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Quality of Life in Different Male Offender Groups – Possible Underlying Effects of Intelligence and Psychopathic Tendencies

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Abstract

The role of psychopathic tendencies and intelligence on Quality of life (QoL) ratings in different male offender groups was explored. Participants were 199 Swedish males with a history of criminality at age 11-14 and matched controls from the longitudinal project Young Lawbreakers as Adults. Based on registered crimes prior to 15 years and up to 34 years of age, four criminal groups were yielded: non-criminals (NC); adolescence-limited (AL); persistent (P); and adult-onset (AO). The QoL construct consists of the following dimensions: Self-perception, Psychological health, Family, Children, Education, Work, and Finances, all self-rated at age 38-41 when also psychopathic tendencies were clinically assessed using the Psychopathy Check List (PCL). The P group reported lower QoL in all dimensions compared to the NC and AL groups and lower QoL regarding Family and Education than the AO group. When controlling for psychopathic tendencies, the group differences in QoL regarding Self-perception and Children was no longer significant. Generally, individuals with higher IQ scores rated higher QoL than individuals with lower IQ scores. IQ however did not explain the divergence in QoL between offender groups. Psychopathic tendencies are suggested to overtake the importance of group belonging regarding the QoL dimensions of Self-perception and Children.

Keywords: Criminality; Family; Intelligence; Offender Groups; Psychopathy; Quality of Life; Self-Perception

Introduction

In a previous study, individuals with psychopathic tendencies reported their quality of life (QoL) significantly lower than individuals without psychopathic tendencies [1]. Additional contemporary work has shown similar findings among violent offenders and individuals with personality disorders, i.e. they rate poor subjective QoL [2,3]. It is also known that psychopathic personality traits are associated with a wide range of negative health outcomes [4]. Our understanding of psychopathy, a personality disorder with very poor treatment prognosis, may be enriched by improving the insights of how individuals with psychopathic tendencies perceive their QoL [5]. Thus, shedding light on how individuals with psychopathic tendencies rate their QoL may gain entrance into where resources of more successful areas of treatment can be placed for this hard to treat group. Treatments aimed at improving QoL have shown to be an effective choice in other areas of research for individuals whose psychopathology is not affected by other routine treatment methods [6,7]. Since previous research have shown that individuals with psychopathic tendencies self-rate poorer QoL compared to individuals without those traits, this point to an area in these individuals' lives that might have some potential for improvement [1]. Thus, rather than focusing on changing the core traits of psychopathy, the emphasis may be placed on improving their QoL. This incorporates treatment that takes the 'whole individual's well-being' into account and might thus boost motivation to enter and stay in treatment since it is based on the individual's self-expressed view of his or her life quality. Bouman and colleagues express that research needs to focus on establishing how subjective well-being influences crime desistance and expects that working to improve subjective QoL may serve as a protective role in this context [3].

Psychopathic personality is characterized by interpersonal, affective and behavioral deficits, which are features believed to remain reasonably stable across a criminal career [8-11]. Findings show that psychopathic traits become less profiled only at higher age and it was suggested that there may be ways to devise interventions to enact these changes at an earlier stage in life [12]. Improving treatment for this group of offenders is of vital importance since individuals with psychopathic tendencies are known to be overrepresented among criminals and likely to become recidivists [13-15] accounting for a large proportion of committed crimes [16].

The present study aims at further our understanding of criminals' subjective view on quality of life and its correlates. Individual patterns of criminal activity over time differ between offenders. Charting distinct developmental pathways of criminal behavior has shown to be beneficial in understanding shapes and trends in offender activity and meaningful in furthering knowledge regarding correlational and associated risk factors to antisocial behavior [17-19]. For instance, show that persistent offenders' psychopathy scores were higher than adolescence-limited offenders while non-offender scores were lower than both the persistent and adolescence-limited groups of offenders [20]. To explore if there are systematic differences between offender groups in life dimensions such as "work careers" and "intimate relationships" are interesting but unanswered questions [21]. Little attention has been given to whether persistent offending is related to other domains of life, such as quality of life. Thus, this is a question attempted to be explored in the current study [22].

