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Self-affirmation increases reemployment success for the unemployed

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Losing a job is one of life's most stressful events. Furthermore, maladaptive reactions to unemployment can trap people in a vicious cycle that derails their reemployment efforts. The current research tested whether a brief values-based self-affirmation intervention increases the odds of reemployment after a job loss and during unemployment, which presumably breaks this vicious cycle. Two field experiments, including one with a governmental employment agency, found that a 15-min self-affirmation exercise—i.e., reflecting on one's most important values-increased key employment-related outcomes after 4 wk, including the probability and speed of reemployment and the number of job offers. Because the ordeal of job loss and the probability of reemployment may be particularly challenging for individuals above the age of 50 y, we also explored whether the intervention was equally effective for those above and below 50 y of age. Demonstrating the generality of this effect, the efficacy of the intervention did not differ between individuals below and above the age of 50, and it was also effective for both recently unemployed and chronically unemployed individuals. Because self-affirmations have more typically been tested in educational contexts, the current research demonstrates the wide-ranging value of this intervention. By diminishing the vicious cycle of unemployment, the present studies show how a simple self-affirmation intervention can help individuals succeed in the labor market.

social psychological intervention | unemployment | job loss | job search | affirmation

Losing one's job is a major life event that not only causes financial strain but also threatens one's self-definition, reduces the sense of personal control and social status, and produces feelings of shame (1-3). Unemployment can lead to reduced self-esteem, depression, anxiety, and even an increased risk of suicide (3-5). Engaging in a job search to find new employment is the most direct solution to escape unemployment. However, searching for a job is a very resource-consuming and stressful process, fraught with obstacles, setbacks, and rejections (6-8). These experiences tend to deplete energy, diminish motivation, and cause emotional distress for job seekers (9-11). As this stress accumulates over time, these negative physical and psychological effects may further impede the ability of job seekers to find reemployment (6-8).

To support re-employment, many interventions focus on the job search process by emphasizing skill development (e.g., job search techniques, self-representation) and motivation (e.g., self-efficacy, goal setting). Such interventions can represent an effective way to support job seekers and increase their odds of obtaining reemployment by a factor of 2.67 (8).

In the present research, we test a psychological intervention to complement conventional job search interventions (12). We propose that a brief values-based self-affirmation intervention can improve job search success—as reflected in the likelihood of and the time taken in securing a job, and the number of received job offers-of recently and chronically unemployed individuals. By asking people to reflect on important personal values, such as their social relationships or a self-defining skill, values-based self-affirmation interventions reaffirm one's self-integrity, i.e., seeing oneself as a good, efficacious, and worthy person (13, 14). Self-affirmation interventions have been shown to reduce the psychological threats experienced during self-evaluative situations by reminding people of their psychosocial resources and deflecting their focus from particular threats (13). Importantly, these value reflections appear to be successful more consistently when they are not directly relevant to the threat-related domain (13, 15-18). In scholastic settings, values-based self-affirmations have successfully demonstrated long-lasting academic performance improvements, particularly for the most self-threatened demographic subgroups (14, 19-21). To date, self-affirmation interventions typically have focused on scholastic domains and on threats that emerge from stereotyped demographics, particularly gender and race. A substantial empirical gap remains on whether self-affirmation interventions would be effective for broader populations and in the labor market.

Significance

Job loss carries a heavy psychological burden, one that can trap individuals in a vicious cycle of unemployment. The current research investigates whether a brief psychological intervention can break this cycle. For people who lost their job or who were already unemployed, a 15-min values-based reflection exercise boosted their chances of reemployment, reduced the time it took to find a new job, and increased the number of job offers received. Despite additional barriers that can confront job seekers above the age of 50 y, the benefits of the intervention were equivalent across age groups. The current research shows how a brief psychological intervention contributes to solving the pressing societal problem of unemployment.

