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ABSTRACT BOOK

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extant research to investigate the following hypotheses:

1. Are IQ, social functioning, and autism severity positively associated with QoL?
2. Is the correlation between QoL and social functioning higher than those between QoL and IQ or autism severity?
3. Is there a relationship between age and QoL?

Methods: This study used a structured search in ERIC, ERC, Medline, PsychINFO, and ProQuest Dissertations and Theses databases to locate studies that included correlations between QoL and (a) age, (b) IQ, (c) autism severity or (d) social functioning of adults with ASD (over 18 years). The first and third author independently reviewed the 117 articles in full, and two studies were included (Figure 1). Reliability of decisions on inclusion/exclusion was 100%. The authors of 22 studies that included measures of interest but did not report Pearson's r or partial r were contacted, and 14 provided the requested information. The first and third authors independently coded the email correspondences. For continuous variables, the average ICC was .855 (range 0.74–0.95). For categorical variables, the average agreement was 85.48%. This analysis utilized a robust variance estimation approach to meta-analysis and meta-regression using the ROBUMETA macro in Stata (StataCorp, 2013).

Results: The meta-analysis was conducted on a total of 80 effect sizes (16 studies), which represented 1000 participants with ASD (mean age= 29.6; male= 83.55%). A total of 14 reports and 75 effect sizes were gathered from unpublished sources. The coefficients in the simple meta-regression for age, IQ and autism severity were close to zero and statistically insignificant while the coefficient for social functioning was statistically significant (p=0.0476), and with coefficient 0.259. See table 1 for coefficients and p-values.

Conclusions: The meta-analysis shows that social functioning is more highly correlated with QoL than age, IQ and autism severity. The strong relationship between social functioning and QoL suggested by this study has implications for future studies to target social functioning to effectively support better QoL of adults with ASD. Increasing awareness and acceptance on the part of neurotypical individuals and improving social support are discussed as methods to improve social functioning.

Table 1. Summary effect sizes in unconditional models

Correlate constructs	Coefficient	P-value
Age	-0.0337	0.5934
IQ	-0.008	0.9602
Autism severity	-0.003	0.9639
Social functioning	0.259	0.0476

15 **126.015** Dating Experience and Subjective Wellbeing in Autism Spectrum Disorder

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Background:

Research and clinical accounts both suggest that many individuals with ASD express a clear desire for relationships with others. However, they experience difficulties establishing such relationships. Previous systematic reviews and meta-analyses suggested that difficulties in this area are more commonly experienced by individuals with ASD compared to typically developing (TD) individuals (Hancock, Stokes, Mesibov, 2017). However, there is very little empirical evidence concerning the impact of ASD on the establishment of romantic relationship. Understanding of this would assist in providing well-informed and effective supports for adolescents with ASD in transition to adulthood and for adults with ASD who are seeking support around relationship difficulties.

Objectives:

The aim of this study was to contrast those with ASD to TD individuals for 1/. the level of interest in relationships, 2/. the rate of dating experience, and then 3/. the subsequent difficulties establishing a relationship. If differences between groups were found, the clinical impact of these difficulties was to be explored by assessing whether the association between ASD symptomology and overall wellbeing was moderated by the relationship difficulties.

Methods:

An online questionnaire comprising of the Sexual Behaviour Scale – third edition (SBS-III; Hancock, 2017), a measure of socio-sexual functioning validated by item response analysis, the Autism Quotient (AQ), and the Personal Wellbeing Index (PWI) was completed by 232 individuals with ASD (Age M=25.13, SD=7.96) and 227 TD individuals (Age M=22.16, SD=5.25).

Results:

Compared to TD individuals, individuals with ASD did not differ to the degree that they were interested in having a relationship (p=ns). However, those with ASD more commonly reported having never been on a date, $t(411)$=2.15, p<.05, Cohen's d=0.30, and having had difficulties establishing a relationship, $t(437)$=4.58, p<.001 Cohen's d=0.62. A regression model of the relationship between level of ASD symptomology and level of wellbeing, moderated by difficulty establishing relationships was significant, $F(3,451)$=43.44, p<.001, R^2=.22, with the moderator providing significant explanation of this relationship, b=-.64, t=-2.35, p<.05.

Conclusions:

Individuals with ASD have the same level of interest in relationships as TD individuals, however are less likely to have been on a date and if they have, they are more likely to have difficulty establishing a relationship. Results also demonstrated that the impact of ASD symptomology on one's wellbeing is moderated by these difficulties establishing romantic relationships. For clinicians, these findings suggest that primary interventions and supports in this domain should focus on understanding and skills related to the initial stages of meeting a potential partner and building a relationship. This is of particular importance given that difficulty in this area can reduce subjective wellbeing for those on the autism spectrum.

16 **126.016** Developing a Research Protocol to Investigate Stress, Workload, and Driving Apprehension during Driving Lessons in

Young Adults with an Autism Spectrum Disorder: A Feasibility Study.

