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How is paranoia experienced in a student population? A qualitative study of students scoring highly on a paranoia measure

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Objectives. Recent studies have suggested that students may experience high levels of paranoia. This study aimed to explore both experiences of paranoia and coping strategies in students scoring at high levels on a measure of paranoia.

Design. This was a qualitative study which utilized a quantitative measure to identify potential participants.

Methods. From an overall sample of 174 London-based university students in the United Kingdom, a sub-sample of 31 students with the highest total scores on the *Green* et al. Paranoid Thoughts Scale were invited to interview resulting in interviews with seven students (six female and one male) aged between 20 and 36 (M = 28.14). A thematic analysis of the interview transcripts was conducted from a critical realist standpoint.

Results. Two key foci structured the analysis: *perceived causal influences on paranoia* (comprised of 'historical contexts fostering mistrust'; 'finding a social situation strange'; 'anticipating threat'; and 'evaluating the concern') and *living with paranoia* (comprised of 'effects on everyday life' and 'trying to minimize the effects of paranoia and regaining control').

Conclusions. Key aspects of the findings discussed in the context of the literature include paranoia as a threat heuristic; the role of internal and external dialogues; the influence of gender on content; and the importance of meaning in life as a coping resource.

Practitioner points

- Paranoia may be a significant issue for some students.
- Paranoia needs to be seen in the context of past aversive experiences.
- Dialogical approaches may be useful in developing new therapeutic narratives.
- Valued social roles, activities, and responsibilities may be an important coping resource.

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The use, by researchers, of students as a proxy for the general population has quite rightly been criticized since such samples are unrepresentative (Henrich, Heine, & Norenzayan, 2010). However, students can experience psychological distress in their own right (Macaskill, 2013) and many of those later attracting psychosis diagnoses first encounter problems as young adults (Harrop & Trower, 2001). Research indicates that paranoid experiences may be particularly prevalent amongst the student population and there is a need to both understand this and consider what forms of support might be appropriate.

In a study of 7,000 general population respondents, paranoia was found to be highest in younger people and it decreased with age (Freeman *et al.*, 2011). Approximately a third of a sample of 1,202 UK students were said to regularly experience such thoughts (Freeman *et al.*, 2005). Ellett, Lopes, and Chadwick (2003) noted that 153 out of their sample of 324 university students (i.e., 47.2%) aged between 18 and 49 reported an experience of paranoia (including a clear statement of planned intention to harm) with this group scoring significantly higher on Fenigstein and Vanable's (1992) *Paranoia Scale* compared with those who reported no experience of paranoia.

There are reasons to suggest that students may be more likely to have paranoid experiences. For example, aspects of the student experience such as loneliness can increase distress (McIntyre, Worsley, Corcoran, Harrison Woods, & Bentall, 2018). Moreover, levels of delusional ideation in general appear to be higher in student samples compared with the general population (Lincoln & Keller, 2008). Although 24.2% of UK students are aged 30 or older (Higher Education Statistics Agency, 2018), the majority are younger and the prevalence of unusual beliefs in student populations may be related to the developmental challenges faced during and after adolescence (Harrop & Trower, 2001). Indeed, a study of pupils in a UK secondary school (Bird, Evans, Waite, Loe, & Freeman, 2018) found that paranoid thoughts were common and continuously distributed with concerns about peers and physical threats from others more frequent, whilst conspiratorial beliefs were less frequent.

There are also reasons to question a high prevalence of paranoia amongst this population. For example, levels of general psychological distress in British students appear to be equivalent to those of the general population (Macaskill, 2013). Moreover, measures of delusional ideation designed for use with the general population may overestimate prevalence (Mullen, 2003). Thus, the *Personal Experience of Paranoia Scale* used by Ellett *et al.* (2003) asked whether participants had 'ever' had an experience of paranoia (rather than a more temporally bounded question) and it was difficult to assess how implausible the students' beliefs were since little information was given regarding the content of their purportedly paranoid experiences.

Much of this research has utilized questionnaires which provide only a numerical composite score and where researchers determine item content. In contrast, qualitative studies can elicit and emphasize aspects of lived experience and they can also help to address theoretical questions about the nature of paranoid experiences. For example, in addition to the importance of intra-psychic factors noted in cognitive models (e.g., Freeman, 2007), social factors have increasingly been implicated (e.g., Bentall & Fernyhough, 2008) and qualitative research with both clinical and non-clinical samples has highlighted the role of a range of social and interpersonal factors: early life adversity (Boyd & Gumley, 2007); experiences of victimization (Dickson, Barsky, Kinderman, King, & Taylor, 2016); and interpersonal relationships (Rhodes & Jakes, 2010). Qualitative studies have identified important aspects of the social context which seem to be salient when evaluating evidence for and against paranoid interpretations of situations (Campbell & Morrison, 2007a; Fornells-Ambrojo *et al.*, 2015) and they have also given some

indication of how and why paranoid beliefs might change over time (Allen-Crooks & Ellett, 2014).