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Losing one's job and being unemployed is inherently self-threatening. Because the theory of self-affirmation (18) suggests that values-based reflections can attenuate threats to the self, we predicted that a values-based self-affirmation intervention would help the newly unemployed and the chronically unemployed to find reemployment more successfully. In addition, we explored whether the efficacy of the self-affirmation intervention would vary as a function of participants' age or other identity-threatened subgroups. Although challenging for everyone, succeeding in reemployment may be particularly difficult for individuals above the age of 50 y (22). Older unemployed individuals also face additional psychological threats, such as negative age stereotypes (e.g., being less motivated) (22–24). Thus, we investigated whether the effectiveness of the self-affirmation intervention may differ for individuals above versus below the age of 50 y.*

To test whether a values-based self-affirmation intervention improves people's job search success, we conducted two randomized field experiments: an online experiment (Study 1, N = 334) and a longitudinal experiment in cooperation with a governmental employment agency (Study 2, N = 532). The sample of Study 1 consisted of the chronically unemployed individuals ($M_{age} = 38.49$ y, $SD_{age} = 13.65$, Min = 18, Max = 65) who had already been unemployed for on average 3.21 y (SD = 6.30). Participants in Study 2 ($M_{age} = 41.41$ y, $SD_{age} = 12.43$, Min = 16, Max = 63) involved unemployed individuals who registered at a governmental employment agency because they recently had lost their job; at the time of the registration, they were already unemployed (71.8%).

In both studies, participants were randomly assigned to two different experimental conditions. In Study 1, unemployed participants were assigned to either a standard self-affirmation writing task or to a control writing task (14). In Study 2, participants in the intervention group were assigned to the self-affirmation writing task shortly after their registration at the governmental employment agency, while the waiting control group did not complete a writing exercise at this point.[†] Staff at the governmental employment agency who directly interacted with study participants were blind to participants' experimental condition and the specific research hypothesis. The self-affirmation and control writing exercises were administered online and based on preexisting and pretested material suitable for the job market context (14, 20, 25, 26). Participants were first presented with a list of values (e.g., relationships with family or friends, nature/environment; see SI Appendix for a complete list of values). In the self-affirmation condition, participants were asked to indicate the two or three values that were most important to them. They were then asked to spend 10 to 15 min to reflect and write about their selected values and describe why these values were important to them. In the Study 1 control condition, participants were asked to indicate two or three values that were least important to them and to describe why these values might be important to someone else (see SI Appendix for a screenshot of the self-affirmation intervention exercise instructions). As a manipulation check and to reinforce the manipulation, participants were asked to rate the level of importance of the chosen values for them or for others depending on their assigned condition (e.g., "These

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values have influenced my life," vs. "These values have influenced some people").

We used three indicators of job search success. First, we measured participants' reemployment success (i.e., whether they had found a new job or not) 4 wk (Studies 1 and 2) and 8 wk after the intervention (Study 2). Although reemployment success was measured with self-reported data in Study 1, the controlled field experiment setting in Study 2 allowed us to analyze official records on participants' reemployment success. Second, we measured the number of job offers participants had received 4 wk (Studies 1 and 2) and 8 wk postintervention (Study 2). Job offers are an important indicator of job search success because, among other things, having several job offers provides individuals with bargaining power during the final stage of the job search process (27, 28). Third, we measured the time participants needed to find new employment using official records of registration time at the governmental employment agency. A shorter period is the stated goal of public employment agencies because it reduces their expenditures in the form of unemployment insurance benefits. In other words, to the extent that participants become re-employed more quickly, it financially benefits the governmental employment agency.

Results

Our results are based on intention-to-treat analyses and are robust across different models with or without covariates (please see SI Appendix for further details and robustness checks). A logistic regression was used to test the intervention effect on reemployment success (see SI Appendix for a full report of regression models). Assignment to the self-affirmation condition increased the probability of finding new employment within 4 wk by a factor of 2.4 in Study 1 (b = 0.872, P = 0.035, OR = 2.392) and by a factor of 3.5 in Study 2 (*b* = 1.241, *P* = 0.012, *OR* = 3.461) compared to a control condition. The probability of finding a job within 4 wk was 7.5 percentage points higher in the intervention group compared to the control group in Study 2. In other words, participants in the experimental condition were more than three times more likely to find a job (10.9%) than those in the control condition (3.4%). After 8 wk, the intervention effect was no longer statistically significant in Study 2 (b = 0.429, P = 0.138, OR = 1.536). Fig. 1 illustrates the intervention effect on reemployment success in both studies.

