RASSEGNA ITALIANA DI CRIMINOLOGIA ANNO XIX N.3 2025

Società Italiana di Criminologia

Articoli generali

Behind the psychopathic illusion of «health invulnerability»: assessing psychopathy and health in the Cambridge Study in Delinquent Development (CSDD)

Guy C. M. Skinner | Henriette Bergstrøm | Darrick Jolliffe | David P. Farrington | Georgia Zara

OPEN ACCESS

Double blind peer review

How to cite this article: Skinner G.C.M. et al. (2025). Behind the psychopathic illusion of «health invulnerability»: assessing psychopathy and health in the Cambridge Study in Delinquent Development (CSDD). *Rassegna Italiana di Criminologia*, XIX, 3, 185-197 https://doi.org/10.7347/RIC-032025-p185

Corresponding Author: Georgia Zara, email: georgia.zara@unito.it

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Guy Skinner was supported by the Wellcome Trust [306588/Z/23/Z].
The views expressed are those of the authors and not necessarily those of the Wellcome Trust.'

Received: 01.08.2025
Accepted: 02.09.2025
Published: 30.09.2025

Pensa MultiMedia
ISSN 1121-1717 (print)
ISSN 2240-8053 (on line)
doi10.7347/RIC-032025-p185

Abstract

Psychopathy is one of the most studied constructs in criminological and clinical psychology; it is a personality disorder that affects many areas of life and has far-reaching consequences for society and those within it.
The present study analysed data from the Cambridge Study in Delinquent Development (CSDD) by examining the relationship between psychopathy, as measured by the PCL:SV, and physical health, mental health, hospitalisations, disabling medical conditions and premature mortality among CSDD males. These conditions and events were measured using self-report and GP medical records.
The results suggest that psychopathy alone is not the main determinant of poor health outcomes or premature mortality, at least according to self-reported records. The CSDD males who were high on psychopathic traits were also those who engaged in antisocial lifestyles (e.g., heavy drinking, fighting after drinking, smoking, sexual promiscuity), which is not per se a sign of poor health; on the contrary, it may be a sign of physical strength and energy in adolescence and early adulthood.
Some interesting differences emerged between self-reported and GP-reported mental health: the CSDD males were less likely to report their problematic mental health conditions compared to the more accurate GP reports.
Due to the various forms of impairment that psychopathy can cause in a person's life and in society, further research into psychopathy in community samples is certainly needed.

Keywords: Psychopathic traits, mental physical health, mortality, PCL:SV, CSDD

Acknowledgements

This work is dedicated to our mentor, Professor David P. Farrington, who has guided us through many important professional and academic decisions. David was particularly interested in researching and assessing the effects of psychopathy on health and always supported any work that linked psychopathy to risk assessment. Sadly, he passed away while we were working with him on this project. We have completed this work to honour his memory and his outstanding achievements in psychological and criminological science.

Guy C. M. Skinner, Department of Public Health and Primary Care, University of Cambridge, United Kingdom | **Henriette Bergstrøm**, School of Science, University of Derby, United Kingdom | **Darrick Jolliffe**, University College London, United Kingdom | **David P. Farrington**, Institute of Criminology, University of Cambridge, United Kingdom | **Georgia Zara**, Department of Law, University of Turin, Turin, Italy

Behind the psychopathic illusion of «health invulnerability»: assessing psychopathy and health in the Cambridge Study in Delinquent Development (CSDD)

The Psychopathic Life

Psychopathy is one of the most misunderstood constructs in psychology and psychiatry. Psychopathy was conceptualised as a mental disorder in the past (Kraepelin, 1904; Maudsley, 1874; Prichard, 1835), and in contemporary clinical literature is seen as a personality disorder (Hare, 2003). However, psychopathy is still not explicitly included in the DSM-5 (American Psychiatric Association, 2013) (see Zara & Farrington, 2016, p. 239) and in the DSM-5-TR (2022), and any reference to psychopathy by antisocial personality disorder (Strickland et al., 2013) limits our understanding of the specific nature and essence of psychopathy by considering only the behavioural side of psychopathy (De Fazio, et al., 2016; Di Tella et al., 2024; Ogloff, 2006; Stanga et al., 2022).

According to Hare (2001), if one were to describe the world through the psychopathic lens, human beings would be divided into «givers and takers» (p. 11), with people high on psychopathic traits being «natural born takers» (Hare, 2001, p. 11). Empirical evidence suggests that self-grandiosity and a sense of omnipotence are key features in the maintenance of self-indulgence and self-entitlement in individuals high in psychopathic traits (Klipfel et al., 2017), such that anything is seen as possible and available for them.

Psychopathic individuals are usually able to identify victims to exploit and typically benefit from the co-operation of others without incurring significant costs (Book et al., 2021). What Reidy and colleagues (2015, p. 4) emphasise is that «psychopaths are dangerous in part because they are hybrid beings. They frequently make a positive first impression on others, rendering them adept at deception, manipulation, and outright physical aggression».

Since psychopathy is recognised as consisting of both personality (F1-Psychopathic Personality; F1-PP) and behaviour (F2-Psychopathic Behaviour; F2-PB) factors (Hare, 2003), the likelihood of a life unsuccess is not surprising. F1-PP consists of traits and symptoms related to the interpersonal and affective nature of psychopathy, such as being manipulative, emotionally detached, conning, and deceitful, while F2-PB includes the behavioural characteristics of the disorder, including impulsivity and antisocial behaviour.