The aim of the present study was to interview a group of students who were experiencing distressing levels of paranoia and to explore their experiences in more detail. Whereas many previous studies have focused primarily on investigating intrapsychic constructs from within a cognitive framework, the intention here was to develop an account grounded, as much as possible, in participants' own perceptions of the biographical, social, and interpersonal contexts of paranoid thoughts and feelings and to elicit accounts of how they sought to manage these experiences.

Method

The study was registered with the University and approved by its institutional review board ethics committee.

Screening

UK norms for both clinical and non-clinical samples are available for the *Green at al. Paranoid Thoughts Scale* (GPTS: Green *et al.*, 2008), thus making it possible to identify students who might be experiencing distressing paranoia. Another widely used measure, the Paranoia Scale (PS: Fenigstein & Vanable, 1992), was also utilized to provide comparative data on the sample.

The screening sample was recruited both in person on a London university campus and also online, via social media sites and forums specifically for university students in London. Participants completed either a paper or electronic questionnaire including the two measures and gathering information on demographics; whether they were undergraduates or post-graduates; previous mental health service use; and contact details (it was stated that, if they gave this information, they might be invited for interview). Students had to be able to communicate in English, and there was no upper age limit. Participants were asked not to complete the paranoia measures if these experiences had occurred under the influence of drugs. Participants who indicated that their paranoid experiences were a result of drug taking were excluded as were those currently accessing mental health services for help with paranoid experiences (though those who had received such support in the past were not excluded).

One hundred and seventy-eight students were recruited of whom four were subsequently excluded as they were currently using professional mental health support leaving 174 participants. Of these, 104 were recruited online. Sample characteristics can be found in Table 1. Compared with UK students as a whole, this sample had more female and post-graduate students (Higher Education Statistics Agency, 2016).

Identifying and recruiting the interview sample

Participants were invited to interview in order of their total GPTS score, beginning with the highest scorers first. They were informed that they were being approached on the basis of their questionnaire responses (a condition of ethical approval) and sent further information on the interview if they replied. Thirty-one students were contacted either by email or by telephone (depending on the contact information provided), and fifteen replied. Seven agreed to be interviewed, whilst the other eight participants either stated

Variables	Total sample (n = 174)	Approached for interview $(n = 31)$	Final interview sample (n = 7)
Age (years), M (SD)	27.35 (8.83)	39.82 (10.94)	28.14 (6.12)
Sex, N (%)			
Male	37 (21.3)	5 (16.1)	l (14.3)
Female	137 (78.7)	26 (83.9)	6 (85.7)
Ethnicity, N (%)			
White British/Irish/Other	115 (66.1)	18 (56.4)	5 (71.4)
Black British/Caribbean/African	22 (12.6)	4 (12.9)	l (14.3)
Asian British/Asian/Other	21 (12.1)	5 (16.1)	I (I4.3)
Mixed	7 (4.0)	3 (6.1)	0 (0)
Other	9 (5.2)	I (3.2)	0 (0)
Level of study, N (%)			
Undergraduate	84 (48.3)	23 (74.2)	3 (42.9)
Post-graduate	89 (51.1)	8 (16.1)	4 (57.1)
Use of professional MH support, N (%)			
Historical	22 (12.6)	13 (41.9)	l (14.3)
Paranoia scale scores, M (SD)			
GPTS-A	29.99 (11.71)	48.0 (9.21)	46.34 (7.31)
GPTS-B	26.06 (13.99)	51.48 (11.93)	55.0 (12.65)
Total GPTS ^a	55.92 (24.04)	99.48 (I 5.46)	101.0 (11.67)
Paranoia scale ^b	39.25 (15.44)	56.77 (16.69)	51 (15.13)

Notes. ^aGPTS scores can range from 32 to 160.; ^bPS scores can range from 20 to 100.

they had busy schedules or failed to respond to further communication. Recruitment for interviews was then halted as inviting further lower-scoring students would reduce the homogeneity of the group. Reasons for the low response rate could include competing commitments (end-of-term assessments were being conducted and many students appeared to be in employment) though some may have been wary because of the focus of the interview. Comparative demographic data and scores on the GPTS and PS for the screening sample, the group of 31 students approached, and the seven interviewees can be found in Table 1. The gender distribution of the interviewee sample was similar to that of the 31 though there were more post-graduate students in the interviewed group.

