedido acima descrito, e cujos documentos que o suportam se juntam à presente informação, todos deram o consentimento relativamente à disponibilidade para receber o doutorando Dr. Pedro Pechorro, em momento aferido entre as partes e observando as regras de funcionamento, segurança e tranquilidade dos jovens que compõem a amostra, sem acréscimo de trabalho a cada uma das equipas técnicas envolvidas.

À Consideração Superior,

A Técnica Superior


Margarida Macedo

Anexo C

Questionário sociodemográfico e instrumentos psicométricos

TERMO DE CONSENTIMENTO INFORMADO

Versão Centro Educativo

Concordo em participar neste estudo de doutoramento de Pedro Fernandes dos Santos Pechorro a decorrer no presente Centro Educativo.

Foi-me dada uma explicação da natureza e objectivos deste estudo e concedida a possibilidade de perguntar e esclarecer todos os aspectos que me pareceram pertinentes.

Foi-me dada a informação de que os dados obtidos por este questionário são confidenciais.

Concordo em que os dados recolhidos sejam analisados pelos investigadores envolvidos no estudo.

Sei que a minha participação é voluntária e que sou livre de desistir deste estudo se for esse o meu desejo.

Local _____

Data _____

Não deixes nenhuma pergunta por responder

Questionário Sócio-demográfico

1. Qual é a tua data de nascimento? _____; Idade: _____ anos

2. Qual é o teu sexo?

Masculino Feminino

3. Qual é a tua raça/etnia?

Branco Negro Mulato Cigano

Outra. Qual? _____

4. Qual é a tua nacionalidade?

Portuguesa Países da Europa Países de África

Outra. Qual? _____

5. Em que localidade moras habitualmente? _____

6. Que escolaridade tens já completa? _____

7. Que escolaridade têm os teus pais?

Pai

- Sem estudos/analfabeto
- 1º Ciclo (4º ano)
- 2º Ciclo (6º ano)
- 3º Ciclo (9º ano)
- Ensino Secundário (12º ano)
- Ensino Superior/Universitário
- Não sei

Mãe

- Sem estudos/analfabeta
- 1º Ciclo (4º ano)
- 2º Ciclo (6º ano)
- 3º Ciclo (9º ano)
- Ensino Secundário (12º ano)
- Ensino Superior/Universitário
- Não sei

8. Que profissão têm os teus pais?

Pai _____ Não sei

Mãe _____ Não sei

9. Assinala a situação que corresponde melhor à situação dos teus pais:

- O meu pai e a minha mãe estão casados / vivem juntos
- O meu pai e a minha mãe estão divorciados / separados
- O meu pai já faleceu
- A minha mãe já faleceu

10.1. Com quem vives habitualmente em tua casa?

10.2. Quantas pessoas vivem em tua casa ao todo (incluindo tu)?

- Somos _____ pessoas.

11. Tens quantos irmãos ao todo (incluindo tu)?

- Somos _____ irmãos.

12. Estás a tomar medicamentos para os “nervos” ou “cabeça” (psiquiátricos)?

- Não Sim

13. Já te envolveste em actividades ilegais (contra a lei)?

- Não Sim

13.2. Se respondeste Sim, que idade tinhas quando te envolveste pela primeira vez nessas actividades ilegais?

- Tinha _____ anos.

14. Já tiveste problemas com a lei (policia, esquadra, etc.)?

- Não Sim

14.2. Se respondeste Sim, que idade tinhas quando tiveste problemas pela primeira vez com a lei?

- Tinha _____ anos.

15. Já estiveste internado num Centro Educativo (“reformatório”) do Ministério da Justiça?

Não Sim

15. Se respondeste Sim, que idade tinhas quando estiveste internado pela primeira vez num Centro Educativo?

Tinha _____ anos.

APSD-SR

Lê cada uma das questões seguintes e decide o quanto te descreve.

Responde a todas as afirmações o melhor que puderes baseando-te na forma como eras nos últimos meses antes de entrares nos Centros Educativos.

