



The broad autism phenotype: Implications for empathy and friendships in emerging adults



Ruby Jamil^{a,*}, Marcia N. Gragg^a, Anne-Marie DePape^b

^a University of Windsor, Department of Psychology, 401 Sunset Ave, Windsor, ON N9B 3P4, Canada

^b Mohawk College, School of Human Services, 135 Fennell Ave., West, Hamilton, ON L9C 1E9, Canada

ARTICLE INFO

Article history:

Received 25 November 2016

Received in revised form 1 February 2017

Accepted 2 February 2017

Available online xxxx

Keywords:

Broad autism phenotype

Empathy

Friendships

Emerging adults

Relatives

ABSTRACT

Autism spectrum disorder (ASD) is a neurodevelopmental disorder whose symptoms include social communication deficits and repetitive and rigid behaviours. The “broad autism phenotype” (BAP) includes milder, subclinical personality and language characteristics. We explored the relationship between BAP features, empathy skills, and friendships in emerging adults with or without a biological relative with ASD. We found emerging adults from both groups with more BAP features had less interest in and shorter duration of friendships. This relationship was mediated by empathy, such that those with weak empathy skills experienced the most negative friendship outcomes. This mixed methods study sheds light on the relational implications of exhibiting BAP features and the importance of non-normative life events on friendships.

© 2017 Elsevier Ltd. All rights reserved.

1. Introduction

Autism spectrum disorder (ASD) is a neurodevelopmental disorder whose symptoms include social communication deficits and repetitive and rigid behaviours (American Psychiatric Association, 2013). The “broad autism phenotype” (BAP) includes milder, subclinical personality and language characteristics (BAP; Sucksmith, Roth, & Hoekstra, 2011). Although the BAP is found in biological relatives, it has been found in samples without a known relative with this disorder (e.g., Sasson, Nowlin, & Pinkham, 2012; Wainer, Block, Donnellan, & Ingersoll, 2013). The current study sheds light on the relational implications of exhibiting BAP features in the general population.

1.1. Socio-emotional selectivity theory

The socio-emotional selectivity theory suggests that emerging adults, which represent the ages between 18 and 25 years (Arnett, 2000), have a greater number of friends than older adults because they perceive their remaining lifetime as infinite (Carstensen, 1995). Their primary social motive is information seeking (Carstensen, 1995), whereby emerging adults acquire information from close friends and loose acquaintances (Fiori, Smith, & Antonucci, 2007; Matthews, 2000; Miche, Huxhold, & Stevens, 2013). Furthermore, friendships increase due to normative life changes, such as transitioning to higher education

(Wrzus, Zimmermann, Mund, & Neyer, 2017). What remains unclear is how non-normative experiences, such as having a relative with ASD, impact friendships. In contrast to normative life changes, non-normative ones are unusual because they do not occur to all people and yet impact development (Santrock, 2012).

1.2. BAP in parents and siblings of individuals with ASD

Given the genetic (Devlin & Scherer, 2012) and heritable (Colvert et al., 2015) nature of ASD, higher BAP features have been found in biological relatives with this disorder. Hurley, Losh, Parlier, Reznick, and Piven (2007) conceptualized the widely accepted definition of the BAP: (1) aloof personality, with minimal interest in and lack of social enjoyment; (2) pragmatic language deficits, involving poor turn-taking and changing conversation topics; and (3) rigid personality, involving trouble coping with change. In behavioural interviews with 86 parents of children with ASD, Hurley et al. (2007) found 22 parents (26%) exceeded the BAP cutoff. In addition, 27 (31%) parents had aloof personality, 21 (24%) had pragmatic language deficits, and 20 (23%) had rigid personality, with 5 (6%) parents exhibiting all three features. Similarly, Sasson et al. (2014) found in their sample that 149 out of 711 (21%) parents of children with ASD exceeded the BAP cutoff compared to 84 out of 981 (9%) parents of typically developing children.

In other research, Howlin, Moss, Savage, Bolton, and Rutter (2015) examined the BAP in 18 adult siblings of people with ASD who were identified with the BAP in childhood and 69 adult siblings of people with ASD who did not have the BAP in childhood. At follow-up, the siblings who were initially identified had more BAP features than those not

* Corresponding author.

E-mail addresses: jamil2@uwindsor.ca (R. Jamil), mgragg@uwindsor.ca (M.N. Gragg), anne-marie.depape@mohawkcollege.ca (A.-M. DePape).

initially identified (Howlin et al., 2015). These findings support the BAP affecting biological relatives of people with ASD. These findings also suggest BAP features persist into adulthood, such that they represent stable personality traits (Howlin et al., 2015).

1.3. BAP in people with no known relatives with ASD

The BAP has been found in 18% (Wainer et al., 2013) to 40% (Sasson et al., 2012) of undergraduates with no known relatives with ASD. In a community sample of adults without children with ASD, approximately 8% had BAP scores that exceeded cutoff (Sasson et al., 2014). Although these studies used the Broad Autism Phenotype Questionnaire (BAPQ), other research has used the Autism Quotient (AQ; Baron-Cohen, Wheelwright, Skinner, Martin, & Clubley, 2001) or Social Responsiveness Scale (SRS; Constantino & Todd, 2003). To investigate which questionnaire most accurately assessed the BAP, Wainer, Ingersoll, and Hopwood (2011) administered the AQ, SRS, and BAPQ to 680 undergraduate students. Through factor analysis, these researchers found the same underlying features reported by Hurley et al. (2007). Similarly, Ingersoll, Hopwood, Wainer, and Brent Donnellan (2011) assessed the utility of these BAP measures and concluded the BAPQ was the best self-report questionnaire based on its reliability, validity, and replicability. This research provides a rationale for choosing the established conceptualization of the BAP and for using the BAPQ in the present study.