People high on psychopathic traits compromise family relationships (Zara et al., 2024), are sexually and emotionally promiscuous (Benfante et al., 2024; Zara et al., 2021), are risk-takers (Snowden et al., 2017), live a parasitic lifestyle (Hare, 1996), endanger work security (Stewart et al., 2022), and carry out antisocial lives (DeLisi, 2016): all these features lead to malevolent and socially malicious behaviours (Di Tella et al., 2024; Paulhus & Williams, 2002).

There is evidence in the literature that such lifestyles and behaviours are detrimental to health (e.g., Skinner & Farrington, 2020). When health is impaired, the façade of grandiosity, that psychopaths in particular cultivate is jeopardised: when health is poor, the perception of the self as invincible crumbles.

In line with the available literature on this topic (e.g., Jonason et al., 2015; Mededovic & Kujacic, 2020), we agree that such effects should be understood within the framework of evolutionary psychology and suggest that a 'fast life-history strategy' manifested in short-term mating propensity, high impulsivity, decreased self-control, selfishness, and other manifestations of a generally antisocial lifestyle, may lead to poor health outcomes in the long term (Jonason et al., 2010, 2015; Sýkorová & Flegr, 2021). Such a strategy has been shown to successfully explain psychopathic traits and their correlates both theoretically and empirically (Horsten et al., 2022; Hurst & Kavanagh, 2017; Jonason et al, 2010; Lu & Chang, 2019; Zara et al, 2021). This evolutionary strategy is likely a response to, and is reinforced by, the expectation of poor health outcomes and early death (Nettle, 2010).

Psychopathy and Health Outcomes

Skinner and Farrington (2021) investigated how an antisocial personality would impact physical and psychological health. Their study used longitudinal data from the Cambridge Study in Delinquent Development (CSDD) (see the methodology section for details). Antisocial personality was explored in relation to physical and mental illnesses, disabling medical conditions and whether the person had ever been hospitalised. These conditions and events were measured both as self-reported medical history as well as through General Practitioner (GP) reported medical records. The results differed according to whether the medical history was measured using self-report or GP records. The only significant relationships between antisocial personality and self-reported medical history were whether they had ever been hospitalised ($p = 0.01$). For GP records on the other hand, there were more significant associations between antisocial personality and health outcomes, where antisocial personality was related to physical and mental illness as well as experiencing a disabling medical condition. Interestingly, for GP records, there was no significant relationship between antisocial personality and

hospitalisation. These results show the importance of measuring health outcomes using multiple methods, and also investigating whether other personality disorders can have similar effects and consequences.

The study of psychopathy was particularly important for research into its effects on health. Beaver et al. (2014) carried out a relevant study to specifically examine the relationship between psychopathic personality and health outcomes by analysing data from the Add Health Study. Logistic regressions controlling for relevant variables (e.g., imprisonment) found that psychopathic personality was significantly and positively related to a wide range of physical (e.g., diabetes, high blood pressure, high cholesterol, and migraines) and mental health (i.e., ADD/ADHD, anxiety, and depression) problems and issues.

Mededovic and Kujacic (2020) used a Serbian prison sample (n = 224) to test how the heterogenous construct of psychopathy would be associated with physical and/or mental health problems. Psychopathy was measured using the Hare Psychopathy Checklist - Revised (2003), which is a clear strength compared to earlier studies (Mededovic & Kujacic, 2020). Point-biserial correlation analyses showed that interpersonal traits were *negatively* related to physical health problems, but lifestyle and antisocial traits were *positively* related to physical health problems. Pearson correlation analysis showed that for mental health problems, it was only lifestyle and antisocial traits that were significantly and positively associated.

The differential relationships with health outcomes are also consistent with recent research on health behaviour (Debska et al., 2021). Debska et al. (2021) found in a Polish student sample that scores on the Boldness scale of the Triarchic Psychopathy Assessment were significantly and positively associated with scores on the Positive Mental Attitude Scale, while scores on the Disinhibition Scale were significantly and negatively associated with scores on the Health Behaviour Inventory and the Positive Mental Attitude Scale (Debska et al., 2021). The latter findings are perhaps not surprising, as it is generally recognised that mental health problems are likely to have a negative impact on physical health (Butler et al., 2020; Ohrnberger et al., 2017).

There are not many peer-reviewed papers on how psychopathy is related to mortality, but Jonason et al. (2015) conducted three related studies across three countries (USA, Australia, and the UK) on the relationship between dark triad personality traits and health, and their findings suggested that psychopathy is related to early death. Of most interest to the current paper are the results pertaining to psychopathy. Across the three studies, psychopathy was consistently related to poor outcomes. For example, psychopathy was significantly positively related to depression, anxious and avoidant attachment, and smoking and alcohol consumption. On the other hand, psychopathy was significantly and negatively related to physical health, emotional and psychological well-being, sunscreen use, and life expectancy (Jonason et al.2015). According to a recent study by Maurer et al. (2025), not all antisocial behaviours are equal when it comes to predicting long-term health outcomes. It appears that psychopathic traits in young people have a unique predictive power when it comes to premature mortality. The researchers observed that 33 of the total 332 participants died during a follow-up period (between 10 and 14 years): This corresponds to an observed premature mortality rate of 9.94%, which is significantly higher than the expected mortality rate for individuals of a comparable age (Maurer et al., 2025). In other words, the adolescents with the highest total PCL:YV scores had a higher premature mortality rate compared to the adolescents with low total PCL:YV scores (Forth et al. 2003).