	Muitas vezes verdade	Por vezes verdade	Falso
1. Culpas os outros pelos teus erros?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Envolves-te em actividades ilegais (contra a lei)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Fazes as coisas sem pensares nas consequências?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Pareces ser falso às outras pessoas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. És bom a mentir?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Gabas-te muito das coisas que fazes ou tens?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Ficas facilmente aborrecido?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Enganas ou usas as pessoas para teres o que queres?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Gozas ou divertes-te à custa das outras pessoas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Fazes coisas arriscadas ou perigosas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Fazes-te de simpático para conseguires as coisas que queres?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Ficas zangado quando te corrigem ou castigam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Pensas que és melhor ou mais importante que os outros?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Deixas as coisas que tens a fazer sempre para o último minuto?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Preocupas-te com o teu desempenho na escola ou no trabalho?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. És bom a manter as promessas que fazes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Sentes-te mal ou culpado quando fazes alguma coisa de errado?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Preocupas-te com os sentimentos dos outros?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Mostras os teus sentimentos às outras pessoas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Tens mantido a amizade com os mesmos amigos?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

YPI

Lê cada uma das questões seguintes e decide o quanto se aplica a ti.
 Responde a todas as afirmações o melhor que puderes baseando-te na forma como tens sido nos últimos meses antes de entrares nos Centros Educativos.

	Discordo totalmente	Discordo	Concordo	Concordo totalmente
1. Gosto de estar onde acontecem coisas excitantes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Geralmente fico calmo em situações em que as outras pessoas ficam assustadas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Prefiro gastar logo o dinheiro em vez de o poupar.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Aborreço-me rapidamente quando as coisas são sempre iguais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Provavelmente já faltei à escola ou ao trabalho mais vezes do que a maioria das pessoas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. É fácil para mim ser charmoso e sedutor para conseguir das pessoas aquilo que quero.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. É divertido inventar histórias e tentar levar as pessoas a acreditarem nelas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Tenho a capacidade de não me sentir culpado nem arrependido de coisas más que tenha feito.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Considero-me uma pessoa bastante impulsiva.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Sou melhor que os outros em quase tudo.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Consigo fazer as pessoas acreditar em quase tudo.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Acho que chorar é sinal de fraqueza mesmo que ninguém nos veja.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Se eu ganhasse muito dinheiro no euromilhões (lotaria) desistia da escola ou do trabalho e passava a fazer só coisas divertidas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Tenho jeito para enganar as pessoas, usando o meu charme e o meu sorriso.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Sou bom a fazer as pessoas acreditarem em mim quando invento alguma história.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Já cheguei muitas vezes atrasado à escola ou ao trabalho.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Quando as outras pessoas têm problemas muitas vezes é por culpa delas, por isso não devíamos ajudá-las.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Muitas vezes falo primeiro e só penso depois.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Tenho capacidades que vão muito além das capacidades das outras pessoas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. É fácil para mim manipular as pessoas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Raramente me arrependo das coisas que faço, mesmo se as outras pessoas achem que são erradas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Gosto de fazer coisas apenas pela excitação que me provocam.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. É importante para mim não ferir os sentimentos das outras pessoas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. As vezes minto sem motivo, só porque é divertido.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Estar nervoso e preocupado é um sinal de fraqueza.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