Interviewees

Table 2 presents demographic data for the interview sample together with their GPTS total scores, and interviewees are identified by pseudonym. Two of the interviewees had received mental health support in the past for the kinds of worries addressed in the measures but were not receiving it at the time of the study.

Interviews

A semi-structured interview schedule informed by the previous literature was developed jointly by the authors to elicit information on the perceived causes, contexts, and effects of paranoia. One question asked participants to describe a recent situation 'when you felt worried about others wanting to upset or harm you'. A question asking specifically about

Pseudonym	Age	Sex	Ethnicity	Level of study	Previous MH service use	Total GPTS score	Position of GPTS score overall ^a
James	36	М	White British	Post-grad	No	111	6th
Sukhi	26	F	Indian	Undergrad	No	116	4th
Sarah	25	F	White British	Post-grad	No	99	l 5th
Lisa	36	F	White British	Post-grad	Yes	103	llth
Marsha	30	F	White British	Post-grad	No	96	l 6th
Kemi	20	F	Black African	Undergrad	No	83	24th
Katrina	24	F	White Other	Undergrad	Yes	113	7th

			sample

Note. ^aLower position numbers indicate higher scores.

the influence of gender was added after the first interview suggested this might be an important factor.

Interviews were conducted by the second author and lasted between 45 and 70 min. A summary of the paranoia-related concerns disclosed by participants during interviews is provided in Table 3, so readers have additional information to judge whether their beliefs included paranoid content.

Qualitative analysis

The qualitative data were analysed using thematic analysis which is compatible with different epistemological frameworks (Braun & Clarke, 2006; Joffe, 2012). Critical realism (Bhaskar, 1986) provided a coherent epistemological framework within which both quantitative and qualitative data could be used since it combines an ontological realism (the assumption that there is a potentially knowable world in which causal influences are at work) with an epistemological relativism (the assumption that our methods for researching the world are imperfect and influenced by culture).

The analysis followed Braun and Clarke's (2006) guidelines. Following familiarization with the data, the second author conducted line-by-line coding. From these initial codes, themes and sub-themes were developed which the first author then reviewed and refined. The themes continued to be refined in an iterative process by both authors. Relationships between the sub-themes and higher-order themes centred around two key foci which will be discussed in the next section.

Results

Data from the screening process are briefly summarized here to both characterize the sample and enable comparison with previous studies.

The mean total GPTS score for the overall sample (M = 55.92) was within 0.4 of one standard deviation of the mean score for Green *et al.*'s (2008) non-clinical sample (M = 48.8, SD = 18.7). The mean total PS score for the overall sample (M = 39.25) is similar to that of Ellet *et al.*'s (2003) student sample; Green *et al.*'s (2008) sample; and Fenigstein and Vanable's (1992) sample with the mean score falling within 0.5 of one standard deviation of the mean PS score reported for each of these studies.

Table 3. Interviewees' concerns

Participant pseudonym	Summary of concerns				
James	At the time of interview he was particularly concerned about a work situation in which he worried that a particular person may have been conspiring against him for an unknown reason				
Sukhi	Sukhi described feeling paranoid in many situations throughout her life, saying that she had a paranoid thinking style. However at the time of the interview she had fallen out with a family member leading her to become particularly paranoid about her close relationships. She worried about what others were saying and thinking				
Sarah	Sarah had fallen out with a friend just before the interview. She was concerned that the friend was deliberately turning people against her. She described occasionally experiencing paranoia with regard to strangers (such as on public transport), but predominantly in situations with known others				
Lisa	Lisa was concerned about being excluded and plotted against in her work context at the time of interview. She said she experienced paranoia in most social contexts, mostly around known others such as colleagues				
Marsha	Marsha was concerned about being intentionally excluded or talked about in a malicious way in relation to peer groups. She also reported the occasional thought that she could be in an altered reality where everything around her was purposely set up for her (as in the film The Truman show). When she was younger Marsha recalled thinking that she was being followed by animated cartoon characters and dangerous people that she had seen on the news				
Kemi	Kemi reported that she only experienced paranoia with regard to strangers while out in public, but never in relation to friends or family. She was mostly concerned about being physically harmed in a random attack. Kemi said that she had felt much less distressed in recent times since she started regularly hearing the voice of God, who she felt would keep her safe and give her life meaning				
Katrina	Katrina described experiencing paranoia in relation to strangers in public as an on-going problem since her early teenage years. Her concerns about strangers ranged from being harmed psychologically (e.g., discovering she was being harshly judged) to being physically harmed. At age 16, she described a period of living in her own world, seeing and hearing 'things' and speaking to herself alone for hours at a time				

The mean total GPTS score for the interviewed participants (M = 101.0) fell within 0.03 of one standard deviation of the mean score of Green *et al.*'s (2008) clinical sample (M = 101.9, SD = 29.8). Five of the interviewees scored above Green *et al.*'s clinical sample mean. The other two interviewees scored below this clinical mean: one and two standard deviations below, respectively.

