Employment-Related Depression and Analyses of Potential Treatment

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Abstract

According to the National Institute of Mental Health Disorders, approximately 26% of Americans suffer from a diagnosable mental disorder any given year. An association between mental illness and socioeconomic status has been found in several studies. This project has both scientific and ethical goals. The scientific goals review the various treatments available to socioeconomic- and employment- related depression disorder. This includes identifying and comparing the efficacy of each treatment and describing any limitations of the methods used and subsequent findings. Ethically, this research aims to shed light on the limitations in our mental healthcare system and political biases that hold us back from development in this area. To provide a tentative solution for the aforementioned challenges, this paper provides a comprehensive analysis of several depression treatments, that cater to the patients' specific needs in terms of type of illness and social class, and explain the reality of treatment accessibility in today's climate. Our results showed that, although only 50% of depression patients are properly treated, it is within our power to treat many more individuals suffering from this illness. However, finding the right treatment requires a lot of patience and persistence which are two traits that depression tends to debilitate. From a safety perspective, this study emphasizes the need to discuss any potential route of treatment with a mental healthcare provider that can assist in narrowing down the most suitable options.

Keywords: quality of life, agency scope, depression, mental health, cognitive therapy, precarious prosperity, neoliberalism, capitalism, poverty, insecurity, layoffs, insomnia

Job Security and Mental Illness

Socioeconomic status, the social standing or class of an individual or group, is often measured as a combination of education, income, and occupation but it is also important to consider race, gender, and access to mental health services when assessing its association to mental illness. The type of occupation, stress levels, and precariousness of employment play a salient role in life satisfaction by determining income level and an overall sense of purpose. There are two proposed hypotheses for this correlation: the social causation hypothesis claims that low economic status causes depression while the social selection hypothesis states that it is actually depression that causes low economic status (Zimmerman & Katon, 2005). The primary aim of this multi-dimensional literature review is to assess the evidence of effects of low socioeconomic status on mental health. The purpose is to (i) provide summary effect estimates and grading of evidence quality - where adequate evidence can be obtained - which can be used for policy and health economics decisions; (ii) determine the most effective intervention methods in helping people with mental illness in recovery and achieving a source of income; and (iii) raise attention to areas where evidence is scarce or lacking to provide directions for future research.

Precarious employment is defined as a "set of conditions such as temporary contact forms, lack of bargaining power and rights, vulnerability in the employee-employer relationship, employment insecurity, and insufficient wages" (Ronnblad et al., 2019). The three main groups of precarious workers are 'atavists', 'nostalgic' and 'progressives'. Atavists are former working class members who have lost their access to secure or meaningful employment and, thus, lost their 'past'. Nostalgic are migrants and ethnic minority members who have

left their home countries and, unable to find meaningful work in their new countries, lack a 'present'. Progressives are educated members of the precariat who do not have access to a career path, thus also lacking a 'future' (Standing, 2014). What unifies them all is the overarching alienation and insecurity of precarity. This type of occupational instability is a social determinant that is strongly associated with adverse health outcomes.

These factors contribute to a turbulent work environment, in which employees do not have security or power. Not only is it unpredictable how long the individual will have the job, but even when they are employed, they aren't guaranteed liveable wages as employees. In addition, there is no opportunity to develop new skills through internships and job training as there is in a more traditional work setting. This leaves so-called *Precariats* in stagnant positions with no career prospects, incapable of moving up the employment ladder since they are not given the time and resources to succeed.

Mental illnesses are health conditions involving changes in emotion, thinking, or behavior. Socioeconomic status and mental illness are both complex terms that constitute an array of causes and effects but several studies have reported that precarious workers have an increased vulnerability to psychological distress and suicidal ideation (Kachi et al., 2014). Employment status is one of the most important components of socioeconomic status, which is also related to an individual's resource availability and psychosocial conditions associated with exposure to stress. The linkage between class position and mental disorders has been found to be especially strong in affective and psychotic disorders (Hollingshead & Redlich, 2007). This negative association is most common in individuals diagnosed with depression, bipolar disorder, and schizophrenia.

Since precarious employment is associated with several socioeconomic factors related to poorer mental health, socioeconomic factors could have inductive effects on the correlation between precarious employment and mental health in workers. However, it was found that even when controlling for potential confounding variables, precarious employment was significantly associated with experiencing depressive mood among adult wage workers (Han et al., 2017).