Vaurio et al. (2018) carried out one of few studies on psychopathy and mortality; subsequently these researchers explored female psychopathy and mortality (Vaurio et al., 2019). They found that in a Finnish forensic context, being high on psychopathic traits (Hare Psychopathy Checklist-Revised score of 25 or above) significantly increased the risk of death compared to those who scored lower on psychopathic traits (PCL-R score below 25).

Interestingly, however, the study also found that a stay in a forensic institution increased mortality compared to a matched comparison group drawn from the male Finnish population.

In terms of causes of death, a high psychopathy group was more likely to die from "unnatural causes" (28%) compared to the low psychopathy group (17.42 %), and the trend was reversed for "natural causes" (high psychopathy = 15% versus low psychopathy = 23.03%). When rank ordering causes of deaths for the two groups, there were some differences between the groups. Those scoring 25 or above on the PCL-R were most likely to die from the following conditions/circumstances (in descending order): (1) intoxication (18.18 %), (2) lung disease or 'other accident' (both 13.64 %), (3) suicide or homicide (both 11.36%). Those scoring below 25 on the PCL-R were most likely to die of the following (in descending order): (1) cardiovascular disease (27.40%); (2) cancer, suicide, and intoxication (all 15.07%); (3) 'other disease' or 'other accident' (both 5.48%). In addition to informing about the mortality of those who score high on psychopathy, this study also provides valuable information about their health status. The main groups in the study (the high versus low psychopathy groups) were however drawn from a forensic (criminal) population. As highlighted by Skinner and Farrington (2020), such samples might not be representative of, nor generalisable to, a community population.

The Current Study

The emerging literature suggests that there are health costs associated with psychopathic traits (Beaver et al., 2014). Gatner et al. (2022) specifically examined the economic burden of psychopathic disorders in North America using a top-down approach to the cost of illness based on preva-

lence (Chapko et al., 2009). Their analysis showed that the costs of crime directly associated with psychopathy were significantly high, as expected; however, the high costs were also indirect, as psychopathy likely offsets other potential costs related to health care, job productivity, the justice system, and social welfare.

More specifically, those high on psychopathy are likely to live lives that are most often, than not, on the edge and 'fast paced', which could be an attempt to react to environmental and social challenges rather than being overwhelmed by them. The available empirical research appears to be in line with this theoretical framework, where psychopathic traits are associated with poor health outcomes, life unsuccess, and early death (e.g., Jonason et al., 2015; Vaurio et al. 2018; Zara et al., 2024). There is however an overall lack of research in this area, and there are some limitations in the past studies. For example, Beaver et al. (2014) used a specific scale of psychopathy that was developed for their data set, and while other studies have used thoroughly validated measures of psychopathy, these studies tend to use forensic samples (Mededovic & Kujacic, 2020). There is a research gap on psychopathy and health outcomes and mortality in a community setting. The aim of this study is therefore to answer the following research questions, based on the specific hypotheses listed below:

1. How are psychopathic traits related to physical health?
   - It is expected that psychopathy will be associated with poor physical health outcomes (e.g., Horsten et al., 2022; Jonason et al., 2010, 2015).
   - It is expected that F2-PB will be more strongly related to poor physical health outcomes than F1-PP based on past research by Mededovic and Kujajic (2020).
   - On a more exploratory basis, it is suggested that due to impression management (e.g., Hart et al., 2019) as well as past research (e.g., Skinner & Farrington, 2021), it is likely that there will be more significant relationships between psychopathy and GP recorded medical history versus psychopathy and self-reported history.
2. How are psychopathic traits related to poor mental health?
   - Because of past research on unsuccess in life (Jonason et al., 2010, 2015; Zara et al., 2024), it is expected that those higher on psychopathic traits will have comorbid mental health problems.
3. How are psychopathic traits related to mortality?
   - It is expected that psychopathy will be related to early death (e.g., Maurer et al., 2025)
   - It is expected that F2-PB will be associated with early mortality because of the previously found association between antisociality and premature death (e.g., Skinner & Farrington, 2020; Skinner et al., 2022).

CSDD Sample

The current investigation analyses data from the CSDD. As described elsewhere (e.g., Farrington, 2019), the CSDD is a prospective longitudinal study of delinquent and criminal behaviour in a community sample of 411 South London males that started in the early 1960s. These CSDD males have been followed across the life-course, from age 8 through to age 61 (Farrington 2021; Farrington & Jolliffe, 2022).

The CSDD received ethical approval from the Home Office, Cambridge Institute of Criminology, and the Ethics Committee of the Institute of Psychiatry, King's College London.