Further, psychopathy as a neurocognitive impairment has been discussed. More specifically, the question about its link to intelligence is often raised. Research concerning this issue has led to some contradictory findings. Cleckley and Hampton and colleagues, argue that individuals with psychopathic traits have superior general intelligence, while Farrington reported findings indicating the reverse: that high PCL scores are linked to low intelligence [23-25]. Overall, additional contemporary researchers have found the relationship between intelligence measures and PCL scores to be generally weak, leaving us with little evidence to believe that individuals with psychopathic tendencies possess superior intelligence [26,27]. Yet, contrary to the previously mentioned researchers, others have found significant relationships between *some* aspects of intelligence, such as verbal abilities, and emotional intelligence [28,29], and total PCL scores. Johansson and Kerr [30] for instance found that higher IQ, particularly verbal intelligence, meant an earlier start in violent crime. Thus, whether one investigates aspects of or overall intelligence, total psychopathy scores, or specific PCL items, the literature findings seem to diverge even more [27,31,32].

Because of the seemingly entangled relationships between IQ, psychopathy and quality of life, one aim in the current study is to explore the role of general intelligence on how individuals perceive their quality of life. Furthermore, and based on the previous research presented above, that individuals with higher psychopathy traits experience lower life quality and are over-represented among persistent offenders, the purpose of the present study is to elucidate possible differences between offender groups in these areas of life. Thus, the aims of the present study are to explore (1) possible differences in self-rated quality of life (QoL) between male offender groups; and (2) the possible role of psychopathic tendencies and level of intelligence, respectively, on differences in subjective QoL-ratings as related to male offender groups.

Material and Methodology

Subjects

Within the original longitudinal project 'Young Lawbreakers as Adults' (YLA) in Stockholm, initiated in 1956 (n = 287 boys aged 11–14), 199 subjects were followed up 27 years later [33]. Of these, 133 boys had committed at least one registered crime during the period from 11–14 years of age. A matched (in respect to age, socio-economic group, family type and living area) control group included 66 boys with no registered crimes. At the time of the follow-up in 1984–1986, the males were between 38 and 41 years old. They were compensated with a modest remuneration after the completion of screening inventories and interviews. Subjects included in the present study are those with complete information on all the variables studied (n = 190). Because a relatively large group of men did not have any children a restricted sample was included in some of the analyses (n = 168). Longitudinal studies like this one are scarce. The YLA project has resulted in more than thirty publications over the years, but the research question on quality of life as related to psychopathic tendencies and intelligence in offender groups had not yet been addressed. This rich and informative data material is still available for various research projects, as it was for our present research project.

Ethics

The participants gave informed consent to participate in the study (and their parents at the first data collection). Responsible was the scientific leader group of the longitudinal project YLA. Ethical approval was given by the Swedish Data Inspection Board (Dnr 879-94; Dnr 647-96).

Measures

The Psychopathy Check List (PCL) at age 38–41: In the follow-up, the PCL was applied to clinically assess psychopathic tendencies. In its current form, the PCL consisted of a 20-item rating scale that is completed by clinicians based on a semi-structured interview together with file reviews that include family history data [34]. Each item is scored on a 3-point scale which indicates to what degree

the item corresponds to characteristics displayed by the individual: 0 = absent, 1 = maybe/in some respect, 2 = present. The items reflect affective, interpersonal and behavioral features that are the core of psychopathic personality disorder [23,34]. The validity of the PCL has been established in cross-cultural populations and its psychometric properties are well validated in adult male populations [35-37]. In the present study, a short version including 13 of the original 20 items of the PCL was used with a high internal consistency reliability and an inter-rater reliability that was high ($r = 0.85$ $p < 0.001$) based on independent ratings by a second psychologist for 19 of the subjects [33,38]. The decision to only use 13 items was based on the psychologists' considerations of items being ratable on the basis of the semi-structured in-depth interview performed [33].

Self-reported Quality of Life (QoL) at age 38–41: In a semi-structured interview, participants were asked to rate their perceived QoL in areas concerning *Self-perception*, *Psychological situation*, *Family* (wife/cohabitant/women), and *Children* (contact with children), *Education*, *Work* and *Finances*, [1]. Each QoL area was measured on a 7-degree scale with the verbal end-points 1 = *major difficulties* to 7 = *very satisfactory*, or 1 = *seriously uncomfortable* to 7 = *very comfortable*.

Intelligence at age 11-14: A Terman Merril test was used, a standard intelligence test at the time, which indicates levels of intelligence, related to age (intelligence quote, IQ) [39]. This was administered when the subjects were between 11 to 14 years old.

Procedure

The PCL and QoL measures were conducted as parts in an approximately 3-hour long semi-structured in-depth face-to-face interview. For quality assurance, trained interviewers, psychologists by profession, performed and audio-taped all the interviews [33]. Then the assessments of the PCL were scored by one of the psychologists based on the information on the taped interview. A second independent psychologist rated the interview scales for 19 interviews and made the ratings of psychopathy for the same subjects. The ratings were blind considering criminal activity. Inter-rater reliability for the two instruments was relatively high (r= 0.89, $p < 0.001$; and r= 0.85, $p < 0.0001$) [33].