The thematic analysis was organized around two foci: 'perceived causal influences on paranoia' and 'living with paranoia'. Each of these comprised both themes and sub-themes, and their thematic structure is summarized in Table 4.

Perceived causal influences on paranoia

This process represents participants' perceptions of how and why they came to experience paranoia in their lives. In the first theme, participants discussed the influence of past experiences.

	Themes	Sub-themes
Perceived causal influences on	Historical contexts fostering mistrust	'I've seen my mum being suspicious': Family context
paranoia	-	'They're looking at us, what are they thinking?': School context
		'It could be anyone': Neighbourhood context
		'Men – they will either like wink at you, smile at you or they will sit there and actually literally stare': Gendered fears
	Finding a social situation strange	'They look at me and it makes me feel uncertain': Finding behaviour unusual
		Pondering the 'unknowns' of a situation
	Anticipating threat	-
	Evaluating the concern	Wrestling with one's inner dialogue
	-	Getting others' perspectives on the situation
Living with	Effects on everyday life	'It's a bit infantilising': Student Life
paranoia	Trying to minimize the	Engaging in reassuring internal dialogue
	effects of paranoia and regaining control	'I got busier so that helped': Turning attention to other things
		'If you accept your demons you can fight them' Confiding (vs. not confiding)

Table 4. Thematic structure

Historical contexts fostering mistrust

Participants spoke about contexts or factors which might have shaped their tendency to be mistrustful of others. Quotes in headings are drawn from interview transcripts. Each extract includes interview transcript page numbers.

Tve seen my mum being suspicious': Family context. Four of the seven participants spoke of their family contexts as being relevant in thinking about causal influences on their present-day experiences of paranoia although, for many, they also received support from family members. Three participants described difficult relationships with their families and parents. Two participants reported that one of their parents had died when they were children. No cause was given for one death, but the other was by suicide. Three of the four participants said that their parents had inculcated a mistrust of others throughout their upbringing. For example, Lisa felt that her parents had wished to protect her from strangers.

Lisa: I mean sometimes my parents are very suspicious people ... I do think you know I got particular ways of thinking from my parents I think yeah ... nobody's perfect. (p. 20)

'They're looking at us, what are they thinking?': School context. Five participants spoke about difficult school environments: four interviewees reported being bullied at school, whilst three participants spoke about falling out with friends which left them feeling suspicious, alone, and anxious.

Marsha: So my best friend kind of betrayed my trust. And it was a social climbing kind of thing so she kind of told other people my stuff and got other people to laugh at me and stuff so she could make friends; but ... ouch. And because I was aware that it happened and it did happen again I think it probably inflicted in my mind into kind of constant assumption that everyone around me just thought I was totally weird and shit and awful. Again it comes with self-fulfilling prophecy because I couldn't speak to anyone; so I did become really weird and withdrawn and frightened all the time. It was horrible. (p. 10)

'It could be anyone': Neighbourhood context. Three participants saw their neighbourhood context as important in fostering a mistrust of others. Kemi said that her experience of growing up in a dangerous London urban neighbourhood combined with her parents' experiences in their country of origin had made her very aware that 'normal people' could hurt others and that it 'could be anyone' leading her to feel unsafe when out in public. However, for Katrina, a sense of being constantly watched by others was linked to being raised in a small village.

Katrina: I was raised up by a very strict family in a very small I would say village ... like OK, you have to be careful because if the neighbour sees this they will talk about it or at school be the best because people will talk about it and stuff like that. And I think at the back of my head I've got that in my head like every time I do something. (p. 5)

'Men - they will either like wink at you, smile at you or they will sit there and actually literally stare': Gendered fears. Fears of others were gendered to some degree with three of the participants (half of the sample of six female interviewees) reporting feeling judged and observed by men and vulnerable to attack.