YPI (2)				
Lê cada uma das questões seguintes e decide o quanto se aplica a ti. Responde a todas as afirmações o melhor que puderes baseando-te na forma como tens sido nos últimos meses antes de entrares nos Centros Educativos.	Discordo totalmente		Concordo totalmente	
	Discordo	Concordo	Discordo	Concordo
26. Se eu tiver a oportunidade de fazer algo divertido, faço-o independentemente do que tenha estado a fazer antes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Quando alguém me pergunta alguma coisa, geralmente dou uma resposta rápida que parece verdadeira, ainda que tenha acabado de a inventar.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Quando alguém descobre que fiz algo de errado, sinto-me mais zangado do que culpado.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Aborreço-me muito depressa se estiver a fazer sempre as mesmas coisas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. O mundo seria um lugar bem melhor se fosse eu que mandasse.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. Para levar as pessoas a fazerem o que eu quero, muitas vezes o melhor é enganá-las.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. Muitas vezes faço coisas sem pensar nas consequências.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. Muitas vezes comporto-me de forma charmosa e simpática, mesmo com pessoas de quem não gosto, para conseguir o que quero.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. Já me aconteceu várias vezes pedir uma coisa emprestada e depois perdê-la.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. Geralmente sinto-me triste e comovido quando vejo coisas tristes na televisão ou no cinema.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. O que assusta os outros normalmente não me assusta a mim.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. Sou mais importante e tenho mais valor que as outras pessoas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. Quando é preciso, uso o meu sorriso e o meu charme para tirar partido dos outros.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. Não entendo como há pessoas que ficam tão emocionadas ao ponto de chorarem com o que vêem na televisão ou nos filmes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. Muitas vezes não fiz a tempo os trabalhos escolares.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. Estou destinado a ser uma pessoa importante e bem conhecida.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. Gosto de fazer coisas excitantes e perigosas, mesmo que sejam proibidas ou ilegais.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. Às vezes dou comigo a mentir sem um motivo especial.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. É sinal de fraqueza sentir culpa e remorsos por coisas que fizemos e que magoaram os outros.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. Não deixo que os meus sentimentos me afetem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46. Já aconteceu eu ter-me aproveitado (usado) de alguém para conseguir o que queria.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47. Gosto de exagerar e inventar quando estou a contar alguma coisa.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. É uma perda de tempo sentir culpa e lamentar o que fizemos de errado.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49. Geralmente fico triste quando vejo outras pessoas tristes ou a chorar.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50. Muitas vezes meti-me em sarilhos por ter mentido demasiado.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

RPQ					
Responde a todas as afirmações o melhor que pudeses baseando-te na forma como tens sido nos últimos meses. Com que frequência tu...					
	Quase nunca / Nunca	Pouca vezes	Algumas vezes	Muitas vezes	Quase sempre / Sempre
1. Gritaste com outras pessoas quando elas te chatearam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Ficaste zangado quando certas pessoas te provocaram?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Ficaste zangado quando as coisas não correram como tu querias?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Fizeste birras ou ficaste de mau humor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Estragaste ou danificaste coisas porque estavas zangado?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Ficaste zangado quando não conseguiste fazer o que querias?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Ficaste zangado ou de mau humor quando perdeste um jogo ou uma aposta?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Ficaste zangado quando outras pessoas te ameaçaram?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Sentiste-te melhor depois de bateres ou gritares com alguém?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Bateste noutras pessoas para te defenderes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Zangaste-te ou bateste noutras pessoas por te estarem a gozar?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Discutiste com outras pessoas para mostrares quem manda?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Ficaste com coisas de outros miúdos?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Estragaste ou danificaste coisas só para te divertires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Participaste em lutas entre grupos (por exemplo: para te armares em bom)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Aleijaste outras pessoas para ganhares um jogo ou uma aposta?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Usaste força física para lewares outros a fazerem o que tu querias?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Usaste força para obter dinheiro ou coisas de outras pessoas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Ameaçaste ou intimidaste alguém?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Fizeste telefonemas a ameaçar ou a gozar com alguém para te divertires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Juntaste-te a um grupo para fazeres "a folha" a alguém?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Andaste com uma arma (por exemplo: faca) para utilizares numa luta?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Gritaste com outras pessoas para elas fazerem o que tu querias?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I. Consumiste bebidas alcoólicas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
II. Consumiste drogas, como haxixe ("pólen") ou marijuana ("erva")?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
III. Consumiste drogas, como ecstasy ("pastilhas"), cocaína ("branca") ou heroína?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IV. Tiveste relações sexuais sem utilizares preservativo?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

BES

Lê cada uma das questões seguintes e decide o quanto te descreve.
 Responde a todas as afirmações o melhor que puderes baseando-te na forma como eras nos últimos meses antes de entrares nos Centros Educativos.