Health Data from the CSDD

GP Reported Health Data

At age 48, 304 men completed a medical interview for the research (89% of the 343 who had the core face to face social interview) and each was asked for consent for us to obtain their medical records from their GPs. Data were requested from every GP surgery where an individual had been registered, and full primary care data (paper records) from birth up to age 48 were returned for 264 men, 87% of those who completed the medical interview but only 77% of those with a social interview. As in previous research (Skinner & Farrington, 2021), the GP data were then coded into binary (Yes/No) variables. Physical illness categories were respiratory tract, cardiovascular, musculoskeletal, skin, allergic, gastro-intestinal and infectious illnesses. Severity was in part indicated by disabling medical conditions (any chronic disabling illness whether psychiatric or medical). Mental illness was indicated by psychological episodes and psychiatric inpatient admissions. Service use was indicated by outpatient admission for mental health problems, ever hospitalised as a medical inpatient, and surgical admissions.

Self-Reported Health Data

In social interviews, self reports of all illnesses that had occurred at ages 16–18, 27–32 and 43–48 were collected. Illnesses were coded into the same health categories as described above for the GP records, except for outpatient admission for mental health problems and surgical admissions, which were not asked about because of shortage of time in a wide ranging interview (Skinner et al., 2020). There were two separate hospitalisation variables: the number of hospital visits mentioned within social interviews conducted at ages 32 and 48, and a second ever hospitalised variable computed from the aforementioned medical interview. Disabling Medical Condition was also coded based on the following question at interview: 'Have ever been registered disabled under the disabled persons employment act or with a Local Authority or other organisations?'

Premature Mortality

Death records of the CSDD males were collected by Piquero and colleagues (2014), who obtained information about deaths up to 2010, at an average age of 57, from relatives during attempts to interview the CSDD men and their female partners and children. This information was supplemented by searches in the General Register Office, and 31 males were found to have died, at the average age of 42. To supplement and update these findings, Skinner and colleagues (Skinner et al., 2021) sent Freedom of Information Act requests to NHS Digital, asking them to disclose whether their records indicated whether an individual from the CSDD had died. All individuals recorded as deceased according to NHS Digital were then searched within the General Register Office's Death Registry, and death certificates were requested up to 2019. In total, 386 individuals were searched, because they had not emigrated up to the last interview at age 48. If they had not emigrated up to age 48, it was likely that they had not emigrated up to age 65. Premature death is operationalised as deaths up to age 65.

Psychopathy

Psychopathic traits were assessed as part of the in-person interview at age 48 using the Psychopathy Checklist: Screening Version (PCL:SV; Hart et al., 1995), which is the shorter version of the more comprehensive Psychopathy Checklist-Revised (PCL-R; Hare, 2003) and suitable to use with community samples (Hart et al., 1995). It consists of 12 items, each rated on a 3-point ordinal scale (0, 1, and 2) for a total score of 24 (Hart et al., 1995). The PCL:SV measures psychopathy based on two factors, which both have scores from 0 to 12. Factor 1 is a measure of psychopathic personality: F1-PP. Factor 2 is a measure of psychopathic behaviour: F2-PB. Factor 1 is related to the core personality characteristics and is composed of two facets, interpersonal (arrogant, deceitful, manipulative) and affective (deficient affective experience, lack of empathy), while Factor 2 is related to the lifestyle (impulsive, irresponsible) and antisocial (juvenile, adult antisocial behaviour) facets.

For this study, it was decided to analyse total psychopathy, Factor 1 (Psychopathic Personality) and Factor 2 (Psychopathic Behaviour) scores both as continuous variables and as dichotomised scores in light of previous studies (Farrington & Bergstrøm, 2018; Zara & Farrington, 2016; Zara et al., 2024). We also analysed, as continuous variables, the specific facets of Factor 1 (Interpersonal Facet 1, Affective Facet 2) and Factor 2 (Lifestyle Facet 3, Antisocial Facet 4).

Analytical Strategy

Continuous Data Analyses

Independent samples t-tests were conducted where psychopathy (total, F1, F2, Interpersonal Facet 1, Affective Facet 2, Lifestyle Facet 3, Antisocial Facet 4) are treated like continuous variables. Negative t-values indicate worse physical and mental health, and a greater likelihood of having been hospitalised and having a disabling medical condition.

Dichotomous Data Analysis

Odds Ratios were calculated using thresholds of 10 or more for high PCL:SV, F1-PP was 3+ and F2-PD was 5+. ORs above one indicate worse physical and mental health, and a greater likelihood of having been hospitalised and having a disabling medical condition.

Results

Continuous Analysis Results

Means, standard deviations, skewness, and internal consistency across the four facets, two factors and total scores of the PCL:SV in this sample are shown in Table 1.

Table 1. Means, Standard Deviations, Skewness, and Kurtosis of All Four Facet Scores, Factor 1, Factor 2 and Total PCL:SV in the CSDD Sample.

