Perceptions of universal basic income as a population mental health intervention

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Abstract

Background. Despite increasing recognition that clinical interventions are insufficient to improve mental health without corresponding emphasis on population mental health, few studies have compared public perspectives on population and clinical interventions.

Aims. We begin to address this here by examining views of one intervention that holds considerable promise for improving population mental health: provision of basic income as implemented by universal or unconditional basic income (UBI) schemes.

Methods. 622 participants rated the effectiveness of ensuring access to medication, psychotherapy, and income for reducing psychological distress. We manipulated whether participants were asked to rate effectiveness for an individual vs. the population and we asked participants to indicate their support for UBI either before or after making such ratings.

Results. We find that income was rated as effective as psychotherapy for improving an individual’s distress and as most effective at reducing distress in the population. Participants who rated their support for UBI after giving these ratings had significantly higher support than those who answered this question before.

Conclusions. These data reveal the mental health benefits of a traditionally economic instrument to be intuitive to participants in this sample, especially when viewed as population-level intervention.

Keywords: population mental health, Universal Basic Income, psychotherapy, medication, lay perceptions
The term “population-based approach to mental health” refers to any non-clinical intervention designed to improve mental health within a given group, community or population (Purtle et al., 2020). Specialists in both public health (Sampson & Galea, 2018) and psychology (Albee, 1999; Albee & Fryer, 2003; Humphreys, 1996; Harper, 2017) have long advocated for the focus on clinical interventions to be complemented by prevention measures that foster positive mental health at the population-level. Applying interventions to a whole population offers a key corrective to treatments that remain accessible to only a proportion of those who need them (Albee, 1999; Humphreys, 1996).

For example, in the UK although the NHS’ Improving Access to Psychological Therapies (IAPT) scheme is one of the biggest rollouts of psychological treatment ever pursued by a government, it still meets less than 20% of the prevalence of depression and anxiety in the UK community (Clark, 2018).

Another crucial element of population-based approaches is that they acknowledge the role of both proximal determinants of distress, such as interpersonal tensions, occupational stressors and traumatic events, as well as more distal “causes of the causes” of distress (Purtle et al., 2020). Population health perspectives provide a lens through which to consider the broader – and more difficult to study - elements of the socio-ecological contexts in which people live and how exposure to these might combine to impact on health within and across populations (Sampson & Galea, 2018).

Despite growing recognition of the importance of population health perspectives, systematic implementation of population interventions remains to be embedded within mental health policy (Purtle et al., 2020). In the current work, we seek to contribute to this topic by capturing perceptions of a specific population-level intervention for mental health and comparing this to perceptions of clinical interventions. Determining attitudes towards clinical mental health treatment has long been of interest to psychologists and psychiatrists and the corresponding literature reveals a robust preference for psychotherapy over medication (Angermeyer et al., 2017; McHugh et al., 2013; Raue et al., 2009; van Schaik et al., 2004) as well as links between such preferences and causal attributions of mental distress (Nolan & O’Connor, 2019; Dunlop et al., 2012). To our knowledge, however, no previous work has compared perceptions of clinical interventions with a population-level intervention.
We were specifically interested in perceptions of universal or unconditional basic income (UBI hereafter), a class of social security policies that would ensure a regular cash payment is delivered to all individuals within a population and is not means-tested or conditional on certain behaviors or work objectives. Historically, UBI has been conceptualized as an economic instrument designed to address a host of societal ills, including reducing economic inequality (Santens, 2014) and promotion of human rights (Alston, 2017). As such, UBI would not meet Purtle et al.’s definition of a population mental health intervention, which requires interventions to be “designed” to improve mental health. Nonetheless, there is considerable convergent evidence that UBI and UBI-like policies such as unconditional cash transfers, can have robust and sustained positive mental health impacts on communities that have received them.