	Totalmente falso	Em parte falso	Muitas vezes verdade	Em parte verdade	Totalmente verdade
1. Sou bastante sensível aos sentimentos dos meus amigos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Depois de falar com um amigo que está triste geralmente também fico triste.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Fico assustado quando vejo filmes de terror.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Sou facilmente influenciado pelos sentimentos das outras pessoas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Fico triste quando vejo outras pessoas a chorar.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Sou bastante sensível aos sentimentos das outras pessoas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Fico frequentemente triste quando vejo coisas tristes na televisão ou em filmes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Ver pessoas zangadas a discutir perturba-me emocionalmente.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Quando os meus amigos estão nervosos eu também fico nervoso.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Costumo deixar-me influenciar pelos sentimentos dos meus amigos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. A infelicidade dos meus amigos faz-me ficar infeliz também.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Consigo perceber a felicidade dos meus amigos quando acontecem coisas boas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Tenho facilidade em perceber quando os meus amigos estão nervosos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Quando as pessoas se sentem em baixo geralmente costumo perceber como elas se sentem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Geralmente costumo perceber quando os meus amigos estão nervosos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Geralmente costumo perceber como as pessoas se sentem mesmo antes de elas me dizerem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Geralmente costumo perceber quando as pessoas estão contentes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Geralmente costumo perceber rapidamente quando um amigo está zangado.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Geralmente apercebo-me bem dos sentimentos dos meus amigos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Tenho facilidade em perceber quando os meus amigos estão felizes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ICU				
Lê cada uma das questões seguintes e decide o quanto te descreve. Responde a todas as afirmações o melhor que puderes baseando-te na forma como eras nos últimos meses antes de entrares nos Centros Educativos.				
	Totalmente falso	Quase sempre falso	Por vezes falso	Por vezes verdade
4. Não me importa quem magoo para conseguir o que quero.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Não me preocupo com os sentimentos das outras pessoas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Não me importo de me meter em problemas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Não sinto remorsos quando faço coisas erradas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Não me preocupo em fazer as coisas bem feitas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Os sentimentos das outras pessoas não são importantes para mim.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Não me preocupo em ser pontual.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Não gosto de gastar tempo a fazer as coisas bem feitas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. O que eu penso ser certo ou errado é diferente do que as outras pessoas pensam.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Não deixo os meus sentimentos controlarem-me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Pareço ser muito frio e insensível às outras pessoas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Tento sempre fazer as coisas o melhor possível.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Trabalho duramente nas coisas que faço.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Peço desculpa quando magoo outras pessoas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Preocupo-me com o meu desempenho na escola ou no trabalho.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Tento não magoar os sentimentos das outras pessoas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Tento fazer com que as outras pessoas se sintam bem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Admito facilmente quando estou errado.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Sinto-me mal ou culpado quando faço algo de errado.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1. Expresso os meus sentimentos abertamente.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Sou uma pessoa muito sentimental e emocional.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Mostro as minhas emoções às outras pessoas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Não escondo os meus sentimentos das outras pessoas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. As outras pessoas percebem facilmente como eu me sinto.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DSM-IV-TR PC & CATS

Responde a todas as questões o melhor que puderes baseando-te no que fazias antes de entrares nos Centros Educativos.