Kemi: . . . so you know I think it's mostly men as well; I just find them really strange and they do make me feel uncomfortable . . . I'll often just think OK he is just going to drag me in the car and see it just playing out in my mind. (p. 14)

Finding a social situation strange

'They look at me and it makes me feel uncertain': Finding behaviour unusual. All participants appeared to compare others' behaviours with implicit expectations of how people should behave in a particular context and they experienced discomfort and suspicion if their behaviour was not consistent with these expectations.

Sarab: Generally on the tube [the London underground subway system] people sit on phone and reading the paper, so people talking anyways is a bit unusual. And their speech wasn't like friends kind of catching up or killing time. (p. 23)

Three participants felt their fears about others (e.g., being at risk of being a victim of crime) were exaggerated partly in response to sensationalized media reporting.

Kemi: I don't really read the media because to be honest it's not truthful and all it's going to do is get you in a state where you're constantly paranoid about other people; constantly suspicious of other people's motives. (p. 3)

Pondering the 'unknowns' of a situation. Participants described feeling concerned when they were unclear about the intentions or motivations of another person. The ambiguity of a situation could lead to worries about others as in the following extract where James reflects on his concern that a co-worker might be conspiring against him.

James: ... every time I see him talking and he sort of looks, and they sort of walk further away so they can't hear me. He might be talking about his lunch I don't know ... but I start thinking to myself... (p. 3)

Anticipating threat

Participants anticipated threats ranging from physical harm to forms of social exclusion. This led them to have suspicious thoughts about others which could worsen if they were alone or unoccupied. Marsha noted that if one was left to one's 'own devices', these thoughts could become 'really poisonous and . . . hard to control' and 'spiral massively'. At such times, Lisa felt she 'acted weird' because she was feeling 'frozen, paralyzed and not able to do anything'.

Participants described a strong sense of threat combined with uncertainty and ambiguity about its source or nature which meant they were unclear how to protect themselves, leading them to feel powerless:

James: I felt like there was some kind of threat to me, but I didn't know what the threat was. I didn't know why there was a threat, I didn't know where the threat was coming from. (p. 11)

Evaluating the concern

Wrestling with one's inner dialogue. Participants described experiencing a conflict between mundane and more paranoid interpretations of others' behaviour with the latter experienced as more subjectively certain. This conflict was described as an internal argument, often represented in a personalized form.

James: I have like always got my rational head, and I've always got my irrational head going 'Oh my god! Why she just ignored me?' And my rational head is like, 'she's a kid, I don't care it's nothing to . . . just like she is just with her friends' (p. 10)

In this process, different interpretations of others' behaviour were evaluated through a process of internal argumentation.

Another form of inner dialogue involved attempting to take a wider perspective on the situation. For example, two participants placed an emphasis on attempting to clarify the possible intentions of others. Another approach was to acknowledge a tendency towards suspicious explanations.

Kemi: Yeah so it's like I don't straight away think like this person is out to get me; I kind of think like 'OK, you could be paranoid because of this and because of that'. So I try and balance it out because I know that my views on people will be different to someone who has never maybe studied [subject mentioned] or someone who grew up in a different area. (p. 14)

Three participants also described a 'rule of thumb' they used to evaluate particular kinds of concern which appeared to reduce uncertainty about how to react in ambiguous situations. For example, for James, if a person did something that made him feel uncomfortable (e.g., staring) on one occasion it could be a mistake. If it happened twice, it was a habit and three occurrences meant there were grounds for suspicion.

Getting others' perspectives on the situation. All participants described telling friends, family, or colleagues pieces of information to gauge their reactions, which could then be used to inform their own thinking about the issue. Here, the aim was less to seek emotional support, rather, they were seeking to evaluate the reasonableness of their concerns, especially since many acknowledged their tendencies towards more suspicious interpretations.

Sarah: [describing a situation to] people who didn't know the situation and seeing their reactions and gauging from them ... so kind of testing out with different people. (p. 6)

As well as seeking the views of others, some participants attempted to resolve the situation face to face by approaching the person concerned. Three of the participants confronted the person they suspected of having a malevolent motive (usually friends or colleagues but, in one instance, a stranger on the tube), but the other four interviewees felt that confrontation would be pointless as they perceived the other person as unlikely to be truthful about their actions or intentions.

Living with paranoia

Effects on everyday life

Each participant offered examples of how these experiences had affected their lives in the past and present. Lisa felt her past experiences of bullying had led her to become anxious and introverted.

