Relationships between home clutter and psychological home with stress, mood and well-being: An exploratory study

**Research Proposal**

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Everyday experience suggests that people feel more positive mood and greater well-being after they have cleaned, tidied and/or decluttered their home. This everyday observation has spawned an industry in self-help books and manuals, countless magazine articles, blog posts and television programmes, and has become embedded into the popular understanding of well-being. For example, Kondo (2014) suggests in her bestseller *The Life-Changing Magic of Tidying* that great changes occur in mood and well-being after tidying and decluttering. Kondo’s ideas focus on the positive consequences of the activity itself of disposing of items that no longer “spark joy”; her ideas have yet to be tested empirically.

Home clutter has been shown to correlate with lower life satisfaction in general samples (i.e. those who do not meet criteria for hoarding disorder). Roster, Ferrari and Jurkat (2016, p.32) define clutter as “an overabundance of material possessions that collectively create disorderly and chaotic home environments”. They found that self-rated clutter correlated with lower life satisfaction as well as lower scores on a measure of “psychological home” (home as source of meaning, belonging and identity, found to be associated with well-being). This finding has been replicated in a non-white American sample from a poor area (Prohaska, Celestino, Dangleben, Sanchez & Sandoval, 2018), and for older adults but not younger adults (Ferrari & Roster, 2018). These studies all used the Satisfaction with Life Scale (Diener, Emmons, Larson & Griffin, 1985) as their outcome measure. Home clutter has also been associated with stress: middle-class Americans whose home tours included more clutter-related words showed less healthy daily cortisol patterns and higher depressed mood over a week, suggesting that clutter in the home may contribute to a more stressful and less restorative home environment (Saxbe & Repetti, 2010). Cleanliness and order have been shown to have positive effects: Clean scents have been shown to be associated with morally good behaviours such as reciprocity (e.g. Lilienquist, Zhong & Galinsky, 2010), and participants randomly allocated to an orderly lab environment were more likely to choose an apple rather than chocolate as a snack and to donate money to charity (Vohs, Redden & Rahinel, 2013). Home clutter also predicts procrastination (Ferrari, Roster, Crum & Pardo, 2017).

However, there is still a paucity of psychological research on this topic. Little research to date has examined the impact of home clutter and mess on psychological well-being, stress or mood. These variables are not the same as satisfaction with life. It may be that the relationship between home clutter and life satisfaction is mediated by stress, or being constantly reminded of incomplete tasks.

This exploratory study aims to ascertain whether clutter, stress and well-being are related. It will use quantitative methods and self-report measures of the concepts in a correlational design, with data collected by an online survey. A range of potential mediators and moderators will also be tested. If significant correlations are present, follow-on studies could investigate these relationships further, including the direction of causality of any effects and mediating or moderating factors. This is designed to be a low-cost exploratory study to produce data that may support a future grant application for a more elaborate study (e.g. using an experimental design or multi-level modelling).

*Research Hypotheses*

**H1**: Home clutter will correlate significantly with stress, mood, mental well-being and life satisfaction.

**H2:** Relationships in H1 will be moderated by location where questionnaire is completed (home or elsewhere), psychological home, ability to appreciate beauty, amount of time spent at home, intention to reduce clutter/tidy up the home, and to what extent clutter/mess is made by the respondent vs. others.

**H3**. Relationships in H1 and H2 will be mediated by psychological home, ability to entertain guests in the home, number of uncompleted tasks, and perception of home as beautiful.

Method

*Design*

Correlational study, with cross-sectional data collected using an online survey (Bristol Online Surveys).

*Participants*

A general community sample, preferably with a wide spread of ages, gender and socio-economic status, preferably with a good proportion from outside the university community. To detect significant bivariate correlations of .2 (two-tailed) with an alpha level of 5% and 90% power, a sample size of 258 would be required. However a larger sample size would allow more sophisticated analysis, including multiple regression and structural equation modelling (N >500). For bootstrapping tests of mediation, at 80% power and small-to-moderate path relationships of .26, a sample size of 162 is recommended (Fritz & MacKinnon, 2007).

*Measures*

As well as demographic variables (e.g. gender, age, socio-economic status, country of residence), the following scales will be used:

* *Home clutter* will be measured by the 11 item short version of the Clutter Quality of Life Scale by Roster et al. (2016), measured by a 7-point Likert scale from strongly disagree to strongly agree. Four items measure liveability of space, such as “I have to move things in order to accomplish tasks in my home” and “I can’t find things when I need them because of clutter” while the others assess the emotional and social impact of clutter, such as “I avoid having people come to my home because of the clutter” and “I feel overwhelmed by the clutter in my home”. These are a subset of the 18-item scale found more suitable for quantitative research (C. Roster, personal communication, April 28, 2020). Other measures of clutter are designed for use in hoarding and could create a ceiling effect in the measure. An additional measure is derived from Roster and Ferrari (2019): “How cluttered is your…” followed by living room, your bedroom, kitchen, and bathroom. Response scale is an 11-point scale from 0 (“Not at all cluttered”) to 10 (“Extremely cluttered”).
* *Stress* will be measured by the Perceived Stress Scale, 10-item version (Cohen, Kamarck and Mermenstein, 1983), which is frequently used and has good validity and reliability (Cohen and Williamson, 1988). A four-item version is available but its psychometric properties are poor (Lee, 2012). PSS-10 items include “In the last month, how often have you felt that you were unable to control the important things in your life?” and “In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?”, measured on a five-point Likert scale from never to very often. The period can be changed from “last month” to others.
* *Mood* will be measured by Scale of Positive and Negative Experience (SPANE; Diener et al., 2010) which is a 12-item scale assessing positive and negative feelings such as “positive”, “negative”, “contented”, “sad” and “joyful”. Its advantages over the PANAS are that it measures at lower levels of arousal, and includes more general items enabling a shorter list, which is also more applicable to non-Western cultures where some PANAS items may be experienced more or less often.
* *Mental Well-Being* will be measured by the Short Warwick-Edinburgh Mental Well-Being Scale (SWEMWBS; NHS Health Scotland, University of Warwick & University of Edinburgh, 2008). This is a 7-item version of the often-used scale and shows good psychometric properties and focuses more on functioning than on feeling. It presents statements which participants rate on a five-point scale from “none of the time” to “all of the time”, such as “I’ve been thinking clearly” and “I’ve been dealing with problems well”.
* *Life Satisfaction* will be measured by the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larson & Griffin, 1985). It is a brief scale with five statements, which participants rate on a 7-point Likert scale from strongly disagree to strongly agree, such as “The conditions of my life are excellent” and “In most ways my life is close to ideal”.
* *Psychological Home* will be measured by Sigmon, Whitcomb and Snyder’s (2002) Psychological Home Scale such as “I feel more relaxed when I’m at home” and “I get a sense of security from having a place of my own”, measured on a 7-point Likert scale as the clutter scale above.
* *Possible mediators and moderators*: Ability to appreciate beauty will be assessed by the three beauty items of the Appreciation of Beauty and Excellence Scale (ABES; Martinez-Marti et al., 2016), Other measures will be created specifically for this study as single items: location where questionnaire is completed [home or elsewhere], amount of time spent at home, intention to reduce clutter/tidy up the home, to what extent clutter/mess is made by the respondent vs. others, perception of home as beautiful.

*Procedure*

Participants will be recruited by a variety of means including social media posts, advertisements in the university’s weekly bulletin email, and perhaps via the news media (if university press office approves). SurveyCircle may also be used to recruit up to 100 additional participants (which is the maximum it allows). There may need to be a number of waves of recruitment until a suitable sample size is reached.

Recruitment materials will link to the study page on Bristol Online Surveys, where the first page will act as participant information and consent, following guidance in Coulson (2015). Participants will be invited to give their e-mail address if they wish to enter a prize draw for one of three £25 Amazon vouchers as incentives have been shown to increase participation and likelihood of completing the questionnaire (Goritz, 2006).

Items will be presented on screen across a number of pages, with a progress bar. The order of pages will be randomised by the system. After submission, participants will be thanked for their participation and shown the debrief screen. Recruitment will continue until the minimum sample size is reached.

*Analysis*

Data will be analysed using SPSS. First, missing data will be imputed using multiple imputation. After calculating descriptive statistics, distributions of each variable will be examined and scores transformed if necessary in SPSS to approximate a normal distribution for use with inferential statistics (Tabachnick & Fidell, 1996). Initially, bivariate correlations will be calculated between the predictor variables and outcome variables. Moderation and mediation analyses will use Preacher and Hayes’ (2004) bootstrapping techniques using the SPSS syntax which they provide. Multiple regression will be conducted to estimate the relative predictive power of each variable. With a sufficient sample size (>500), structural equation modelling using AMOS is also a possibility to estimate how well a range of plausible models fit the data.

*Dissemination*

* Paper in a general psychology journal, preferably open access. *Current Psychology* published a special issue with a number of such papers in 2017, and as it is published by Springer, open access would be available at no charge. Alternatively, the *British Journal of Psychology* has open-access available to BPS members (and has a higher impact factor than *Current Psychology*). The *Journal of Environmental Psychology* is also a possibility but is not open-access.
* Conference submission(s) (preferably as oral presentation) to BPS annual conference.
* School of Applied Social Studies internal research seminar(s).

*Data Storage*

Data will be stored confidentially until publication of the study’s findings. After this time, data will be anonymised and then made publicly available on a suitable repository, such as the UK Data Archive or the university’s own repository (OpenAir). In accordance with open science practices, the data will be kept in perpetuity.

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