The case for considering UBI-like policies for improving population mental health begins with the observation that low-income is a robust social determinant of mental health (Silva et al., 2016). Income co-varies with a range of mental health outcomes (Ettman et al., 2021; Sareen et al., 2011) and policies that decrease income are linked to increases in psychological disorder (Reeves et al., 2016). Theoretically, boosts to income are well-placed to influence multiple determinants of psychological health by improving material circumstances, reducing chronic stress and changing behaviours (Johnson et al., 2020; 2021). The evidence base of UBI policies lags behind the theory, as few pilots meet all of the criteria for a UBI intervention in that they are regularly paid to individuals (rather than households), are unconditional and universally applied. One exception comes from the Great Smokky Mountains study in which casino dividends were paid biannually to a Native American population in North Carolina. Longitudinal studies observed a robust reduction of psychiatric symptoms in children from poor families where parents received dividends compared to those who did not (Costello et al., 2010) as well as reduced hospitalization rates in the region (Forget, 2013). Corroborating evidence from other pilots paints an encouraging picture: one recent review of 15 UBI-pilots found consistent positive mental health impacts (Wilson & McDaid, 2021), including improved cognitive functioning and reduced stress (Kela, 2020) as well as greater life satisfaction and lower self-reported mental illness (Kirchner et al., 2019). Elsewhere randomized control trials of one-off
unconditional cash transfers have shown boosts to a range of psychological health measures one year later (Haushofer et al., 2020). Converging evidence supports the assumption that UBI and associated policies can have positive effects on population mental health (see also Gibson et al., 2020; Ruckert et al., 2017).

We set out to answer the following questions. Firstly, do non-clinicians recognize the provision of sufficient income as an effective remedy for mental ill-health? How effective is having sufficient income viewed to be and how does this compare to ratings for psychotherapy and medication? We anticipated income would be rated as less effective than psychotherapy and medication, given the primary emphasis on clinical treatments for addressing mental ill-health (Harper, 2017). We were also interested in whether ratings of the three interventions (income, psychotherapy and medication) would be influenced by whether they were framed as remedies for a specific individual’s distress or levels of distress in the population in general. Asking about interventions and attributions for a specific individual (e.g. Jorm et al., 2005; 2008) or oneself (Nolan & O’Connor, 2019) is commonly employed in research examining preferences and attributions of mental health. One possibility is that this individualized focus of such questions might also influence views of the effectiveness of interventions. To our knowledge, previous studies have not examined views of effectiveness of any interventions, clinical or nonclinical, from a population perspective (although see Rudski et al., 2018, for data on perceptions of social change for reducing mental health inequalities).

We were also interested in whether asking people to evaluate the effectiveness of providing income for addressing psychological distress would impact support for UBI. Our reasoning was that these judgments would make salient the relationship between income and psychological health. Insofar as reducing psychological distress is an uncontroversial and laudable aim, then support for UBI would be greater for individuals who have previously rated income as an intervention for health. We also were interested in whether the framing manipulation (individual versus population) would interact with this, such that the impact of evaluating the effectiveness of income would be greater in the population condition. We examined this with a simple pre-post manipulation in which participants
were randomly assigned to rate their support for UBI as a policy either before or after they made evaluations of the three intervention types. Finally, we examined whether certain variables including political alignment and subjective socioeconomic status (SES; Kraus et al., 2012) predict support for UBI.

**Method**

The Faculty Ethics Committee at [redacted] granted ethical approval for this study (code: #9586/sub2/R(A)/2021/Jul/BLSS_FAEC). All participants provided consent for their data to be used for this project. The study protocol and predictions were pre-registered on the Open Science Framework prior to collection of data. These and corresponding data can be accessed here: [https://osf.io/38ehn/?view_only=467de894240146d6994b17c8bf77571c](https://osf.io/38ehn/?view_only=467de894240146d6994b17c8bf77571c)

**Sample**

622 participants (407 identified as female, 201 as male, 4 preferred not to say, 10 identified with genders other than female or male) took part. Participants were recruited through Prolific.co and were reimbursed at a rate equivalent to the UK minimum wage (£9.00) for a 4-minute study. Participants were only eligible to take part if they were over 18 and live in the UK. The target sample size was determined *a priori* based on the required sample size to detect a small between-groups effect size (d = .20) with a one-tailed between-subjects t-test with standard assumptions of power (0.80) and p-value (.05). On this basis it was determined that a minimum of 310 participants would be required for each level of the between-subjects contrasts, requiring 620 datasets. Participants were included if they had complete data on the intervention ratings and support for UBI (occasional covariate data is therefore missing for some participants; see Table 1).