	Não	Sim
1. Com frequência insultaste, ameaçaste ou intimidaste outras pessoas?	<input type="checkbox"/>	<input type="checkbox"/>
2. Com frequência iniciaste lutas físicas?	<input type="checkbox"/>	<input type="checkbox"/>
3. Utilizaste uma arma que poderia causar ferimentos físicos aos outros (exemplo: pau, soqueira, chino, faca, arma de fogo)?	<input type="checkbox"/>	<input type="checkbox"/>
4. Foste fisicamente cruel (exemplo: aleijaste ou magoaste) com as pessoas?	<input type="checkbox"/>	<input type="checkbox"/>
5. Foste fisicamente cruel (exemplo: aleijaste ou magoaste) com os animais?	<input type="checkbox"/>	<input type="checkbox"/>
6. Roubaste uma pessoa (exemplo: roubo, roubo por esticção, roubo à mão armada)?	<input type="checkbox"/>	<input type="checkbox"/>
7. Forçaste alguém a ter actividades sexuais?	<input type="checkbox"/>	<input type="checkbox"/>
8. Pegaste um fogo (incêndio) de propósito com intenção de causar danos?	<input type="checkbox"/>	<input type="checkbox"/>
9. Destruíste de propósito propriedade alheia (pública ou de outras pessoas)?	<input type="checkbox"/>	<input type="checkbox"/>
10. Arrombaste a casa, a propriedade ou o carro de outra pessoa?	<input type="checkbox"/>	<input type="checkbox"/>
11. Menteste com frequência para obteres ganhos ou favores ou evitares obrigações?	<input type="checkbox"/>	<input type="checkbox"/>
12. Roubaste objectos de certo valor sem te confrontares com vítimas (exemplo: furto em lojas ou noutros sítios)?	<input type="checkbox"/>	<input type="checkbox"/>
13. Desde antes dos 13 anos de idade, frequentemente permanecias fora de casa à noite apesar da proibição dos teus pais (ou familiares)?	<input type="checkbox"/>	<input type="checkbox"/>
14. Fugiste de casa durante a noite pelo menos 2 vezes enquanto vivias em casa dos teus pais (ou familiares), ou 1 só vez durante um período prolongado?	<input type="checkbox"/>	<input type="checkbox"/>
15. Desde antes dos 13 anos de idade, faltavas frequentemente à escola?	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
I. Na escola tiveste problemas de disciplina ou por faltares às aulas?	<input type="checkbox"/>	<input type="checkbox"/>
II. Consumiste bebidas alcoólicas com alguma frequência?	<input type="checkbox"/>	<input type="checkbox"/>
III. Antes dos 15 anos de idade, agrediste fisicamente um colega ou outra pessoa?	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
V. Já foste suspenso ou expulso da escola?	<input type="checkbox"/>	<input type="checkbox"/>
VI. Antes dos 16 anos de idade, foste levado para a esquadra pela policia ou preso?	<input type="checkbox"/>	<input type="checkbox"/>
VII. O teu pai ou a tua mãe abusaram das bebidas alcoólicas?	<input type="checkbox"/>	<input type="checkbox"/>
VIII. Os teus pais separaram-se antes de tu teres 16 anos de idade?	<input type="checkbox"/>	<input type="checkbox"/>

ICS

Responde Falso ou Verdadeiro às afirmações abaixo sobre actos que possas ter cometido antes de entrares nos Centros Educativos.

	Verdadeiro	Falso
	<input type="checkbox"/>	<input type="checkbox"/>
1. Cometi pequenos actos contra a lei <u>em minha casa</u> , tais como por exemplo pelo menos um dos seguintes: roubar pequenas quantias de dinheiro em casa <u>ou</u> coisas de valor inferior a 5 euros.	<input type="checkbox"/>	<input type="checkbox"/>
2. Cometi pequenos actos contra a lei <u>fora de casa</u> , tais como por exemplo pelo menos um dos seguintes: roubar coisas de valor inferior a 5 euros, não pagar bilhete de autocarro/comboio <u>ou</u> fazer graffiti em sitios proibidos.	<input type="checkbox"/>	<input type="checkbox"/>
3. Cometi actos contra a lei, tais como por exemplo pelo menos um dos seguintes: roubar coisas de valor superior a 5 euros (exemplo: telemóveis), participar em lutas entre grupos <u>ou</u> porte de armas (exemplo: faca, pistola).	<input type="checkbox"/>	<input type="checkbox"/>
4. Cometi actos contra a lei, tais como por exemplo pelo menos um dos seguintes: roubar carros, motas, arrombar e roubar casas, lojas <u>ou</u> garagens.	<input type="checkbox"/>	<input type="checkbox"/>
5. Cometi actos contra a lei, tais como por exemplo pelo menos um dos seguintes: crimes violentos contra pessoas, agressões com armas (exemplo: faca, pau, pistola) <u>ou</u> agressões físicas (exemplo: murros, pontapés).	<input type="checkbox"/>	<input type="checkbox"/>

Anexo D

Primeira página dos manuscritos publicados



Original Manuscript

A Prospective Study on Self-Reported Psychopathy and Criminal Recidivism Among Incarcerated Male Juvenile Offenders

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Isabel Alberto¹, and Mário R. Simões¹