Lisa: ... because I was so anxious about it ... it becomes itself a self-fulfilling prophecy because I'm not able to interact with people. I actually lose the ability to converse; I can't sustain a conversation anymore. So you know it becomes self-fulfilling in the sense that it's going to be hard to build a relationship with you because I'm like a like a rabbit in headlights ... and less able to make good decisions professionally and that kind of thing. (p. 5)

Katrina described similar effects.

Katrina: I came up to a point where I would go home and just sit on my bed and cry for hours because I wouldn't understand why I'm thinking all these thoughts: why, just why? I lost a lot of friends actually because I would go a bit paranoid. They couldn't understand what was going on. (p. 9)

Several participants described having limited social circles sometimes because others excluded them and sometimes because they, themselves, restricted their social contacts because of distressing thoughts and feelings.

Interviewees also discussed the relationship between aspects of student life and experiences of suspicion and mistrust of others.

'It's a bit infantilising': Student Life. Participants gave mixed responses when asked about the influence of student life on their experiences: Whilst it could be a positive factor (see the following theme), it could also remind participants of negative experiences at school and return them to the kinds of concerns associated with adolescence, such as finding and being accepted by a peer group.

Marsha: I remember finding the first semester of university, the undergraduate, really tough and doing the same thing not wanting to kind of go out and see people, for it being too overwhelming being in a group of people not knowing where I stood. (p. 5)

Despite their experiences of paranoia, participants were not using mental health services (although two had received support in the past for related concerns). They were managing to function at a reasonable level, for example performing well at university – in some cases having a job – and maintaining social relationships and the strategies they used are discussed in the next theme.

Trying to minimize the effects of paranoia and regaining control

Engaging in reassuring internal dialogues. In contrast to the internal arguments focused on evaluating the plausibility of specific concerns, here, four participants described internal dialogues which appeared to have a function of reassurance; for example, four participants countered fears that others might pose a threat to them by contending that they were not important enough to be the target of conspiratorial behaviour.

Lisa: But beyond that I don't think that they're going to go out of their way to hurt me because ... I'm not worth it. They might be bitchy because it's some help for them or they might tell tales because it makes them feel better about themselves. But I don't think I'm going to figure significantly enough about people [sic] lives that they would want to do anything serious to me. (p. 16)

Participants seemed to find it useful to reflect on their concerns as somewhat selfabsorbed and therefore unrealistic. For example, Marsha compared her situation to that of the 1998 film *The Truman Show*, where Truman Burbank (played by Jim Carrey) was, unbeknownst to him, the subject of a life-long reality television show. She weighed up the extensive logistics which would be required in organizing such a situation:

Marsha: Sometimes my imagination might get the better of me...like I'm on the Truman Show ... and then I try to rationalize about the [sic] all the logistics involved in that ...

sometimes like when I'm on my way into uni and then I think 'you can't plan this around me. This is ridiculous; there are too many people here'. (p. 20)

Two participants reported inner dialogues which involved reminding themselves that previous distressing experiences had ended well.

I got busier so that helped': Turning attention to other things. Participants reported that it was easier to dismiss paranoid thoughts and feelings if they were able to turn their attention to other issues and activities.

Katrina: I just call my best friend like 'OK, talk to me . . . keep my brain busy'. So when I feel that is coming to something I can't control, I usually try and keep myself busy. (p. 25)

Several participants also noted that having valued roles and responsibilities helped provide meaning in their lives – for example being a student working towards a qualification, or having good relationships.

Sukhi: Whereas, I do feel paranoid sometimes and suspicious, but I have other responsibilities. For example, uni, now that takes my mind off personal issues at home, worrying, you know, paranoia and stress and all the rest of it. Erm, because I know that I'm working towards something, that lifts me up and that makes me ... get on with day-to-day life. (p. 43)

'If you accept your demons you can fight them'. Two participants specifically referred to seeking to manage their responses, for example, in Katrina's case by accepting her difficulties and seeking support from others.

Katrina: I strongly believe that if you accept your demons you can fight them. Do you know what I mean? Like if I just kept on saying 'why me? Why is this happening to me?' ... It would never pass ... it still hasn't passed but I think I would still need that extra hand of helping and I do think the fact that I've got my friend help me a lot. (p. 34)

Confiding (vs. not confiding). Five participants spoke about the importance of confiding in a trusted other about their concerns and experiences. Lisa referred to the importance of her family's unconditional love for her, whilst, for Katrina, as we saw in the previous extract, a particular close relationship was important. However, participants were also wary in case they received an invalidating response from others. Marsha, for example, said she had a 'fear of being judged' whilst Sukhi did not want to be an 'open book' to others, perhaps because this might increase her sense of vulnerability. Disclosure could be affected by a difficulty in trusting others, and participants appeared to seek out people with particular qualities in whom they could confide:

Lisa: ... so I'm really extremely wary about people and trust ... But if I'm going to talk to someone like that I have to be fairly confident that they are a decent human being; that they are well disposed towards me, that I can rely on their maybe strength of character as well ... I guess ... sort of ... judgment of trustworthiness ... and who their loyalty lies with as well. (p. 9)

Discussion

The participants' scores on the two paranoia measures and their interview responses suggest that some students experience distressing levels of apparently unwarranted suspicion about and mistrust of others. Although they were able to use a variety of strategies to manage paranoid experiences and functioned at a good enough level to not only study – and also, in some cases, simultaneously hold down jobs – the interviewees also reported times when their studies, work performance, and social relationships were significantly affected. Although student life presented participants with similar challenges to those experienced in their families of origin and at school, in the main, their experiences of paranoia did not appear to be specifically related to student life.

The participants' descriptions of their experiences are consistent with the proposition that paranoia is a heuristic for dealing with potentially threatening situations under conditions of stress and uncertainty (Preti & Cella, 2010). This heuristic is not inherently pathological; for example, in her study of fear of crime in the general population, Lupton (1999) suggests that people fear what she terms the 'unpredictable stranger' because they do not know the person and so cannot gauge how they might respond or act. Thus, the participants' concerns with the motives and intentionality of others seem to be part of a widely culturally available strategy for managing threat. The analysis indicated that a range of biographical experiences previously reported in the literature appeared to be linked to the development of a paranoid tendency, for example being reared in families modelling or reinforcing paranoid interactional styles (Haynes, 1986; Kaffman, 1983); being bullied at school (Campbell & Morrison, 2007b); and experiencing attachment-disrupting events in childhood (Bentall et al., 2014) like the parental bereavements experienced by two of the participants. Whilst Boyd and Gumley (2007) noted that having recently fallen out with others could precipitate a current experience of paranoia, the interview responses indicated that episodes of falling out with school friends in childhood could be an important historical influence on the later development of a propensity towards a paranoid way of relating to others. Another important factor for some participants was the neighbourhood in which they grew up, for example neighbourhoods characterized by high levels of crime as noted by other researchers (e.g., Jack & Egan, 2016; Wilson et al., 2016). Interestingly, for one participant, growing up in a small neighbourhood with high levels of social surveillance had led to a highly vigilant stance, perhaps because this led to increased self-consciousness which has been linked with paranoia (Fenigstein & Vanable, 1992) and this may have a more significant impact in adolescence when selfconsciousness is a common experience (Harrop & Trower, 2001). The interview findings are consistent with models emphasizing the historical development of an orientation towards threat as a default mode (e.g., Macbeth, Schwannauer, & Gumley, 2008). Future studies could usefully focus on a range of potential historical influences and factors which might exacerbate or ameliorate their effects. Macbeth et al. (2008), for instance, argue that attachment experiences may play a key role.

That half of the female participants reported a fear of male strangers is perhaps understandable given that many women in the general population fear physical or sexual assault by a stranger at night (Lupton, 1999) and report higher levels of fear when unknown men are nearby (Lupton, 1999; Scott, 2003). These fears may well make sense in the context of women's experiences of 'everyday sexism' (Bates, 2014): Brown (1998), for example, noted that 45% of the women in her study reported being stared at by men, whilst a third of Scott's (2003) sample of 12,300 women said they had been followed by a stranger in a way that frightened them. There were high proportions of women in previous studies of paranoia amongst students (Allen-Crooks & Ellett, 2014; Ellett *et al.*, 2003; Freeman *et al.*, 2005), whilst Bird *et al.* (2018) found that the girls in their adolescent sample reported significantly higher levels of paranoia. Given this, it is surprising that, apart from debates about sex differences on quantitative measures (e.g., Freeman *et al.*, 2011), psychosis researchers have given relatively little attention to the role of gender, and we concur with Haarmans' (2019) call for the adoption of sex- and gender-based analyses, for example investigating the influence of gender roles on the content of psychotic experiences.

Neither the Black African nor Indian participant in the present study specifically referred to ethnicity or racial discrimination which is surprising given previous findings (Janssen *et al.*, 2003). However, the sample was small and the interview schedule did not include an explicit question about ethnicity or racism.