**Design**
We employed a 2×2×3 mixed design wherein framing (individual, population) and UBI rating (before, after intervention ratings) were between-subjects factors and intervention-type (medication, psychotherapy, income) was a repeated measures factor. The main dependent variables were ratings of effectiveness of each intervention (0 = not at all effective to 100 = very effective) and ratings of support for UBI (0 = bad idea to 100 = good idea).

**Measures**

Participants were invited to take part in a study on “Public perceptions of interventions to improve psychological health”. UBI was not referred to so as to reduce the likelihood of over-sampling from participants with a pre-existing interest in UBI. All participants were presented with a definition of psychological distress adapted from Cromby et al., (2013): *Psychological distress is a term often used by psychologists and mental health practitioners to refer to all of the difficult, troubling or unusual experiences associated with psychiatric diagnoses or mental illness.* The subsequent text differed according to which condition participants had been randomly allocated to.

In the population condition, participants read: “Rates of psychological distress in the UK population are high. For example, nearly 1 in 5 people in England report experiences of psychological distress in the previous week. We would like to know how effective you think different interventions are at reducing levels of psychological distress in the population.” They were then asked to indicate how effective they thought each of the following is for reducing levels of psychological distress in the population from 0 (not at all effective) to 100 (very effective): *Ensuring every citizen has access to relevant medication (e.g. anti-depressants or anti-psychotic drugs), Ensuring every citizen has access to evidence-based psychotherapy,* and *Ensuring every citizen has access to sufficient monthly income to cover basic necessities.*

Participants in the individual framing condition were instead presented with a short description of John (adapted from Jorm et al., 2005).
John is someone who has been experiencing psychological distress. He is 30 years old and has been feeling unusually sad and miserable for the last few weeks. Even though he is tired all the time, he has trouble sleeping nearly every night. John doesn’t feel like eating and has lost weight. He can’t keep his mind on his work and puts off making decisions. Even day-to-day tasks seem too much for him.

They were then asked to rate how effective each of the three interventions would be for reducing John’s distress. Interventions were presented in a randomized order.

All participants were asked to indicate their support for UBI, either before (N = 310) or after (N = 310) they had rated the three interventions. Participants were presented with a definition of UBI adapted from Nettle et al. (2021): *We are interested in what you know and think about something called “unconditional basic income” or “universal basic income”. Unconditional basic income refers to a social security system where every citizen is paid a modest guaranteed income every month, to cover basic necessities. The payment is the same for everyone. The payment is not conditional on what other earnings a person has and they do not have to do anything in particular to receive it.*

Participants were asked to indicate the extent to which they thought it would be a good or bad idea to introduce an unconditional income system of this kind where they live, where 0 = bad and 100 = good. This measure has previously been used in work assessing the impact of the Covid-19 pandemic on support for UBI (Nettle et al., 2021). Participants were also asked to indicate the extent to which they were familiar with the idea of UBI, from 0 = never heard of an idea of this kind before to 100 = I consider myself an expert on this subject.

After the effectiveness judgements and questions about UBI, all participants were asked directly whether considering the effectiveness of income on psychological distress had had an impact on their support for UBI, where -50 = has made me less likely to support it, 0 = has had no impact and +50 = has made me more likely to support it. Finally, a number of covariates were recorded on the basis that they may relate to intervention ratings or support for UBI. Participants gave their age and gender as well as indicated where they place themselves on a single left-right political spectrum (0 =
Redistribution preferences were captured using a single-item measure adapted from Alesina & Giuliano (2009) which asks people to place themselves on a scale from 0 (people should take care of themselves) to 100 (Government should do everything it can to help the poor). Following research showing that subjective measures of social class relate to a variety of social judgments including the endorsement of societal issues as dispositional/individual vs. contextual/societal (Kraus et al., 2012) we also measured subjective socioeconomic status (Adler et al., 2000). Participants were presented with a ladder characterizing where people stand in the UK, with those who are best off in terms of money, education and jobs at the top (rung 10) and those who are worst off at the bottom (rung 0). Participants were asked to indicate which number best represents where they would place themselves on the ladder relative to other people in the UK.

