Interpersonal Functioning in BPD: A Social Media Perspective R1 (#13634)

Author(s)
Jinnie Ooi (Department of Philosophy, University of Warwick, UK.) - j.ooi.2@warwick.ac.uk
John Michael (Department of Philosophy, University of Warwick, UK.) - J.Michael.2@warwick.ac.uk
Lukasz Walasek (Engineering Psychology, WMG, Univesrty of Warwick) - L.Walasek@warwick.ac.uk

1) Have any data been collected for this study already?
No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?
P1: Individuals with higher levels of BPD features will (P1a) post on social media more frequently.

P2: Individuals with higher levels of BPD features will (P2a) regret posting, and (P2b) edit/delete their posts more frequently.

P3: Individuals with higher levels of BPD features would more often show similar 'cutting off'/withdrawal behaviours on social media, namely unfriending, muting, or blocking other users.

P4: Individuals with higher levels of BPD features would have smaller virtual social connections (e.g., fewer friends on Facebook, followings and followers on Instagram and Twitter).

P5: Individuals with higher levels of BPD features would (P5a) spend more time using social media and (P5b) show greater integration of social media in their social behaviour and daily routines.

3) Describe the key dependent variable(s) specifying how they will be measured.
For P1: seeking social connectedness
In the last two weeks, approximately how many times have you posted on social media?

For P2: impulsivity in social interaction
In the last two weeks, approximately how many times have you
P2a: Regretted posting something on social media;
P2b: Edited or deleted something you posted on social media.

For P3: 'cutting off'/withdrawal behaviours In the last two weeks, approximately how many times have you:
Unfriended, blocked, or muted someone on social media?

For P4: size of virtual social connection
N Facebook friends: How many friends do you have on Facebook? Please type the number of friends below.
N followings and followers on Twitter: How many followers do you have on Twitter? Please type the number of people you follow below.
How many people follow you on Twitter? Please type the number of your followers below.
N followings and followers on Instagram:
How many followers do you have on Instagram? Please type the number of people you follow below.
How many people follow you on Instagram? Please type the number of your followers below.

P5a: Duration of social media use per day In a typical day, how many minutes (approximately) do you spend on each of the following types of social media?
Facebook, Twitter, and Instagram.
P5b: Integration of social media in social behaviour and daily routines Measured using Social Media Use Integration Scale (SMUIS; Jenkins-Guarnieri, Wright, Johnson, 2013). Borderline Personality Disorder Traits Measured using the short form of the Five-Factor Borderline Inventory (FFBI-SF; Deshong, Mullins-Sweatt, Miller, Widiger, & Lynam, 2015)

4) How many and which conditions will participants be assigned to?
This study will employ a survey/correlational design so all participants will be exposed to the same measures.

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.
We will use series of regression analyses to test our hypotheses. Note that the exact specification may depend on the distribution of the data. So if our data violates assumptions of the Poisson regression, we may apply negative binomial or a 0-inflated negative binomial model. Equally, if we observe violations for linear models (e.g. non normality of residuals) we will attempt transforming the data to alleviate these problems. Note that we will report these steps, so that the starting points are always the analyses listed below:

P1. Poisson regression. Times posted ~ BPD score + age + gender.

P2a. Poisson regression. Regret count ~ BPD score + age + gender.

P2b. Poisson regression. Delete count ~ BPD score + age + gender

P3. Poisson regression. Mute/block count ~ BPD score + age + gender

P4. Poisson regression.
Facebook friends count ~ BPD score + age + gender
Twitter follow count ~ BPD score + age + gender
Twitter followed count ~ BPD score + age + gender
Instagram follow count ~ BPD score + age + gender
Instagram followed count ~ BPD score + age + gender

P5a. Linear model. Time (sum) ~ BPD score + age + gender

P5b. Linear model. SMUIS score ~ BPD score + age + gender

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.
We will remove extreme values separately for each Poisson model. We will calculate probability of each response in a poison distribution with the parameters based on our sample. We will remove those with $p < .05$ having applied Bonferroni correction for multiple comparisons. We do not expect outlier for the standardized measures (i.e. BPD and SMUIS) but we will check that the total time (in minutes) and our standard measures do not include outliers (P5a) – we will simply remove responses that fall outside the 1.5 * inter quartile range.

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.
The Qualtrics survey will be open until 600 participants have completed the survey. This allows for a 20% attrition rate for our target sample size of 500.

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)
Exploratory Analyses:
1. Lazarus and Cheavens (2016) suggested that individuals diagnosed with BPD may reintroduce social partners who have been previously cut-off into their social network. We will explore whether this can be observed in social media behaviour.

2. Given that individuals diagnosed with BPD have been shown to have limited real-life networks (Lazarus & Cheavens, 2016; Liebke et al., 2016) we will explore whether individuals with higher BPD features are more likely to form new social partners on social media due to its easy access to peers. To measure both of these behaviours, participants will be asked: 1. In the last two weeks, approximately how many times have you unfriended, blocked, or muted someone on social media? 2. In the last two weeks, approximately how many: a) new Facebook friends did you make b) new people did you follow on Twitter c) new people you follow on Instagram

Variables collected for exploratory purposes: Besides the major social media sites (Facebook, Twitter, and Instagram), we also measured whether participants used Snapchat, Tumblr, Reddit, and Pinterest, and if so, the duration (minutes) they spend on each per day. This will allow us to understand which social media sites are more frequently used by our sample population, which could inform future research.

Additional co-authors: Sakari Lemola, Department of Psychology, University of Warwick, UK. Stephen Butterfill, Department of Philosophy, University of Warwick, UK. Cynthia S. Q. Siew, Department of Psychology, University of Warwick, UK.