Criminality

Based on registered crimes between ages 11-14 years up until 34 years of age, the following four criminal groups were theoretically created: Non-criminal group (NC): no registered crime up to age 34 (n=58); Adolescence-limited crime group (AL): registered crimes up to 19 years of age (n=93); Persistent crime group (P): registered crimes in adolescence and adulthood (n=31); and Adult-onset crime group (AO): registered crimes only at ages 20-34 years (n=8).

Criminality prior to age 15 refers to the number of registered crimes of first, second and third degree. Crimes of first degree would have led to a fine if the males had been over 15 years of age. Second and third degree crimes would have led to imprisonment and imprisonment for at least six months respectively. Criminality between ages 16 and 34 refers to the number of registered crimes of different types: violent crimes, narcotics crimes, fraud, theft, traffic crimes and other crimes.

Data treatment/Statistical analyses

First, variables were screened for normality, linearity, outliers and multicollinearity. Pearson's correlation coefficients were used to examine associations between quality of life and psychopathic tendencies, and between quality of life and intelligence. One-way ANOVAs with Tukey's post hoc test were then conducted to test differences in self-rated quality of life, assessed psychopathic tendencies and intelligence scores between different offender groups. In order to investigate whether psychopathic tendencies or intelligence might explain group differences in quality of life, psychopathic tendencies and intelligence were included as covariates in separate ANCOVAs. All the analyses were conducted using the Statistical Package for the Social Sciences (SPSS).

Results

Descriptives

Registered types of crime for the offender groups are presented in Table 1. As shown in the table, the AL group primarily committed crimes of first and second degree prior to age 15, but also of third degree. The P group to the greatest extent had committed crimes of second degree prior to age 15, but they also committed crimes of first and third degree. In the ages of 16 to 19 years, these males had been registered for all included types of crimes, with theft, traffic crimes, other crimes and violent crimes being the most commonly registered crime types. They had also started as young lawbreakers – and all continued with criminal activity over the life span. In adulthood they had been registered for all of the different types of crimes included, whereas males in the AO group had been registered for traffic crimes, violent crimes, fraud and other crimes.

Correlations between PCL versus IQ scores and QoL variables are presented in Table 2. Psychopathy scores were significantly negatively associated with all quality of life dimensions. Thus, higher scores on psychopathy were associated with lower self-rated quality of life. IQ was significantly positively related to the quality of life dimensions Education, Work and Finances. Hence, higher IQ scores were related to higher self-rated QoL. In the present study, PCL and IQ scores were not correlated (r = -.06, ns).

	Adolescence-limited (n=93)	Persistent (n=31)	Adult-onset (n=8)
Prior to age 15			
1st degree crimes [a]	45 (48.4)	13 (41.9)	
2nd degree crimes [b]	46 (49.5)	24 (77.4)	
3rd degree crimes [c]	26 (28.0)	12 (38.7)	
Age 16-19			
Violent crimes	0	8 (25.8)	
Narcotics crimes	0	3 (9.7)	
Fraud	0	4 (12.9)	
Theft	0	13 (41.9)	
Traffic crimes	0	12 (38.7)	
Other crimes	0	10 (32.3)	
Age 20-34			
Violent crimes		18 (58.1)	1 (12.5)
Narcotics crimes		12 (38.7)	0
Fraud		16 (51.6)	1 (12.5)
Theft		22 (71.0)	0
Traffic crimes		20 (64.5)	4 (50.0)
Other crimes		21 (67.7)	3 (37.5)

Note: *a* = crimes that would have lead to a fine if the perpetrator had been over 15 years of age; *b* = crimes that would have lead to imprisonment if the perpetrator had been over 15 years of age; *c* = crimes that would have lead to imprisonment for at least 6 months if the perpetrator had been over 15 years of age

Table 1: Frequencies (and percentages) of registered crime types in male offender groups

	QoL						
	self-perception	Psychological situation	Family	Children [a]	Education	Work	Finances
PCL	-.41***	-.52***	-.61***	-.53***	-.37***	-.34***	-.46***
IQ	.05	.13	.10	.05	.27***	.26***	.15*

Note: *a* = only 168 of the informants had children; Sign level: * $p < .05$; *** $p < .001$

Table 2: Correlations between psychopathy (PCL) and intelligence (IQ) scores versus all Quality of Life (QoL) variables for a group of male subjects (n=190)

Psychopathic tendencies and IQ in the four offender groups

Psychopathy scores varied for the offender groups (Table 3). Males in the P group had significantly higher psychopathy scores as compared to the NC and the AL groups. Furthermore, males in the AO group had higher psychopathy scores than the NC group. The offender groups also varied in IQ (Table 3). The P group had lower mean scores on IQ than the NC and AO group subjects.