**Data Analysis**

Intervention efficacy ratings were analyzed in R using linear mixed models to address non-independence of ratings clustered within participants. General linear models were employed to determine predictors of support for UBI. Table 1 presents key descriptive variables whilst Table 2 depicts the pre-registered predictions, models and whether or not these were confirmed. In exploratory analyses, person-specific variables were added to explore predictors of UBI support (Table 3).

**Results**

Table 1 depicts the key sample characteristics and indicates a broad range of ages, subjective socioeconomic status and political orientation. All three interventions were rated as effective and endorsement for UBI was high overall. In contrast, familiarity with UBI was low (<50). On average, participants tended to indicate that considering the effectiveness of income on psychological distress had had a positive impact (>0) on their support for an unconditional income system.
Table 1.

*Descriptive statistics (N, mean, standard deviation [SD] and distribution parameters) for all continuous variables*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (18 - 83)</td>
<td>622</td>
<td>34.4</td>
<td>13.0</td>
<td>0.91</td>
<td>0.33</td>
</tr>
<tr>
<td>Medication Efficacy (0 - 100)</td>
<td>621</td>
<td>73.2</td>
<td>21.3</td>
<td>-0.95</td>
<td>0.82</td>
</tr>
<tr>
<td>Psychotherapy Efficacy (0 - 100)</td>
<td>620</td>
<td>77.7</td>
<td>18.3</td>
<td>-1.01</td>
<td>1.35</td>
</tr>
<tr>
<td>Income Efficacy (0 - 100)</td>
<td>621</td>
<td>77.8</td>
<td>20.9</td>
<td>-1.24</td>
<td>1.70</td>
</tr>
<tr>
<td>Support for UBI (0 - 100)</td>
<td>620</td>
<td>65.9</td>
<td>29.0</td>
<td>-0.64</td>
<td>-0.65</td>
</tr>
<tr>
<td>Familiar with UBI (0 - 100)</td>
<td>613</td>
<td>42.2</td>
<td>28.4</td>
<td>-0.02</td>
<td>-1.24</td>
</tr>
<tr>
<td>Changed support for UBI (-50 - +50)</td>
<td>587</td>
<td>20.1</td>
<td>19.2</td>
<td>-0.38</td>
<td>0.36</td>
</tr>
<tr>
<td>Subjective SES (1-10)</td>
<td>622</td>
<td>5.32</td>
<td>1.6</td>
<td>-0.20</td>
<td>-0.50</td>
</tr>
<tr>
<td>Left-Right Spectrum (0 - 100)</td>
<td>604</td>
<td>37.4</td>
<td>23.6</td>
<td>0.30</td>
<td>-0.54</td>
</tr>
<tr>
<td>Role of Government (0 - 100)</td>
<td>608</td>
<td>65.9</td>
<td>24.3</td>
<td>-0.55</td>
<td>-0.24</td>
</tr>
</tbody>
</table>
Table 2.