1.4. BAP, empathy, and friendships

Empathy has two components: cognitive empathy involves understanding the mental states of others, and affective empathy involves an emotional response to another's emotional state (Chakrabarti & Baron-Cohen, 2006). Emerging adults rely on emotional abilities to connect with friends, as the context of friendships is increasingly fragile during this developmental period (Barry & Madsen, 2009; Burnett & Blakemore, 2009; Laursen, 1996). As such, it is important to study friendships of emerging adults with high BAP because these personality features may hinder them from developing strong friendships. Further, weak empathy skills, which have been identified in individuals with high BAP (e.g., Lamport & Turner, 2014), may exacerbate difficulties initiating and maintaining friendships. In a study with 97 emerging adults, high ASD and weak empathy skills negatively affected friendships, such that those with higher ASD features had fewer friendships, and friendships that were shorter in duration (Jobe & Williams White, 2007). In another study, people with no known relatives with ASD and higher BAP features reported less enjoyment of friendships as well as fewer and shorter friendships than those with low BAP features (Wainer et al., 2013). Given that empathy "allows us to interact effectively in the social world" (Baron-Cohen & Wheelwright, 2004, p. 163), it is important that we understand the effect that weak empathy skills as well as strong BAP features have on friendships.

1.5. The present study

There is little research on the BAP characteristics and empathy skills of siblings and extended relatives of people with ASD past childhood (Blakemore, 2011). The studies that exist measured ASD characteristics using the Autism Quotient (AQ) and Social Responsiveness Scale (SRS) rather than measuring BAP-specific characteristics. The Broad Autism Phenotype Questionnaire (BAPQ) was designed to specifically identify people with the BAP, whereas the AQ and SRS were designed to identify people with ASD. This is problematic because ASD and BAP, although broadly parallel, have distinct features. Furthermore, research on the relational implications of the BAP, as well as the effect of non-normative life events on friendships, are under-studied.

The present study explored the relationship between BAP features, empathy skills, and friendships in emerging adults with or without a

biological relative with ASD. A secondary purpose was to compare the proportion of people in both groups with the BAP and their average BAP scores.

Hypothesis 1. BAP, empathy, and friendships. People with higher BAP scores were expected to have (a) weaker empathy skills, (b) lower reported interest in and pleasure derived from friendships, and (c) shorter duration of friendships. People with stronger empathy skills were also expected to have (a) higher reported interest in and pleasure derived from friendships and (b) longer duration friendships. Furthermore, it was hypothesized that empathy skills would mediate the relationship between BAP features and (a) interest in and pleasure derived from friendships and (b) friendship duration.

Hypothesis 2. Comparing relatives to non-relatives. A significantly higher proportion of people with the BAP were expected in the Relative than the No Relative group. Further, BAP group average scores were expected to be higher in the Relative than No Relative group.

2. Material and methods

2.1. Participants

Participants ($N = 235$) ranged between 18 and 25 years old, with no known relatives with ASD (No Relative; $n = 115$) or with a biological sibling, niece/nephew, uncle/aunt, cousin, or grandparent diagnosed with ASD (Relative; $n = 120$). Thirty-seven participants were excluded because their AQ scores (Baron-Cohen et al., 2001) would bias the results given they were in the ASD range. Participants were (a) enrolled in a research participant pool at the University of Windsor ($n = 165$) or (b) responded to a recruitment flyer ($n = 70$). Participants were on average 20-years-old, mostly female (80%) and Caucasian (68%) who reported being single (93%). The majority of participants reported experiencing normative life events, such as working part-time (63%) and having some university education (59%). On the other hand, most participants in the Relative Group reported non-normative life events, such as being a cousin (48%) or sibling (41%) of a person with ASD.

2.2. Measures

2.2.1. The Autism Spectrum Quotient-Shortened Version (AQ-S; Baron-Cohen et al., 2001; Hoekstra et al., 2011)

Is a 29-item self-report questionnaire. A sample item is "New situations make me anxious." Items are rated on a 4-point Likert scale ranging from 1 (*definitely agree*) to 4 (*definitely disagree*), with higher scores indicating more ASD symptoms. The AQ-S has acceptable to good internal consistency reliability ($0.77 < \text{Cronbach's } \alpha < 0.86$) with 0.73 for the current study.

2.2.2. The Broad Autism Phenotype Questionnaire (BAPQ; Hurley et al., 2007)

Is a 36-item self-report questionnaire. A sample item is "I am 'in tune' with the other person during conversation." Items are rated on a 6-point Likert scale ranging from 1 (*very rarely*) to 6 (*very often*), with higher scores suggesting more BAP traits. The BAPQ has excellent internal consistency reliability (Cronbach's $\alpha = 0.95$) with 0.90 for the current study.

2.2.3. The Questionnaire of Cognitive and Affective Empathy (QCAE; Reniers, Corcoran, Drake, Shryane, & Völlm, 2011)

Is a 31-item self-report questionnaire. A sample item is "I can easily work out what another person might want to talk about." Items are rated on a 4-point Likert scale from 1 (*strongly agree*) to 4 (*strongly disagree*), with higher scores indicating stronger cognitive and affective empathy skills. The subscales for the QCAE demonstrate adequate

Download English Version:

<https://daneshyari.com/en/article/5035940>

Download Persian Version:

<https://daneshyari.com/article/5035940>

[Daneshyari.com](https://daneshyari.com)