	Non-criminal (NC) (n=58)	Adolescence-limited (AL) (n=93)	Persistent (P) (n=31)	Adult-onset (AO) (n=8)	F	p	*Post hoc* test
PCL	3.16	3.97	10.68	8.88	14.05	<.001	NC, AL<P; NC<AO
IQ	111.62	106.26	100.52	117.13	4.43	<.01	P < NC, AO

Table 3: Mean psychopathy (PCL) and intelligence (IQ) scores by male offender groups. *F* ratio for one-way analysis of variance (ANOVA) with significance level and post hoc test ($p<0.05$) for subgroup comparisons (Tukey)

Psychopathic tendencies and intelligence as possible explanations of offender group differences in quality of life?

There were significant differences between offender groups with respect to QoL (Table 4). The P group reported lower quality of life in all dimensions compared with the NC and AL groups. The P group also reported lower quality of life regarding Family and Education than the AO group.

To examine whether psychopathic tendencies might explain group differences in QoL, psychopathy was entered as a covariate in the analyses (Table 4). Psychopathy was significantly associated with all QoL dimensions. Furthermore, the group differences in the QoL dimensions Self-perception and children disappeared when psychopathy was controlled for.

Similarly, to test whether IQ might explain group differences in QoL, IQ was entered as a covariate in the analyses (Table 4). IQ was only entered as a covariate in the analyses of the QoL dimensions Education, Work, and Finances, since these were the only dimensions significantly related to IQ. Even though the analyses showed that IQ was significantly associated with the QoL dimensions Education and Work, the significant group differences in QoL remained significant. Thus, IQ did not explain the differences in QoL between the offender groups.

QoL	Non-criminal (NC)	Adolescence-limited (AL)	Persistent (P)	Adult- onset (AO)	F	p	*Post hoc*
self-perception	3.89	3.84	3.03	3.87	6.64	0.00	P<NC,AL
Adjusted for PCL	3.78	3.78	3.34	4.08	2.32	0.08	
psychological situation	3.81	3.56	2.74	3.50	10.68	0.00	P<NC,AL
Adjusted for PCL	3.67	3.49	3.11	3.75	3.55	0.02	
Family	4.19	3.94	2.52	4.00	16.38	0.00	P<NC,AL,AO
Adjusted for PCL	4.00	3.83	3.10	4.40	6.67	0.00	
Children [a]	4.40	4.31	3.45	3.75	6.24	0.00	P<NC,AL
Adjusted for PCL	4.26	4.25	3.94	4.08	0.75	0.52	
Education	4.10	3.82	3.26	4.50	7.21	0.00	P<NC,AL,AO
Adjusted for PCL	4.01	3.76	3.54	4.69	4.69	0.00	
Adjusted for IQ	4.06	3.83	3.34	4.39	5.02	0.00	
Work	4.71	4.56	3.68	4.63	7.06	0.00	P<NC,AL
Adjusted for PCL	4.62	4.51	3.93	4.80	3.14	0.03	
Adjusted for IQ	4.65	4.58	3.77	4.49	5.36	0.01	
Finances	4.19	4.12	2.84	4.00	11.19	0.00	P<NC,AL
Adjusted for PCL	4.06	4.04	3.25	4.28	4.43	0.01	
Adjusted for IQ	4.16	4.13	2.88	3.94	10.01	0.00	

Note: [a] only 168 of the informants had children; IQ was only significantly correlated to the QoL dimensions Work, Finances and Education, therefor these are the only analyses in which we have adjusted for IQ; NC = Non-Criminal; AL = Adolescence-Limited; P = Persistent; AO = Adult-Onset

Table 4: Mean scores in perceived quality of life (QoL) dimensions by male offender groups. F ratio for one-way analysis of variance (ANOVA) with significance level and post hoc test ($p<0.05$) for subgroup comparisons (Tukey), with results of adjustments applied for psychopathy (PCL) and intelligence (IQ) (n=190) (ANCOVA)

Discussion

The present study explored self-rated Quality of Life (QoL) in four groups of male offenders. The findings indicated significant differences between the crime groups with respect to perceived QoL, with the P group reporting lower quality of life in all dimensions compared with the NC and AL groups. Furthermore, the P group reported lower quality of life regarding Family and Education than the AO group. These results are partly in line with earlier findings of persistent/chronic offenders' adverse life outcome, with reported experienced worse health outcome and the least successful lives when it comes to alcohol use over time, as well as Relationship with a significant other, and Employment as compared to non-offenders [22,40,41].