Pre-registered predictions, models and corresponding results

<table>
<thead>
<tr>
<th>Prediction</th>
<th>Dependent Variable</th>
<th>Model [Fixed Effects/Predictors]</th>
<th>Test</th>
<th>Confirmed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Efficacy ratings will be higher for psychotherapy and medication than providing sufficient income</td>
<td>Efficacy ratings</td>
<td>1: Linear mixed model [Intervention]</td>
<td>F(2,1238.5) = 15.179, p &lt; .001</td>
<td>No, psychotherapy and income rating higher than medication</td>
</tr>
<tr>
<td>2 Efficacy ratings will be affected by whether questions are framed in population vs. individual terms</td>
<td>Efficacy ratings</td>
<td>2: Linear mixed model [As 1 + Individual-Population + Intervention*Individual-Population]</td>
<td>F(2,136.38) = 19.122, p &lt; .001</td>
<td>Yes (see text for specifics on direction)</td>
</tr>
<tr>
<td>3 Efficacy ratings will interact with subjective socioeconomic status</td>
<td>Efficacy ratings</td>
<td>3: Linear mixed model [As 2 + Subjective SES + Subjective SES*Intervention]</td>
<td>F(2,1234.20) = 0.754, p = .471</td>
<td>No</td>
</tr>
<tr>
<td>4 Support for UBI will be greater when assessed after rating efficacy of providing sufficient income for addressing psychological distress</td>
<td>UBI support</td>
<td>4. General linear model [Before-After + Individual-Population + Before-After*Individual-Population]</td>
<td>F(1,616) = 10.667, p = .001</td>
<td>Yes</td>
</tr>
<tr>
<td>5 Support for UBI will be greater when efficacy questions framed in population vs. individual terms</td>
<td>UBI support</td>
<td>4. General linear model [Before-After + Individual-Population + Before-After*Individual-Population]</td>
<td>F(1,616) = 2.998, p = .084</td>
<td>No</td>
</tr>
</tbody>
</table>

*Key fixed effect for testing prediction is highlighted in bold
Ratings of Intervention Efficacy

There was a main effect of intervention (see Table 2, Figure 1A), however this was not in the direction expected for Prediction 1. Pairwise contrasts (with Tukey correction for multiple contrasts) showed that ratings were significantly higher for income and psychotherapy relative to medication (Medication - Psychotherapy: \( p < .001 \); Medication - Income: \( p < .001 \)), and that there was no significant difference in ratings between income and psychotherapy (\( p = .985 \)).

Intervention-type interacted with individual vs. population framing, confirming Prediction 2 (Figure 1B). Tukey-corrected pairwise contrasts showed that whilst medication (\( p > .999 \)) and psychotherapy ratings (\( p = .243 \)) did not differ significantly across framing condition, ratings of income efficacy were significantly higher in the population (marginal mean = 81.7) than individual condition (marginal mean = 73.8, \( p < .001 \)). In the individual condition, there was no difference in ratings of effectiveness for medication and income (\( p = .994 \)), both of which were rated as significantly less effective than psychotherapy (medication – psychotherapy, \( p < .001 \); income – psychotherapy, \( p < .001 \)). In the population framing condition, medication and psychotherapy did not differ in effectiveness (\( p = .338 \)), whilst income was rated as significantly more effective than psychotherapy (\( p < .001 \)) and medication (\( p < .001 \)).

There was no evidence in support of Prediction 3, which was that subjective SES (Kraus et al., 2012) would interact with efficacy ratings.

We also explored whether there was an effect of having first answered questions about UBI on intervention ratings, using a linear mixed model with fixed effects of intervention, order and the interaction term. There was no significant main effect of order (\( F(1,618.22) = 2.575, p = .109 \)), however, the interaction term was significant (\( F(2,1236.57) = 13.293, p < .001 \); Figure 1C). Efficacy ratings for medication were higher when these were assessed after participants had answered questions about UBI (\( p < .001 \)). There were no corresponding differences for psychotherapy (\( p = .549 \)) or income (\( p = .305 \)). We therefore re-ran models 1-3 on data from only those participants who completed efficacy evaluations before UBI judgments (condition “UBI After” in Figure 1C). We did this in order to establish whether the pre-registered predictions hold for those participants whose
judgments should not have been influenced by UBI evaluations. The same global patterns were observed and are reported in supplemental materials.

**Support for UBI**

Prediction 4 was confirmed: participants indicated their support for UBI would be higher if they gave these responses after providing efficacy evaluations (Figure 2). There was no support for Prediction 5. Neither the main effect of framing condition nor the interaction with order reached significance. Exploratory analyses indicated that familiarity with UBI, income efficacy ratings and view of the role of government predicted support for UBI (see Table 3).