Abstract

The present study examines the utility of three self-report measures of psychopathic traits in predicting recidivism among a sample of incarcerated male juvenile offenders. Participants ($N = 214$, $M = 16.40$ years, $SD = 1.29$ years) from seven Portuguese juvenile detention centers were followed and prospectively classified as recidivists versus non-recidivists. Area under the curve (AUC) analysis revealed that the Antisocial Process Screening Device–Self-Report (APSD-SR) presented the best performance in terms of predicting general recidivism, with the Youth Psychopathic Traits Inventory (YPI) and the Childhood and Adolescent Taxon Scale–Self-Report (CATS-SR) presenting much poorer results. However, logistic regression models controlling for past frequency of crimes and age of first incarceration found that none of these self-report measures significantly predicted 1- or 3-year recidivism, whether general or violent. Findings suggest there are limitations in terms of the incremental utility of self-report measures of psychopathic traits in predicting recidivism among juveniles.

Keywords

crime, juvenile offenders, psychopathy, recidivism, self-report

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Current Psychology

The utility of self-reported psychopathic traits in predicting recidivism among a sample of incarcerated female youths

--Manuscript Draft--

Manuscript Number:	CUPS-D-19-00112R2
Full Title:	The utility of self-reported psychopathic traits in predicting recidivism among a sample of incarcerated female youths
Article Type:	Original Article
Funding Information:	
Abstract:	<p>Only a few studies have prospectively examined the utility of self-reported measures of psychopathic traits in predicting criminal behavior among forensic samples of female youth offenders. The main aim of this study is to compare the utility of two self-report measures of psychopathic-like traits in predicting criminal recidivism among a sample of incarcerated female youth. Participants (N = 76) from the three nation-wide Portuguese juvenile detention centers that admit female youth were followed over two years and prospectively classified as recidivists versus non-recidivists. Logistic regression models revealed that neither the Antisocial Process Screening Device – Self-Report (APSD-SR) nor the Youth Psychopathic Traits Inventory (YPI) and their respective dimensions significantly predicted one- and two-year general recidivism and violent recidivism. Findings mostly suggest there are clear limitations in terms of the incremental utility of self-report measures of psychopathic traits in predicting criminal recidivism among incarcerated female juveniles.</p>
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Order of Authors Secondary Information:	
Author Comments:	.
Response to Reviewers:	<p>COMMENTS FOR THE AUTHOR:</p> <p>Reviewer #3: Dear editor</p> <p>The authors were relatively responsive to my prior comments and suggestions. I do think some issues remain to be addressed.</p> <p>First, and most importantly: as requested the authors provided exact number of recidivists in the revised paper. There are 20 general recidivists and of these 20 there were 7 violent recidivist. Yet, unless I got it wrong, the authors performed logistic regression analyses with up to 3 and even 5 predictors. There is a rule of thumb stating that for each 10 participants in the outcome category with the lowest number of participants (here: recidivists) one predictor can be used. So, how appropriate is it to use 3 to 5 predictors in some models (see tables) if we are dealing with 20 or 7 participants in the outcome category of interest? Rather than the low internal consistency of some predictor scores, I think that it cannot at all be excluded that the</p>

The triarchic model of psychopathy among incarcerated male youths

A psychometric study

Pedro Pechorro, Matt DeLisi, Isabel Alberto,
James V. Ray, and Mário R. Simões

We wish to thank the following Portuguese juvenile detention centers: Bela Vista, Mondego, Navarro de Paiva, Olivais, Padre António Oliveira, Santo António, Santa Clara, and Prisão-Escola de Leiria.

In memory of George Palermo, esteemed editor of the *International Journal of Offender Therapy and Comparative Criminology*.

Introduction

Patrick, Fowles, and Krueger's (2009) triarchic model is one of the newest conceptual models of psychopathy, one that highlights boldness, meanness, and disinhibition as being noteworthy features to the disorder. According to their historical review of the psychopathy construct, boldness, meanness, and disinhibition have been recurrent, central themes of the disorder. In their conceptualization, boldness relates to an assertive, socially dominant interpersonal style and venturesomeness. It is the ability to recover quickly from stressful situations, having high self-assurance, and having a tolerance for unfamiliarity and danger. Boldness encompasses social functioning and is clearly not intended to be limited to antisocial or criminal individuals but is instead a general population feature.