	F1-PP Score	F2-PB Score	Total PCL:SV Score	Interpersonal Facet 1 Score	Affective Facet 2 Score	Lifestyle Facet 3 Score	Antisocial Facet 4 Score
Mean	1.1612	2.3092	3.4704	.51	.65	.61	1.70
Standard Deviation	1.57654	2.60675	3.82873	.840	1.036	1.053	1.813
Skewness	1.538	1.300	1.374	1.823	1.695	1.988	.865
Kurtosis	2.013	.925	1.202	3.362	2.342	3.743	-.421

Note: n = 304. Reliability as measured by Cronbach's alpha = 0.77 across all four facets; F1-PP (Factor 1: psychopathic personality) = 0.75; F2-PB (Factor 2: psychopathic behaviour) = 0.94. PCL:SV = Psychopathy Checklist: Screening Version; CSDD = Cambridge Study in Delinquent Development.

Self-Reported Lifetime Health in the CSDD males

Table 2 reports the results of self-reported lifetime health based on independent samples t-tests where psychopathy (total, F1, F2, Interpersonal Facet 1, Affective Facet, Lifestyle Facet 3, Antisocial Facet 4) are treated as continuous variables. There were significant associations between total PCL:SV and self-reported hospitalisation and having a disabling medical condition. F1-PP was significantly associated with higher levels of self-reported hospitalisation. F2-PB was significantly associated with higher levels of self-reported disabling medical conditions. Affective Facet 2 was significantly associated with disabling medical conditions. Lifestyle Facet 3 was significantly associated with poorer physical and mental health, in addition to being more likely to having been hospitalised and having a disabling medical condition. Antisocial Facet 4 was significantly associated with having a disabling medical condition.

Table 2. Continuous Analysis: Self-Reported Lifetime Health in the CSDD Males

Psychopathy	Physical Health	Mental Health	Ever Hospitalised	Disabling Medical Condition
Total PCL:SV	t(302) = -1.180, *p* = 0.075 *n* = 304	t(302) = 0.368, *p* = 0.297 *n* = 304	t(296) = -1.980, *p* = 0.027* *n* = 298	t(302) = -3.073, *p* = 0.008** *n* = 304
F1-PP	t(302) = -0.554, *p* = 0.514 *n* = 304	t(302) = 0.268, *p* = 0.444 *n* = 304	t(296) = -1.089, *p* = 0.039* *n* = 298	t(302) = -2.404, *p* = 0.131 *n* = 304
F2-PB	t(302) = -1.399, *p* = 0.063 *n* = 304	t(302) = 0.378, *p* = 0.304 *n* = 304	t(296) = -2.246, *p* = 0.075 *n* = 298	t(302) = -3.051, *p* = 0.007** *n* = 304
Interpersonal Facet 1	t(302) = -0.171, *p* = 0.597 *n* = 304	t(302) = 0.206, *p* = 0.816 *n* = 304	t(296) = -0.450, *p* = 0.368 *n* = 298	t(302) = 0.711, *p* = 0.208 *n* = 304
Affective Facet 2	t(302) = -0.704, *p* = 0.168 *n* = 304	t(302) = 0.242, *p* = 0.392 *n* = 304	t(296) = -1.290, *p* = 0.087 *n* = 298	t(302) = -4.327, *p* = <0.001*** *n* = 304
Lifestyle Facet 3	t(302) = -1.773, *p* = 0.010** *n* = 304	t(302) = 1.050, *p* = 0.044* *n* = 304	t(296) = -2.351, *p* = 0.006** n = 298	t(302) = -2.739, *p* = <0.001*** *n* = 304
Antisocial Facet 4	t(302) = -0.981, *p* = 0.316 *n* = 304	t(302) = -0.065, *p* = 0.462 *n* = 304	t(296) = -1.856, *p* = 0.749 *n* = 298	t(302) = -2.783, *p* = 0.050* *n* = 304

Note: PCL:SV = Psychopathy Checklist: Screening Version; CSDD = Cambridge Study in Delinquent Development. F1-PP (Factor 1: psychopathic personality); F2-PB (Factor 2: psychopathic behaviour).

GP-Reported Lifetime Health

Table 3 reports the results of GP-reported lifetime health in the CSDD males based on independent samples t-test, where psychopathy (total, F1, F2, Interpersonal Facet 1, Affective Facet, Lifestyle Facet 3, Antisocial Facet 4) are treated as continuous variables. Total PCL:SV was significantly associated with greater GP-reported hospitalisations and disabling medical conditions. Similarly, F1-PP and F2-PB were also associated with greater GP-reported hospitalisations and disabling medical conditions. Interpersonal Facet 1, Affective Facet 2, Lifestyle Facet 3 and Antisocial Facet 4 were all significantly associated with poorer mental health. Affective Facet 2, Lifestyle Facet 3 and Antisocial Facet 4 were also significantly associated with being more likely to have a disabling medical condition.