Further, we wanted to investigate the possible role of psychopathic tendencies on differences in subjective QoL-ratings between the offender groups. The initial correlation analyses revealed that the males with higher psychopathy scores rated their quality of life lower than the males with lower psychopathy scores. These findings support earlier research regarding lower life satisfaction experienced by individuals with high psychopathy scores compared to males with lower psychopathy scores [42]. When we controlled for psychopathic tendencies the group differences found for the QoL dimensions of Self-perception and Children disappeared, suggesting that psychopathic tendencies explained the group differences in these two areas of QoL.

Finally, we wanted to explore the possible role of intelligence on differences in QoL. Intelligence taps individuals' cognitive function and thus might indicate whether this facet of cognitive ability is of importance in judging and apprehending life quality. Similarly, self-reports of QoL include the cognitive position of how individuals perceive and react to their life circumstances. Findings in the literature of whether or not individuals with psychopathic tendencies suffer from deficits in cognitive processing have been inconsistent [43]. Findings in the present study however did show that individuals with higher IQ scores perceive higher QoL than individuals with lower IQ scores, with respect to Education, Work, and Finances. This could be expected since individuals with higher IQ face greater possibilities in their life choices regarding education, work etc. Interestingly, IQ did however not explain the differences in rated QoL between the offenders groups studied.

It is generally accepted that psychopaths are a hard to treat group. A study of Therapeutic Community (TC) treatment programs for adult male offenders showed that psychopaths showed less clinical improvement, displayed lower levels of motivation and were discharged from the programs earlier than non-psychopaths [44]. However, more recently, independent researchers have published results indicating that this might not always be the case. For example, a prospective study found that psychopaths subjected to intense drug abuse treatment were as likely to benefit from this kind of treatment as non-psychopaths [45]. Thus, they were over three times less likely to be rearrested at a one-year follow-up than psychopaths who did not receive such an intensive treatment. Since psychopathic tendencies seem to be related to low scores on some life satisfaction aspects, we suggest that enhancing quality of life could be a key motivator to enter and stay in treatment.

Methodological considerations

There are some limitations pertaining to this study. Firstly, the presence of adult-onset offending has been debated. Given that the offender groups were yielded based on registered criminality, it is possible that the AO offenders had committed crimes earlier without getting caught. Interestingly, this group had the highest IQ in the present study. On the other hand findings based on both registered and self-reported offending suggest that there is in fact a group adult-onset offenders [46]. Secondly, a shortened version of the PCL with only 13 items was used in the present study; however, these 13 items were all part of a later used shortened version by Hart, Hare and colleagues [47]. Moreover, self-reported personality traits were found to be in-line with our psychopathy measurements, which supports the use of the shortened version of the PCL applied [33]. Thirdly, individuals with high psychopathy scores may suffer from poor reality discernment. For instance, they may have over reported positive or negative life events in their favor, which might have influenced their responses. Additionally, the present longitudinal project sample included only male subjects, which is another limitation in our exploratory study. Finally, it is worth noticing that the data was collected about 30 years ago. However, it is not likely that the measures of psychopathy-, quality of life- and intelligence would be much different today; the PCL, intelligence tests and the quality of life parameters used in the current study are still highly relevant. Even though the society and the pace of life have changed over this time period, family, education/work and finances are still central in today's living conditions. Future studies have additional intelligence measures to choose among but the Terman Merril test was the standard used at the time and still highlights trends in intelligence that varies between offender groups.

Conclusion

Albeit the study limitations, the findings of the present work, if cautiously interpreted, might enhance the knowledge of some correlates to subjectively rated QoL. Most importantly, it was found that the psychopathic tendencies per se contributed to the perception of poor quality of life regarding self and one's relationship with children, not belongingness to a certain offender group. Our findings that persistent offenders, in addition to their experienced low quality of life, displayed the highest scores on PCL, are in line with results from the Cambridge Study in Delinquent Development, indicating that chronic/persistent criminality is strongly linked to psychopathy [20]. It might, thus, be beneficial to further study the persistent crime group and in future research examine possible effects of including quality of life aspects into treatment situations, with the goal to enhance experienced quality of life as part of rehabilitation programs.

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