In Study 2, we used official records of participants' registration and deregistration dates to measure an additional indicator of job search success: the time that job seekers needed to find new employment. To examine the effect of the intervention on the time needed to find a new employment, we ran a proportional hazards regression, considering not only the event (whether individuals found a job and deregistered from the agency) but also the duration (from their registration until their deregistration). The results of the proportional hazards regression corroborate and extend our prior findings on participants' reemployment success (see Fig. 2 and SI Appendix for full report of regression models). Four weeks after the intervention, the average registration period was significantly lower in the intervention group (M = 27.6 d, SE = 0.30) than in the control group (M = 28.7 d, SE = 0.27), F(1,322) = 7.27, P = 0.007. As shown in Fig. 3, this tendency increased 8 wk after the intervention to a difference of 2.56 d, F(1,322) = 4.14, P = 0.043. The average registration period was significantly lower in the intervention group with 51.11 d (SE =0.93) compared to the control group with 53.67 d (SE = 0.85). Although the difference of 2.56 d may seem small, based on the average daily unemployment insurance benefits in 2022, this

^{*}Although age is arguably one of the most identity-threatening parameters in the job market context, we acknowledge that identification with other demographic characteristics (e.g., gender, race) may also be an identity-threat in the job market context. As reported in the results section and the *SI Appendix*, we performed multiple exploratory analyses to examine whether the effectiveness of the values-based self-affirmation varied as a function of ethnicity, gender, nationality, or educational background. We did not find a consistent pattern across both studies for any of these demographics.

¹The waiting control group was invited to complete the self-affirmation intervention 2 mo later to ensure all participants would ultimately experience (and possibly benefit from) the proposed intervention.



Fig. 1. Percentage of participants with reemployment success 4 wk after the intervention for Study 1 (N = 306) and both 4 and 8 wk after the intervention for Study 2 (N = 323). Compared to the control condition, assignment to the self-affirmation condition increased the probability of finding new employment within 4 wk by a factor of 2.4 in Study 1 and by a factor of 3.5 in Study 2. Participants in the experimental condition in Study 2 were more than three times more likely to find a job (10.9%) than those in the control condition (3.4%) after 4 wk.

difference corresponds to lower insurance benefits per unemployed paid out by the governmental employment agency of CHF 524.80 (approximately USD 584.25). Based on the size of the intervention group, the total costs saved by the governmental employment agency in this study total CHF 77,146 (approximately USD 85,874).

Next, we used negative binomial regression to test the effect that the intervention had on the number of received job offers. We found that participants in the intervention group were significantly more likely to receive job offers within 4 wk of the intervention compared to the control condition in both studies (Study 1: b = 0.777, P = 0.002, OR = 2.175; Study 2: b = 0.400, P = 0.024, OR = 1.492). Relative to the control condition, the intervention increased the number of job offers by 118% (corresponding to an average of 0.24 extra job offers per person) in Study 1 and by 49% (0.21 extra job offers per person) in Study 2 (see *SI Appendix f*or



Fig. 2. Results of proportional hazards regression. The figure illustrates the probabilities of finding a new job and deregistering from the governmental employment agency over the timespan of 8 wk after the registration in Study 2 (N = 323). The green line indicates the probability to deregister for the intervention group, and the red line indicates the probability to deregister for the control group. The shaded areas depict the 95% CIs. The probability was significantly different 4 wk after the intervention (P = 0.012) and nonsignificant 8 wk after the intervention (P = 0.120).



Fig. 3. Mean number of days registered at governmental employment agency 4 wk and 8 wk after the intervention in Study 2 (N = 323). Error bars represent ±1 SE. The average registration period was significantly lower in the intervention group (51.11 d) compared to the control group (53.67 d). This difference corresponds to lower insurance benefits per unemployed paid out by the governmental employment agency of CHF 524.80 (approximately USD 584.25).

full report of regression models). The effect on job offers was no longer statistically significant 8 wk after the intervention in Study 2 (b = 0.197, P = 0.225, OR = 1.218). Fig. 4 illustrates the intervention effect on the number of job offers received 4 and 8 wk after the intervention, respectively.

Next, we tested whether the intervention was more or less effective on reemployment success for individuals aged 50 and above versus those below 50. For reemployment success, the interaction term of the binary age group variable (age 50 y and above vs. below) and the experimental condition was not significant in Study 1 (b = 0.155, P = 0.755, OR = 1.167) nor in Study 2 (after 4 wk: b = -0.480, P = 0.388, OR = 0.619; after 8 wk: b = -0.112, P = 0.728, OR = 0.894; *SI Appendix*). There was also no moderation by age for the number of job offers in either study (Study 1: b = 0.561, P = 0.088, OR = 1.753; Study 2, 4 wk: b = -0.151, P = 0.872; *SI Appendix*). The lack of significant interaction terms demonstrates that the self-affirmation intervention was equally effective for older and younger job seekers' job search success.