Table 3. Continuous Analysis: GP-Reported Lifetime Health

Psychopathy	Physical Health	Mental Health	Ever Hospitalised	Disabling Medical Condition
Total PCL:SV	t(261) = -0.919, *p* = 0.252 *n* = 263	t(261) = -3.945, *p* = <0.001*** *n* = 263	t(261) = -0.615, *p* = 0.131 *n* = 263	t(261) = -2.316, *p* = <0.001*** *n* = 263
F1-PP	t(261) = -0.883, *p* = 0.268 *n* = 263	t(261) = -3.645, *p* = <0.001*** *n* = 263	t(261) = -0.295, *p* = 0.770 *n* = 263	t(261) = -2.285, *p* = 0.004** *n* = 263
F2-PB	t(261) = -0.798, *p* = 0.244 *n* = 263	t(261) = -3.483, *p* = <0.001*** *n* = 263	t(261) = -0.709, *p* = 0.218 *n* = 263	t(261) = -1.972, *p* = <0.001*** *n* = 263
Interpersonal Facet 1	t(261) = -0.304 *p* = 0.562 *n* = 263	t(261) = -1.899 *p* = 0.001*** *n* = 263	t(261) = 0.443 *p* = 0.944 *n* = 263	t(261) = -1.259 *p* = 0.122 *n* = 263
Affective Facet 2	t(261) = -1.051 *p* = 0.297 *n* = 263	t(261) = -3.838 *p* = <0.001*** *n* = 263	t(261) = -0.767 *p* = 0.198 *n* = 263	t(261) = -2.359 *p* = <0.001*** *n* = 263
Lifestyle Facet 3	t(261) = -0.558 *p* = 0.141 *n* = 263	t(261) = -3.453 *p* = <0.001*** *n* = 263	t(261) = -0.701 *p* = 0.201 *n* = 263	t(261) = -1.726 *p* = <0.001*** *n* = 263
Antisocial Facet 4	t(261) = -0.811 *p* = 0.359 *n* = 263	t(261) = -2.965 *p* = 0.008** *n* = 263	t(261) = -0.609 *p* = 0.199 *n* = 263	t(261) = -1.811 *p* = 0.011** *n* = 263

*Note:*PCL:SV = Psychopathy Checklist: Screening Version.
F1-PP (Factor 1: psychopathic personality); F2-PB (Factor 2: psychopathic behaviour).

Premature mortality in the CSDD males

Table 4 reports the results of premature mortality in the CSDD males based on independent samples t-tests, where psychopathy (total, F1, F2, Interpersonal Facet 1, Affective Facet, Lifestyle Facet 3, Antisocial Facet 4) are treated as continuous variables. There were no significant associations between Total PCL:SV, F1-PP or F2-PB and premature mortality. Affective Facet 2 and Lifestyle Facet 3 were significantly associated with premature mortality.

Table 4. Continuous Analysis: Premature Mortality

Psychopathy	Premature Mortality
Total PCL:SV	t(295) = -1.660, *p* = 0.098 *n* = 297
F1-PP	t(295) = -0.843, *p* = 0.400 *n* = 297
F2-PB	t(295) = -1.918, *p* = 0.056 *n* = 297
Interpersonal Facet 1	t(295) = 0.727, *p* = 0.244 *n* = 297
Affective Facet 2	t(295) = -1.889, *p* = <0.001*** *n* = 297
Lifestyle Facet 3	t(295) = -2.594, *p* = 0.006** *n* = 297
Antisocial Facet 4	t(295) = -1.264, *p* = 0.051 *n* = 297

*Note:*PCL:SV = Psychopathy Checklist: Screening Version.
F1-PP (Factor 1: psychopathic personality); F2-PB (Factor 2: psychopathic behaviour).

Dichotomous Analysis Results

In all the following dichotomous analyses, Odds Ratios were calculated using thresholds of 10 or more for high PCL:SV, 3 or more for F1-PP, and 5 or more for F2-PD. Descriptively, 24 individuals scored high on PCL:SV, 42 for F1-PP, and 40 for F2-PD.

Self-Reported Lifetime Health

Table 5 reports the results of self-reported lifetime health in the CSDD males based on Odds Ratios. Total PCL:SV, F1-PP and F2-PB were also significantly associated with greater self-reported levels of disabling medical conditions.

Table 5. Dichotomous Analysis: Self-Reported Lifetime Health

Psychopathy	Physical Health	Mental Health	Ever Hospitalised	Disabling Medical Condition
Total PCL:SV	OR = 1.885 (0.749-4.740) *n* = 304	OR = 0.696 (0.156-3.094) *n* = 304	OR = 1.774 (0.791-3.982) *n* = 298	OR = 5.198** (1.629-16.592) *n* = 304
F1-PP	OR = 1.064 (0.553-2.046) *n* = 304	OR = 0.852 (0.280-2.588) *n* = 304	OR = 1.485 (0.791-2.790) *n* = 298	OR = 3.689* (1.225-11.106) *n* = 304
F2-PB	OR = 1.814 (0.865-3.802) *n* = 304	OR = 0.640 (0.184-2.223) *n* = 304	OR = 1.384 (0.733-2.611) *n* = 298	OR = 3.978* (1.318-12.004) *n* = 304

Note:PCL:SV = Psychopathy Checklist: Screening Version.
F1-PP (Factor 1: psychopathic personality); F2-PB (Factor 2: psychopathic behaviour).
*p =/< 0.05; **p =/< 0.01; ***p =/< 0.001

GP-Reported Lifetime Health

Table 6 reports the results of GP-reported lifetime health based on Odds Ratios. Total PCL:SV, F1-PP and F2-PB were all significantly associated with higher GP-reported mental health issues and disabling medical conditions.

Premature Mortality in the CSDD males

Table 7 reports the results of the CSDD males premature mortality based on Odds Ratios. There were no significant relationships between psychopathy and premature mortality.