**Table 3.**

Output of exploratory general linear model assessing predictors of support for UBI

<table>
<thead>
<tr>
<th>Fixed effect</th>
<th>Estimate</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>UBI Order</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UBI First (vs. UBI Second)</td>
<td>-8.333**</td>
<td>2.841</td>
</tr>
<tr>
<td>Framing Condition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population (vs. Individual)</td>
<td>-0.351</td>
<td>2.927</td>
</tr>
<tr>
<td>UBI Order*Framing</td>
<td>4.210</td>
<td>4.061</td>
</tr>
<tr>
<td>Familiarity with UBI</td>
<td>0.212***</td>
<td>0.038</td>
</tr>
<tr>
<td>Income Efficacy Rating</td>
<td>0.358***</td>
<td>0.052</td>
</tr>
<tr>
<td>Subjective SES</td>
<td>-0.024</td>
<td>0.637</td>
</tr>
<tr>
<td>Political Orientation</td>
<td>-0.097</td>
<td>0.050</td>
</tr>
<tr>
<td>Role of Government</td>
<td>0.303***</td>
<td>0.050</td>
</tr>
<tr>
<td>Age</td>
<td>-0.079</td>
<td>0.080</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (vs. Female)</td>
<td>-2.982</td>
<td>2.326</td>
</tr>
</tbody>
</table>
PERCEPTIONS OF UBI FOR MENTAL HEALTH

<table>
<thead>
<tr>
<th></th>
<th>PFTS* (vs. Female)</th>
<th>Other genders (vs. Female)</th>
<th>Intercept</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-31.30</td>
<td>9.512</td>
<td>20.156**</td>
</tr>
<tr>
<td></td>
<td>17.362</td>
<td>8.238</td>
<td>7.313</td>
</tr>
</tbody>
</table>

***p < .001, **p < .01, *p < .05; *Prefer not to say

Discussion

It is well established that psychotherapy is viewed by both patients and non-patients as preferable and more effective than medication (Angermeyer et al., 2017; McHugh et al., 2013; Rudski et al., 2018). This was also the case in the current sample. For the first time we can compare this with perceptions of the efficacy of having sufficient income for reducing psychological distress and find that this was rated to be just as effective as psychotherapy and more effective than medication. This was contrary to our initial predictions, derived from the observation that income is less likely to be encountered as an intervention for improving mental health than psychotherapy or medication. These findings, however, are perhaps less surprising when considered alongside research showing that the lay populace tend to be more likely than physicians to endorse psychosocial explanations (Jorm et al., 1997; Lauber et al., 2003; McKeon & Carrick, 1991). Insofar as having sufficient income might be better characterized as a psychosocial than biogenetic factor, then the current results would be consistent with this.

We chose income as a factor because of the evidence-base showing that reducing poverty and increasing income can foster mental health. In accordance with this, we find that the positive psychological health implications of providing sufficient income was intuitive to participants in our sample. This finding resonates with recent work challenging the view that there is a lack of public support for upstream, macro-economic policies for addressing population health needs (Smith et al., 2021). Nonetheless, we find it remarkable that participants rated income to be as effective as psychotherapy, usually invoked as the first preference of clinical treatment for improving mental health (McHugh et al., 2013). We are not aware of any studies that have directly contrasted mental health outcomes following economic, psychotherapeutic and psychopharmacological interventions.
and so it is not possible to ascertain the accuracy of the current perceptions. Some work does indicate that economic interventions can be more effective than psychotherapy, at least in certain contexts. Haushofer et al. (2020) measured psychological well-being in 5,576 low-income households in rural Kenya that were randomly allocated to either receive a one-off unconditional cash injection, five-week psychotherapy or a combination of both interventions. One year later, psychological well-being was significantly higher for those who received unconditional cash transfers whilst there was no evidence of long-term psychological effects for those who received psychotherapy alone. Caution is required when applying these findings outside of their Kenyan and low-income context, but they do reveal that in some circumstances income interventions outperform psychotherapy for improving psychological health. Rigorous trials which enable the short and long-term mental health implications of UBI and associated interventions to be assessed and contrasted with clinical interventions are required (Johnson et al., 2021). The current results indicate that lay respondents in the UK might anticipate such trials to show economic and psychotherapeutic interventions to be comparably effective.