Finally, to address the potential concern that the self-affirmation intervention improved job search success due to participants



Fig. 4. Mean number of job offers 4 wk after the intervention for Study 1 (N = 305) and both 4 and 8 wk after the intervention for Study 2 (N = 371 after 4 wk; N = 297 after 8 wk). Error bars represent ±1 SE. Relative to the control condition, the intervention increased the number of job offers by 118% (0.24 extra job offers per person) in Study 1 and by 49% (0.21 extra job offers per person) in Study 2 after 4 wk. There was no significant effect after 8 wk.

accepting lower-quality job offers, we compared the level of self-reported job satisfaction, job-needs fit, as well as salary change relative to prior job (among those who found a new job within 8 wk). For all indicators of job quality, we did not observe any differences between the self-affirmation and control condition (job satisfaction: F(1, 31) = 1.102, P = 0.302; job-needs fit: F(1, 31) = 0.123, P = 0.729; salary change: F(1, 31) = 0.528, P = 0.473). These results suggest that the improved job search success in the self-affirmation condition was not compromised by lower job quality.

Discussion

Unemployment is an inherently threatening situation that can undermine one's sense of self (1, 2, 24). Two experiments found that the introduction of a brief self-affirmation intervention improved the job search success of chronically and recently unemployed individuals. The intervention increased the speed and probability of reemployment and the number of received job offers after 4 wk compared to the control group. A meta-analysis across both studies corroborates the robustness of our findings. The intention-to-treat effect on reemployment success 4 wk after the intervention was b = 1.025 (Z = 3.235, OR = 2.786, 95% CI [1.498, 5.184]), and the intention-to-treat effect on the number of job offers was b = 0.565 (Z = 7.180, OR = 1.760, 95% CI [1.508, 2.054]).

Our analyses in Study 2 established the effectiveness of the self-affirmation manipulation using official employment agency data (rather than self-report) for reemployment success. These findings also enhance confidence in the reliability of the results based on self-reports. In addition, our findings generalized across two categories of unemployment—those chronically unemployed for an average of 3 y and those who only recently experienced a job loss—as well as across different age groups. Furthermore, our effect sizes were conservatively estimated by using intention-to-treat analyses (please see *SI Appendix* for estimates of the complier average causal effects).

Our reported findings have direct policy implications as they offer an easily administered intervention. It may be surprising that such a brief intervention could have such profound real-world consequences. Accumulated self-affirmation research indicates that reaffirming one's self-integrity through value reflection is effective because it breaks vicious cycles of negative coping responses to psychological threats and/or initiates virtuous cycles of positive coping responses (13, 14, 20, 29). As an exemplar of the latter, engaging in self-affirmation may lead to a relatively small positive change in people's immediate job search experience. A single positive experience (e.g., preliminary interest from a prospective employer) may be further motivating for self-affirmed individuals, creating a positive feedback loop that further affirms people's self-integrity. Based on the findings of our longitudinal field experiment, engaging in the self-affirmation exercise appeared to give people a motivational head-start that bore sizable fruit over a 4-wk period but began to shrink beyond that time. Future research is needed to better understand the role of timing and dosage (i.e., multiple opportunities for self-affirmation) in shaping the long-term effects of values-based self-affirmation interventions.

We also tested whether the effectiveness of the self-affirmation intervention varied as a function of participants' age because prior work shows that individuals above the age of 50 may receive fewer job offers and face reduced chances of finding reemployment (22). Across both experiments, the intervention was equally effective for individuals below and above the age of 50 y. One reason might be that experiencing job loss is self-threatening for individuals of all ages. We also conducted exploratory analyses to test whether the self-affirmation was more or less effective for other groups who may experience identity threat in the workplace, but we did not consistently identify any differences based on gender, ethnicity, nationality, or educational background across both studies (see *SI Appendix* for detailed results).

It is important to note that self-affirmation should not be viewed as a substitute to existing job search interventions that teach important job search skills. "Wise interventions"—such as self-affirmation—are not mutually exclusive of those that seek to enhance people's skills in how to search and behave when trying to find a job (12).