Table 6. Dichotomous GP-reported Lifetime Health

Psychopathy	Physical Health	Mental Health	Ever Hospitalised	Disabling Medical Condition
Total PCL:SV	OR = 1.100 (0.462-2.614) *n* = 263	OR = 3.494** (1.437-8.497) *n* = 263	OR = 1.460 (0.326-6.544) *n* = 263	OR = 2.970* (1.258-7.010) *n* = 263
F1-PP	OR = 1.562 (0.770-3.166) *n* = 263	OR = 3.039*** (1.537-6.007) *n* = 263	OR = 1.809 (0.523-6.261) *n* = 263	OR = 2.218* (1.101-4.467) *n* = 263
F2-PB	OR = 1.257 (0.622-2.537) *n* = 263	OR = 2.418* (1.220-4.793) *n* = 263	OR = 1.699 (0.490-5.891) *n* = 263	OR = 2.431* (1.197-4.937) *n* = 263

*Note:*PCL:SV = Psychopathy Checklist: Screening Version.
F1-PP (Factor 1: psychopathic personality); F2-PB (Factor 2: psychopathic behaviour).
*p =/< 0.05; **p =/< 0.01; ***p =/< 0.001

Table 7. Dichotomous Premature Mortality

Psychopathy	Premature Mortality
Total PCL:SV	OR = 3.060 (0.782-11.964)
F1-PP	OR = 1.605 (0.419-6.146)
F2-PB	OR = 2.598 (0.751-8.986)

Note: PCL:SV = Psychopathy Checklist: Screening Version. F1-PP (Factor 1: psychopathic personality); F2-PB (Factor 2: psychopathic behaviour).
*p =/< 0.05; **p =/< 0.01; ***p =/< 0.001

Discussion

Psychopathy and Health Outcomes

This study investigated the relationship between psychopathy, measured by PCL:SV, and physical health, mental health, hospitalisations, disabling medical conditions and premature mortality in the CSDD males. Assessing these aspects is crucial for understanding the impact of psychopathy on the functioning of daily life beyond social and antisocial behaviour.

Interestingly, despite theoretical grounding (e.g., Beaver et al., 2014; Reidy & Bogen, 2022; Vaurio et al., 2018, 2022), the findings in the current analyses suggest that no significant associations were found between psychopathic traits, as measured with PCL:SV, and physical health. One interpretation of these results can be that less healthy men were involved in a less antisocial lifestyle because they were unable to engage in risky activities due to their poor health, and this might have had implications for our analyses in relation to psychopathy: Individuals with poor health may be more inclined to restrain themselves, less able to manipulate others and engage in deviant and promiscuous activities. Another interpretation is that there may be differences between the CSDD males who are high in total PCL:SV, F1-PP or F2-PB and those who actually engage in an antisocial lifestyle (e.g., heavy drinking, fighting after drinking, smoking, sexual promiscuity) associated with physical health, as previous research showed (Shepherd et al., 2002, 2009). Paradoxically, these behaviours are not *per se* a sign of poor health; on the contrary, they can even be a sign of physical strength and energy in youth and middle age, as shown in this study, while in the long term they are likely to have the worst effects by weakening physical health.

The findings of this study suggest that psychopathy alone is not the main determinant of poor health outcomes or premature mortality. If we consider previous findings suggesting that antisocial behaviour and offending are associated with poorer health outcomes, it may well be that it is the likelihood of antisocial and violent behaviour that is associated with poor health outcomes rather than high psychopathic traits *per se*. In a sense, psychopathy may instead be a key factor in poor health in people who encounter psychopathic individuals and fall under the spell of their superficial allure, which masks manipulativeness and selfishness. However, further studies should specifically investigate the indirect effects of psychopathy on the health of partners and friends, who are the direct victims.

Despite no significant associations between psychopathy and physical health being identified in our analyses, our results do highlight consistent statistically significant associations between psychopathy and disabling medical conditions. This association was present regardless of whether disabling medical conditions were self-reported or GP-reported, and whether psychopathy was measured continuously and dichotomously as high/low.

Although psychopathy may not be associated with poor physical health across the life-course, one repercussion of psychopathy may be the risk taking and fear aversion associated with these personality profiles. These predispositions may lead to an increased dysregulated lifestyle and risk-taking behaviours, which results in more catastrophic injuries when compared to individuals with lower levels of psychopathy. In particular, the affective component was significantly associated with disabling medical conditions, and lifestyle was significantly associated with poorer physical and mental health. As expected, antisociality was significantly associated with health impairment, as shown in Table 3. This may be one explanation as to why individuals with higher total PCL:SV, P1-PP and P2-PB were associated with significantly higher levels of reported hospitalisations and disabling medical conditions, but not poorer physical health in general.

A possible indirect repercussion of psychopathy lies in the core of it: individual with high psychopathic traits exhibit a sense of self-aggrandising (Cooke et al., 2012; Prosser et al., 2018) which may lead to regarding themselves as invulnerable and untouchable by anything, illnesses included. However, psychopathic individuals in this study reported more hospitalisations and disabling medical conditions. Their increased willingness to take risks and their lack of fear may explain the catastrophic injuries these people suffer, and thus the disabling medical conditions, even if they reject the need for hospitalisation, which is seen as compromising their sense of invulnerability. These reactions are easier in younger years, while they are more difficult to pursue when older.