In contrast, meanness captures the callous, cold, cruel, aggressive features of psychopathy and draws on the tradition of criminal psychopathy seen in works from decades earlier (for a review, see DeLisi, 2016). Meanness captures the angry, hostile, aggressive, and violent aspects of the disorder. According to Patrick (2010), meanness is seen in many behavioral manifestations displayed in psychopaths' life histories. These include arrogance and verbal derisiveness, defiance of authority, physical cruelty to animals (especially during childhood), and humans (during adolescence and adulthood), various forms of aggression, destructiveness, and the targeted exploitation of others for gain.



Triarchic Model of Psychopathy: A Brief Measure Among Detained Female Youths

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ABSTRACT

The present study examined the psychometric properties of a brief measure of the Triarchic model of psychopathy based on the Youth Psychopathic Traits Inventory (YPI-Tri-5) among a forensic sample of detained female youth offenders ($M = 16.41$ years; $SD = 1.19$ years) from Portugal. Results supported the expected three-factor structure and cross-gender measurement invariance. The YPI-Tri-5 showed good psychometric properties in terms of factor structure, internal consistency, convergent validity, discriminant validity, and criterion-related validity. Findings suggest that the YPI-Tri-5 is a valid and reliable measure of the Triarchic model of psychopathy, which can be used to assess female juvenile offenders.

ARTICLE HISTORY

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Introduction

The recently developed Triarchic Model of Psychopathy (Patrick, Fowles, and Krueger 2009) conceptualizes boldness, meanness, and disinhibition as distinct key features of psychopathy with specific neurobiological referents. The triarchic model was formulated to reconcile different conceptions of psychopathy reflected in historic and contemporary scientific writings (e.g., scope of the psychopathy construct, unitary versus configural nature of the construct, conceptualization of the “successful” psychopath, criminal behavior as an essential dimension of psychopathy) while addressing a large amount of unresolved issues in the field, and providing a general framework for conceptualization and assessment of psychopathy (Patrick and Drislane 2015).

According to Patrick (2010a), the triarchic model proposes that psychopathy encompasses three distinct but intersecting symptomatic (phenotypic) constructs: boldness, disinhibition, and meanness. Boldness describes a phenotypic style entailing a capacity to remain calm and focused in situations involving pressure or threat, an ability to recover quickly from stressful events, high self-assurance and social efficacy, and a tolerance for unfamiliarity and danger. Disinhibition describes a general phenotypic propensity toward impulse control problems entailing a lack of planfulness and foresight, impaired regulation of affect and urges, insistence on immediate gratification, and deficient behavioral restraint. Meanness describes a constellation of phenotypic attributes, including deficient empathy, disdain for and lack of close attachments with others, rebelliousness, excitement seeking, exploitativeness, and empowerment through cruelty.

A growing number of empirical studies have been published providing support for the triarchic model, with the majority of these studies using the Triarchic Psychopathy Measure (TriPM; Patrick 2010b), a 58-item self-report inventory, to operationalize boldness, disinhibition and meanness through separate subscales (Patrick and Drislane 2015). The TriPM has been translated into several



A brief measure of the triarchic model of psychopathy among community youths: psychometrics and measurement invariance

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ABSTRACT

The development and validation of empirically sound measures that operationalize the Triarchic model of psychopathy among youth is currently in the nascent stage. The present study aimed to examine the psychometric properties of a brief refined measure of the Triarchic model of psychopathy based on the Youth Psychopathic Traits Inventory (YPI-Tri-S) among a mixed-gender school sample of 782 youth ($M = 15.87$ years, $SD = 1.72$) from Portugal. Confirmatory factor analysis offered support for the theoretically expected three-factor structure. Cross-gender measurement invariance using the present sample and cross-sample measurement invariance of the YPI-Tri-S using a previously collected forensic sample of institutionalized males was established. The YPI-Tri-S showed adequate psychometric properties in terms of discriminant validity, convergent validity, concurrent criterion-related validity, known-groups validity, and internal consistency. Findings indicate that YPI-Tri-S is a valuable brief and psychometrically reliable and valid self-report measure of the Triarchic model of psychopathy for use in diverse samples of youth.