In conclusion, we find that a brief self-affirmation reflection offers an effective, scalable, and low-cost intervention for job seekers that can complement existing training- or workshop-based approaches. By investing just 15 min to reaffirm one's values, the probability of finding reemployment across both studies almost tripled (i.e., increased by a factor of 2.79) within 4 wk. The current findings demonstrate that reflecting on one's personal values produces economic value for job seekers in the labor market.

Materials and Methods

This research was approved by the institutional review board at ETH Zurich (Protocol No. EK 2020-N-159 "Study on Careers and Employment"). All participants provided informed consent to participate in the study. Data, analysis code, and further research materials including the intervention materials are available at https://osf.io/x8fkr/?view_only=97ba1e2f70e74388a1a4f7cf7eddc2d5 (32).

Participants. In Study 1, participants were 334 unemployed, job-seeking individuals from the panel provider Prolific, who received £10 for participation. Participants were randomly assigned to the intervention group (n = 171, 51.2%) and the control group (n = 163, 48.8%). The average unemployment duration was 3.21 y (SD = 6.30) with most participants (47.3%) reporting an unemployment duration of 1 y or less. The mean age of the sample was 38.49 y (SD = 13.65), and 30.2% were above the age of 50 y. Fifty-four percent of the final sample identified as male (45.8% female). Participants were based in the United States (24.0%), the United Kingdom (28.1%), other European countries (39.9%), and further countries (8.0%). Most participants had the nationality of the country they lived in (85.3%), and 14.7% were foreigners (i.e., their nationality was different from their current country of residence). Most participants identified as White (73.4%), 5.4% as Asian, 4.5% as Hispanic or Latinx, 2.7% as Black, and 14.0% identified with another ethnicity or preferred to not indicate their ethnicity. Forty-eight percent completed tertiary education beyond high school, and 52.4% completed secondary education only.

In Study 2, participants were recruited via a governmental employment agency in the German-speaking part of Switzerland. According to Swiss unemployment regulations, employees are required to register at a governmental employment agency upon receipt of a layoff notification to be eligible for unemployment benefits. This implies that participants can be unemployed or still be employed (e.g., due to a notice period) at the time of their registration. Upon registration, individuals received an email including a link to sign up for the study. In total, we registered 814 clicks on the link, and 620 (76.2%) individuals signed up for the study. Of these 620 individuals, 556 participated in at least one survey (response rate = 89.7%). Participants who signed up for and participated in the study were eligible to participate in a raffle to win one of five monetary prizes worth CHF 500 (approximately USD 560). Prior to further analyses, we had to exclude 24 of these 556 individuals because of three reasons: 1) Participants deregistered from the employment agency at the same day or before they started the first survey (n = 11); 2) participants' registration date was invalid (n = 8); and 3) participants were unemployable due to illness (n = 5). The remaining 532 participants formed the sample for our analyses. Participants were randomly assigned to the intervention group (n = 261, 49.1%) or the control group (n = 271, 50.9%). At the time of their registration, 72.2% were unemployed (27.8% were still employed). The mean age of the sample was 41.41 y (SD = 12.43) and 32.2% were above the age of 50 y. Forty-five percent of the sample identified as male (55.3% female). Most participants had Swiss nationality (71.8%) and 28.2% were foreigners (i.e., not of Swiss nationality). Data on ethnicity were not collected in Study 2. Eighty-eight percent completed tertiary education beyond high school, and 11.8% completed secondary education only.

Procedure. In both experiments, participants were randomly assigned to a values-based self-affirmation or a control condition. In Study 1, participants were assigned to a standard self-affirmation writing exercise or a standard control writing exercise 1 wk after they had signed up for the study. The self-affirmation writing task and the control writing task were based on preexisting materials (14, 19, 20, 25) and administered online (see screenshots of the study instructions in *SIAppendix*, Fig. S1). We conducted two follow-up surveys with a time lag of 2 wk after the intervention to obtain information about participants' job search success.

In Study 2, participants were randomly assigned to the standard selfaffirmation writing exercise or a waiting control condition upon registration at the governmental employment agency. The waiting control group was invited to complete the self-affirmation exercise 2 mo later to ensure that all participants would benefit from the proposed intervention. We conducted two follow-up surveys with a time lag of 4 wk after the intervention to obtain information about participants' job search success. In a third follow-up survey, we collected demographic information. When signing up for the study, participants also learned that the governmental employment agency was encouraging their participation to signal a supportive environment for the intervention (26, 29).