There were some interesting differences that emerged between self-reported and GP recorded health in line with our expectations and previous research. For example, there were some differences between self-reported and GP-reported mental health. Psychopathy, when measured dichotomously, was not significantly associated with mental health difficulties when self-reported. However, total PCL:SV, F1-PP and F2-PB were all significantly associated with higher levels of mental difficulties according to GP records. The significant association between psychopathy and mental health difficulties is not surprising, considering our expectations and past literature (Skinner & Farrington, 2020), but this was only found for GP reported life-time health.

The GP's reports are likely to be a more accurate description of a person's mental health condition than the description of the lay person suffering from that condition, not least because of the possibility that the mental health difficulties may not be recognised as problematic. Furthermore, it is also important to consider the likelihood that individuals with marked psychopathic traits will deny mental health problems of any kind. Looking more closely at the facets of psychopathy, the results suggest that interpersonal (Facet 1), affective (Facet 2), lifestyle (Facet 3) and antisocial reality (Facet 4) in particular are all significantly associated with poorer mental health, and also significantly associated with a higher likelihood of health impairment (with the exception of the interpersonal facet), according to GPs' reports (see Table 3 for details).

Psychopathy can in fact be associated with low reactivity to stress and punishment cues (Verona et al., 2004), to high anxiety and impulsivity (Skeem et al., 2007), which show the complexity behind the full spectrum of its manifestations (Di Tella et al., 2024; Stanga et al., 2022). Despite the current debate of whether psychopathy should be considered a mental disorder (Wakefield et al., 1992) or a life history strategy of social exploitation (Harpending & Sobus, 1987; Pullman et al., 2021), it is certainly important to look at the consequences psychopathy has for the people themselves, and for society (Reidy & Bogen, 2022). Indeed, «given the morbidity of psychopathy and its negative impact on society, it is difficult to imagine that any mental disorder, save perhaps schizophrenia, could be considered a greater public health concern» (Hart & Hare 1996, p. 131).

It should be noted, however, that non-significant findings are as important to report and understand as statistically significant ones, as they fully elucidate the development and outcomes of the psychopathy construct, and the differences when psychopathy is assessed as a whole disorder or as factors and facets, dichotomously or continuously (also discussed in Zara et al., 2024).

Psychopathy and Mortality

Non-significant findings were also found for psychopathy and mortality. While psychopathic traits are associated with a disabling medical condition, total psychopathy scores did not appear to have an association with early death.

These findings contrast with previously reported findings. However, there are several potential reasons for these differences. First, the previous findings by Vaurio et al. (2018) were based on a forensic sample in Finland, and Vaurio et al. (2018) found that psychopathy was nonlinearly related to early death. This nonlinear relationship, where only the highest scores have been associated with outcomes of interest, has also been found in other studies (e.g., Farrington & Bergstrøm, 2018). Since the current analyses were from the CSDD, which involves a community sample, it might be that the level of psychopathy does not reach the pathological cut-off for this effect. Second, based on Skinner et al. (2022) it could be that it is the incarceration experience to have influenced the effect in other studies (e.g., Vaurio et al., 2018). This explanation is supported by the previously mentioned results on impulsivity by Farrington and Aguilar-Carceles (2023). In the CSDD, the incidence of incarceration was very low, as most of the affected CSDD offenders were sentenced to alternative measures to prison, which may explain the lack of association between psychopathy and early mortality. However, when looking at the affective and lifestyle facets, findings show some significant association with premature mortality (see Table 4 for details).

It is important to bear in mind that the impairments that psychopathy can cause in a person's life can take various forms, which are not necessarily the most alarming, since psychopathic people protect themselves under the spell of the invulnerability and omnipotence attributed to their self. They prefer to deny any weaknesses, even if this could jeopardise their health. This makes psychopathy a controversial, paradoxically self-hostile disorder.

Conclusion, Limitations, and Suggestions for Future Research

The current paper shows that psychopathic traits were linked with hospitalisations and disabling medical conditions but were not significantly associated with poorer physical health in general or early mortality. Some significant results show a significant association between psychopathy and mental health difficulties according to GP records. This is not surprising, as that GP's understanding of the state of mental health is certainly more accurate than a layperson's description, especially if the person has strong psychopathic traits and is influenced by a self-aggrandising spell.

There are some limitations to this study that should be noted. While the CSDD is recognised for its methodological strengths and diversity of data (Farrington & Bergstrøm, 2022; Farrington et al., 2023), the available medical information is limited to GP records or self-reports. Future research should endeavour to obtain complete clinical records of health conditions at different stages of life in order to assess possible serious adverse changes in the quality of physical and mental health. A further limitation is that these results relate to Generation 2 of the CSDD, in which only males participated; it may be interesting to examine the impact of distinct psychopathic traits on physical and mental health in a female community sample.

In light of these findings, further analysis is needed to understand in detail how psychopathic personality (P1-PP) and psychopathic behaviour (P2-PB), as well as the affective, interpersonal, lifestyle and antisocial facets of psychopathy, specifically and differentially influence the quality of health (mental and physical), affect medical

condition and impact on the mortality risk of individuals over their lifetime.

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