ARTICLE HISTORY


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KEYWORDS

Adolescence; assessment;
measurement invariance;
triarchic model of
psychopathy; validation

Introduction

The scientific study of psychopathy is characterized by extensive development of valid and reliable measurement tools of the disorder, and at times, this has engendered vociferous debate within the field on the most appropriate ways to operationalize and study the disorder (cf., Boduszek & Debowska, 2016; Boduszek, Debowska, Dhingra, & DeLisi, 2016; Hare & Neumann, 2010; Hemphill & Hare, 2004; Skeem & Cooke, 2010). Although these debates have been contentious, a healthy consequence of this debate has been the proliferation of measures of psychopathy that focus on assorted characteristics of the disorder. Many of these new measures are self-report inventories that allow for relatively fast assessment, avoid the potential tautological problems of using official records, such as arrest and

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The Childhood and Adolescent Taxon Scale – Self-Report: Validity Among Male and Female Youths from Forensic and School Contexts

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ABSTRACT

This study provides the first examination of the Childhood and Adolescent Taxon Scale – Self-report (CATS-SR) proxy measure of the persistent antisocial behavior dimension of psychopathy, based on childhood and adolescent history, in a European context and with female youth. The CATS-SR is evaluated in a sample of 1,134 male and female youth recruited from forensic or school settings in Portugal. The CATS-SR did not significantly differ for male and female youth seen in forensic settings, but was higher in male than female youth recruited from schools, and higher in youth seen in forensic than in school settings. The CATS-SR was positively and moderately correlated with self-report psychopathy construct measures that included items tapping interpersonal and affective facets of psychopathy such as callousness and impulsivity. It also correlated as expected with age of first criminal contact, crime seriousness, conduct disorder diagnosis, drug use, and having unprotected sex. The findings suggest that the CATS-SR has discriminant, convergent, and criterion-related validity, and could therefore be useful in assessments of the persistent antisocial dimension of psychopathy.

KEYWORDS



Assessment; antisocial behavior; Childhood and Adolescent Taxon Scale (CATS); gender; psychopathy; validation

Introduction

Psychopathy is an extremely important concept in forensic and correctional psychology. As described by Cleckley (1988/1941) and later operationalized by Hare (1991, 2003), psychopathic traits include callous-unemotional traits such as a lack of empathy for others, willingness to exploit others, lack of remorse or guilt, and restricted emotional expression, as well as antisocial and unstable lifestyle traits such as impulsivity, irresponsibility, and frequent delinquent and criminal behavior. There is debate, however, over how psychopathy should be conceptualized. For instance, some scholars have argued that the features associated with antisocial behavior are best considered as secondary symptoms or outcomes of the core affective and interpersonal features of psychopathy (see Cooke, Michie, Hart, & Clark, 2004; Skeem & Cooke, 2010). This debate has led to the development of several measures that leave out the behavioral features of psychopathy. This debate aside, psychopathy is associated with a wide range of negative outcomes, including institutional behavior problems, probation

or parole violations, recidivism, future violence, and poorer treatment outcomes (Seto & Barbaree, 1999; Walters, 2003; Walters, Knight, Grann, & Dahle, 2008). The best known and most widely used clinical measure of psychopathy is the Psychopathy Checklist-Revised (PCL-R; Hare, 2003), a 20-item checklist completed by clinicians or other evaluators.

Psychopathy does not appear spontaneously in adulthood. Indeed, PCL-R ratings are based on knowledge of traits and behaviors over the person's lifetime (Hare, 2003). Callous-unemotional traits play an important role in psychopathy and in the development and prediction of delinquency. For example, in their review, Frick and White (2008) noted that callous-unemotional traits are high in a subgroup of delinquent youth, remain relatively stable through childhood and adolescence, and are correlated with a particularly serious and stable pattern of antisocial and aggressive behavior. While some youth show declines in callous-unemotional traits over time, there is a consistent subgroup of youth who have been identified as having high stable patterns of callous-

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