Measures. We measured job search success with three outcome variables: reemployment success (i.e., new employment found), the time registered at the employment agency, and the number of job offers received. To measure reemployment success after 4 wk, we asked participants in Study 1 two weeks and four weeks after the intervention to report whether they accepted a job offer. We aggregated their answers to a single variable to obtain the dependent variable reemployment success after 4 wk. To measure reemployment success in Study 2, we used official records of the governmental employment agency. Specifically, we created the dependent variable reemployment success by using the deregistration date and deregistration reason as indicated by the agency. The variable reemployment success within 4 wk was coded as 1 if participants deregistered within 4 wk (i.e., 28 d) since the start of the study because they found a job themselves or via the governmental employment agency. If participants had not deregistered within these 28 d since the start of the study, the variable was coded as 0. The variable reemployment success within 8 wk was coded as 1 if participants deregistered within 8 wk (i.e., 56 d) since the start of the study because they found a job themselves or via the governmental employment agency. If participants had not deregistered within these 56 d, the variable was coded as 0.

The time registered at the employment agency as an indicator of the time needed to find a new job was calculated by subtracting the deregistration date from the registration date if participants had deregistered. If participants had not deregistered after 28 d, the value for the time being registered was set to 29 d for a comparison of the average registration period between the intervention group and the control group after 4 wk. For a comparison after 8 wk, the value for the time being registered was set to 57 d if participants had not deregistered after 56 d.

To obtain the number of job offers, we asked participants in Study 1 2 wk and 4 wk after the intervention to report the number of job offers they had received over the course of 14 d. We aggregated their answers to a single variable to obtain the total number of job offers after 4 wk. In Study 2, we asked participants 4 wk and 8 wk after the intervention about the number of job offers they had received

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over the course of the last 4 wk. To obtain the total number of job offers after 8 wk, we again aggregated their answers to a single variable.

Job quality measures of the new employment were job satisfaction, job-needs fit, and salary change. For job satisfaction, participants reported their level of satisfaction with their new job on a 10-point scale from 1 (not at all satisfied) to 10 (completely satisfied). For job-needs fit, participants reported whether their new job fulfilled their needs on a 5-point scale from 1 (not at all fulfilled) to 5 (completely fulfilled). For salary change, participants reported how their salary changed compared to their last employment on a 7-point scale from 1 (strongly decreased) to 7 (strongly increased).

Analytical Approach. The reported coefficients are based on intention-to-treat analyses without further covariates included. We also conducted the analyses with control variables as a robustness check (*SI Appendix*). In both studies, we controlled for gender. In Study 1, we also controlled for participants' unemployment duration because the study sample involved job seekers with varying unemployment duration. In Study 2, we controlled for participants' employment status (employed or unemployed) at the time of the registration at the governmental employment agency. Moreover, we controlled for prior organizational tenure in Study 2 because prior organizational tenure is a proxy for recent experience and familiarity with job search.

The distributions of the outcome variables required different types of regression analyses. For the binary variable reemployment success, we used logistic regression. To consider both reemployment success and the time registered at the employment agency in our analysis, we used a proportional hazards regression to account for the time-to-event nature (often referred to as survival analysis). Participants may or may not find a new employment and deregister (event), and it takes a certain number of days (time) to do so. A proportional hazards regression investigates the time a specified event takes to occur. A positive regression coefficient indicates a better prognosis to find a job. To examine the mean difference in the time registered at the agency between the intervention group and control group, we applied an ANOVA. For the count variable number of job offers, we used negative binomial regression because this variable was positively skewed. Negative binomial regression is a special form of Poisson regression that models the overdispersion of count data when the variance is greater than assumed under a Poisson distribution (30). For the job quality variables job satisfaction, job-needs fit, and salary change, we used ANOVAs to examine whether mean differences existed between the intervention group and the control group among participants who found a new job. To conduct a meta-analysis of the two studies for the common outcome variables (i.e., total number of job offers and new employment found after 4 wk), we followed the procedure outlined in ref. 31.

Data, Materials, and Software Availability. The data, analysis code, and further research materials are available at https://osf.io/x8fkr/?view_only=97ba1e-2f70e74388a1a4f7cf7eddc2d5 (32).

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