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Background:

Autism Spectrum Disorders (ASD) are known to impact quality-of-life (QoL). Driving can increase autonomy and QoL by enabling maintenance of work and social contacts. Research suggests people with ASD experience difficulties in complex driving situations. These difficulties may induce increased stress, workload, and driving apprehension (i.e., fear or worry), discouraging the pursuit of licensure and potentially interfering with safely learning to drive.

Driver instructors can be seen as key players in the development of safe driving skills, already during the learning phase. Internationally, attention went to the development of educational modules for driver instructors to learn how to deal with ASD learner drivers. Especially in the Netherlands, and recently in Belgium, several driving schools adopt a distinct approach for ASD learner drivers. However, effect evaluations often lack, neither has it been investigated whether these approaches lead to less stress, workload, and driving apprehension. Moreover, to avoid extra stress, too demanding research protocols are best avoided.

Objectives:

We conducted a feasibility study with wearable technology and questionnaires to determine levels of stress, workload, and driving apprehension during driving lessons. To this end, we developed a research protocol and asked a pilot sample to evaluate the procedure.

Methods:

The protocol included Q-sensor wristbands to indicate levels of stress and workload during driving lessons via measurement of electrodermal activity. We also included the Rating Scale of Mental Effort (RSME), together with the Driving Attitude Scale Parent-Report (DAS-PR) & Self-Report (DAS-SR) from Cox and colleagues as indicators for signs of apprehensive driving. Participants wore Q-sensors during each lesson and completed the RSME after each lesson, as their instructors also did. After the first, middle, and final driving lesson, participants and their parents completed the DAS questionnaires. Besides that, we included questionnaires to determine baseline levels of anxiety and ASD characteristics. We followed a similar procedure for participants that took a driving test. The pilot sample included 4 ASD diagnosed (1 male) and 2 control (1 male) learner drivers, age 18-25. Participants received the instructions once, at reception of the materials.

Results:

Procedures and measures were evaluated positively. However, to avoid incomplete or unusable data, special attention should go to clear enough instruction of the correct procedure. For instance, two participants wore sensors on the upper instead of the lower wrist, leading to unusable data. Furthermore, questionnaires were not always completed consistently. The non-parametric group comparison tests were not significant, probably due to the limited sample size. Only one ASD learner driver completed the driving exam during the study (i.e., one academic year).

Conclusions:

The developed protocol was evaluated positively and therefore can be used to investigate levels of stress, workload, and driving apprehension during driving lessons. However, sufficient attention to the instructions is warranted (e.g., inclusion of practice sessions and reminders). Finally, to include the driving exam, sufficient time allocation to the study is required.

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17   **126.017** Getting from A to the Bahama's: An Exploratory Study of People with an Autism Spectrum Disorder

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Background:

Most scientific studies on autism spectrum disorders (ASD) started from a medical perspective, investigating causes, prevention, and treatment. Recently, research started to focus more on the daily problems experienced by people with ASD, requiring the identification of specific barriers (Hamed, 2013). It appears that people with ASD are limited in autonomy and social inclusion (Ross et al., 2015). This, for example, due to possible impairments related to use of public transport and driving, but also to the less explored domain of tourism (Feeley et al., 2015; Hamed, 2013; Ross et al., 2015). To the best of our knowledge these three components were not yet combined in one single study.

Regarding public transport, a number of potential obstacles can be categorized in 3 main categories: social contact (buying tickets, interacting with other passengers), imagination (next stop, transfer), and communication (buying tickets, asking questions, asking to stop at the correct stop). Moreover, structural problems may complicate traveling, such as availability or infrastructure (pedestrian routes, traffic lights, traffic density, etc.). Research in New Yersey (Feeley et al., 2015) confirms the use of public transport entails various potential difficulties. Similarly, independent car driving is a complex task with several subtasks to be executed in parallel (e.g. shifting gears, steering, changing lanes, and keeping traffic rules into account). In addition, driving conditions are variable (e.g. traffic jams, road blocks, and detours). Driving thus depends on driving experience, perception, and cognitive abilities. ASD features, such as cognitive dysfunction can interfere with driving (Ross et al., 2015). Similar problems can arise in the area of travel and tourism since travel can be overwhelming for people with ASD, especially when routines change. The latter can result in fear, and sensory problems. Despite that, most tourism related publications concern children with physical or significant cognitive impairments, instead of ASD (Hamed, 2013).

Objectives:

This cross-sectional survey study explores possible problems related to autonomy and social inclusion. More specifically, we developed a questionnaire focusing on the use of public transport, driving skills, and tourism.

Methods:

Questionnaires were distributed via schools, ASD societies, and social media. Inclusion criteria were a certified ASD diagnosis, and a signed consent form. Respondents could participate from the age of 17 years since this is the age at which people are allowed to learn to drive in