We examined whether a population vs. individual perspective might influence intervention effectiveness and this is what we observed. Specifically, income was viewed as significantly more effective when participants were asked about reducing distress within the population rather than for an individual called “John” experiencing distress. Why might this have come about? One possibility is that some participants failed to perceive a need for John to receive funds, or alternatively categorized John as less deserving for some reason based on the information provided. Support for welfare is known to be sensitive to the extent to which a recipient is either in need or is deserving of support (Aarøe & Petersen, 2014; Koostra, 2016). The population framing is more likely to include individuals at the lower end of the income spectrum for whom an income intervention is likely to be particularly beneficial. A related prospect arises from the proportions of persons in each scenario who are experiencing distress. In the individual condition, 100% of those described (i.e., John) are experiencing distress, compared to only 1 in 5 in the population scenario. If sufficient income is viewed as effective principally as a preventative measure designed to decrease distress before it arises, then it may be viewed as more effective at reducing distress for scenarios where this has not already
arisen, which was more often the case in the population scenario. Future studies are needed to unpick the exact mechanisms which led participants to change their ratings across conditions, nonetheless, the pattern supports the idea that a population-perspective can increase endorsement for population interventions for reducing distress.

We consider next the limitations of the current work. Whilst we were able to directly measure perceived effectiveness, we did not directly assess the models and attributions that participants apply to explain the causes of distress. Similarly, we did not ask participants to make preference choices or to rank interventions. It is feasible that people view income and psychotherapeutic interventions to be equally effective yet differ in their preference for their implementation as policy, perhaps as a consequence of views on cost-effectiveness or political ideology. Another limitation is that we asked participants about interventions for reducing distress rather than for a specific diagnosis such as depression or schizophrenia. This was to capture the views of the interventions across the breadth of mental health experiences, including those with a diagnosis as well as sub-clinical distress. This term can also avoid some of the concerns that arise from focusing exclusively on a medical or disease-based model (Kinderman et al., 2013). However, it remains possible that the broadly formulated term increased variability in responses. It is important to also consider that the description of John’s distress was adapted from a vignette description of depression (Jorm et al., 2005). It is well-observed from vignette studies that medication is more likely to be endorsed for schizophrenia than depression (Angermeyer et al., 2017) and the pattern of responding for medication and psychotherapy observed here, maps onto this pattern. It remains to be determined whether effectiveness ratings of income as an intervention differ when descriptions of psychological distress map more closely onto descriptions of schizophrenia and related diagnoses.

The current results show that provision of income as an intervention for psychological distress is perceived to be equally and, in some cases, more effective than clinical interventions. This was particularly the case when participants were asked about interventions to reduce the level of distress in the population rather than for a named individual. The perceived value of income for psychological health was such that support for UBI was higher for participants who had evaluated income as an intervention for addressing psychological distress. These findings comprise the first report of
perceptions of a specific population-level mental health intervention. They show not only that the efficacy of UBI interventions is intuitive to respondents, but that emphasizing the mental health benefits of UBI may hold considerable promise for increasing public support for UBI.
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PERCEPTIONS OF UBI FOR MENTAL HEALTH


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Figures

Figure 1. Effectiveness ratings for interventions. A. Effectiveness ratings (estimated marginal means ± se) by intervention type, collapsing across framing and order. B. Effectiveness ratings (estimated marginal means ± se) by intervention type and framing. C. Effectiveness ratings (estimated marginal means ± se) by intervention type and order (UBI After = UBI was measured after effectiveness ratings).
Figure 2. Support for UBI (estimated marginal means ± se) by order of asking (After = UBI support was assessed after effectiveness ratings).