Participants also provided an insight into the process by which they evaluated threat with a key role played by their perception that others had breached the implicit norms, expectations, and conventions of particular social situations: what Fornells-Ambrojo et al. (2015) refer to as 'social scripts'. The descriptions of their thinking processes seemed much more dynamic than might be supposed from questionnaire-based studies (e.g., Černis et al., 2016), and emphasized the way in which affect, thoughts, and perceptions could build, through feedback cycles and loops, into 'self-fulfilling prophecies' which could be hard to control. The participants described their thinking as an internal dialogue, more like a debate between different interlocutors, where evidence for and against mundane and paranoid interpretations was debated. These reports seemed more consistent with Billig's (1996) view of thought as akin to a debate occurring between different dialogical positions rather than the information-processing metaphors which inform current cognitive models. Hallam and O'Connor (2002) have made a similar critique of cognitive theories of obsessional thinking, proposing an alternative conceptualization drawing on dialogical theory. A useful dialogical strategy used by participants was to challenge paranoid interpretations by asserting they were not important enough to be the target of a conspiracy or to question the logistics of such plots. These strategies were bolstered by external dialogues with confidants who could offer alternative interpretations of situations, something reported by others (Aggelidou & Georgaca, 2017; Allen-Crooks & Ellett, 2014). However, the interviewees chose their confidants carefully lest they received invalidating responses, a key issue noted by Heriot-Maitland, Knight, and Peters (2012). Dialogical theory might be a useful resource in reconceptualizing the paranoia experience and might shed light on the relationship between 'inner' dialogues (i.e., thinking) and 'outer' dialogues (i.e., interactions with others) as the interactional context of paranoia has received little attention from researchers (Cromby & Harper, 2009).

Aggelidou and Georgaca (2017) argue that research on coping with paranoia has neglected the importance of meaning in life. This was a significant dimension for the present study's participants who emphasized the importance of having responsibilities (e.g., holding down a job) and engaging in valued social roles (e.g., as students) and activities (e.g., studying for a degree) all of which gave meaning to their lives.

Although the study was advertised on social media sites specifically for university students and the information sheet made clear that the study was seeking student participants, it is possible that some non-students participated. Future studies could eliminate this risk by recruiting via more well-defined gateways such as student services' platforms, sending via university email accounts, or potentially through apps where student status is verified. Another limitation was that, compared with the 31 students

approached for interview, the interviewees appeared to be more likely to be white, young, and post-graduate students though, in these respects, they were more similar to the larger sample of 174. In comparison with the overall UK student population, the interview sample was comprised of more women and post-graduate students (Higher Education Statistics Authority, 2016) and this might have influenced recruitment and interview responses since there is some evidence that women may be more likely to express their feelings than men (Mirowsky & Ross, 2003). In addition, the interviewees tended to be in employment and were not living in university accommodation and so their experience of student life may well be different from those living in campus accommodation in a town or city away from home.

Future studies could aim to recruit a larger sample with greater ethnic diversity, more men, including interview questions about the influence of ethnicity, gender, social class, and discrimination as well as gathering information on degree subject, employment status, part-time or full-time status, and also financial stress (given the links between this and psychosis risk in students: Richardson, Yeebo, Jansen, Elliott, & Roberts, 2018).

Clinical implications

The mental health needs of students are an important issue of public mental health. A recent study by the BBC reported that the number of students seeking help for mental health problems rose from 50,900 in 2012 to 78,100 in 2017 despite a slight decrease in the number of students going to university over the same period (Spitzer-Wong, 2018). There is, therefore, a need to further develop support for those students in need (National Union of Students, 2017; Royal College of Psychiatrists, 2011).

The findings are consistent with continuum models of psychosis, and given the utility of such models in reducing mental health stigma (e.g., Schomerus *et al.*, 2016), they could be deployed in educational campaigns with students, emphasizing that paranoia is a common and understandable experience, directing them to self-help materials (e.g., Freeman, Freeman, & Garety, 2016) and supporting them in developing valued social roles and social networks.

Clinicians working with people experiencing distressing levels of paranoia need to avoid invalidating responses (Arnold & Vakhrusheva, 2016). Dialogical and narrative therapeutic techniques could be of help in enhancing people's internal and external dialogues (Strong, Lysack & Sutherland, 2008; White, 1995), whilst potential links between paranoid experiences and categories of identity like gender or cultural background could be explored since social inequalities appear to be associated with paranoia (Cromby & Harper, 2009; Haarmans, 2019; Harper, 2011; Janssen *et al.*, 2003). Finally, it may be useful to discuss with clients how a 'paranoia heuristic' may have developed as a way of managing past aversive experiences and to collaboratively develop new therapeutic narratives (Johnstone & Boyle, 2018; Johnstone, Boyle, *et al.*, 2018).

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