Race and Gender

Given systemic and structural issues such as gentrification and the mass privatization of healthcare in America , it would be expected that racial/ethnic minorities would struggle more with mental illness. High unemployment is conceptualized as a stressor having serious effects on individuals' mental health. Workers who lose employment due to economic downturn experience stress from economic hardship and the stigma of job loss. To regain employment, workers may settle for underemployment in low-skill, often part-time jobs, experiencing possibly steep declines in income. Exposure to structural risk, deriving from race-specific unemployment rates that exceed overall national rates, along with, during recession, their relative vulnerability to economic and emotional insecurity (fear of job loss or income loss, difficulty finding employment), means greater stress for Blacks compared to Whites, and higher probability of chronic mental illness. African Americans' high unemployment rates are rather stable but susceptible to growth during recessions. Moreover, it was found that Whites are more likely to get mental health counseling during primary care consultations and more likely to have access to and to use mental health services to address symptoms of mental illness. This suggests that perhaps the reason for the NSDUH data showing that Whites suffer from more chronic mental illness may just be a factor of self-awareness and willingness to report.

With this considered, we would expect diversity training to be a major factor of psychotherapy—however, it is not. In their research, Hook and colleagues (2016) found that therapists, regardless of their race, all too often respond to Black, Indigenous, and other Persons of Color (BIPOC) clients with tell-tale signs of *cultural discomfort*, such as denial and avoidance. A therapist's cultural comfort is defined as the ease, openness, and non-defensiveness with which one ought to address salient sociocultural issues with clients (Bartholomew at al., 2021). However, multicultural theory, teaching, and research in psychotherapy thus far has tended to focus on increasing knowledge of BIPOC in ways that center "Whiteness" or prioritize the feelings and experiences of White people, thus neglecting issues such as liberation, social justice, and racial and historical trauma (Singh et al., 2020). Of course, the experience of racialized emotions is often intersectional, so it cannot be divorced

from other systemic or social structures. As such, therapists' cultural comfort when discussing anti-Black racism in session may have added gendered, class-based, and other social dimensions worth addressing.

Vocational Rehabilitation as a Form of Treatment

Persons with severe mental illness have lower employment rates than other disability groups and while there has been government initiative to tackle this problem, labor force participation is still generally reported to be less than 50% among individuals with severe mental illness living in the United States (Andrews et al., 1992). The two most prominent government-funded programs are SSI and SSDI: SSI provides a fixed amount of money for persons with a disability who are in financial need, without regard to their work history but the payments actually decrease as earnings increase. Specifically, earnings about $65 in each month reduce benefits by $1 for every $2 earned. SSDI payments are based on the amount a person paid in Social Security payroll taxes prior to becoming disabled, meaning those who paid more receive higher benefits. However, even with financial stability, people with schizophrenia, bipolar disorder and similar illnesses often want to work in competitive jobs, for their own satisfaction as well as for economic reasons (Alverson et al., 1995).

Supported employment was defined, in the Rehabilitation Act Amendment of 1986, as a federal program intended for "individuals who, because of their handicaps, would not traditionally be eligible for vocational rehabilitation services" (Bond et al., 1997). There have been several programs developed over the years to tackle this issue of income insecurity in the disabled. The 'place-then-train' and 'choose-get-keep' were among the most common, and successful, models. In the 1950s, the Fountain House of New York City pioneered the innovative approach to helping people with severe mental illness adjust to community living. They created a space, which they named the clubhouse, where people suffering from mental illness can socialize and participate in work units as part of the work-ordered day. Researchers found that participants benefited from participation in the clubhouse, in large part because they felt needed in their micro-society (Beard et al., 1982). This program pioneered transitional employment by putting people in these safe spaces where they feel comfortable and confident in the environment in which they work. Eventually, as patients seek treatment and build up their résumés, it becomes easier to participate as a working member of the larger community.

Since the establishment of the Fountain House, many other mental health treatment programs have taken a similar approach to assisting individuals get back into the real world; one such approach was Wehman's (1986) 'place-then-train' philosophy which targeted people with the most severe disabilities, who were mostly ignored by traditional employment programs, and minimized prevocational assessment. The program was supported by on-site job coaches who intensively trained clients in their work roles and provided unlimited support.

Another example is the 'choose-get-keep' model that was developed by Danley and Anthony (1987). The choose-get-keep model is a supported education program, meaning it allows people to participate in an education and/or training program, alongside their mental health services, that would allow them to achieve their learning and recovery goals and become gainfully employed in the job or career of their choice. This program places a larger emphasis on career planning over building a history so that clients can select, obtain, and maintain jobs. The idea behind this is that allowing the client to find a career path they feel happy in will only magnify the improvements from the mental health services they are enrolled in.

These rehabilitation programs proved to be successful but it was found that the time-frame of the study played a big role in client outcomes and job retention (Bond et al., 1997). Studies utilized either an accelerated program or a gradual one. Accelerated programs put participants onto supported employment services immediately after study admission. Examples include working as a store clerk or cashier, but having the support of job coaches providing systematic instructions and intensive preparation so that they may succeed in their tasks. On the other hand, gradual programs required four months of prevocational work readiness training before participants were eligible for supported employment. Though it was hypothesized that taking it slow and easy with a gradual program would produce the best results, this

method proved ineffective when looking at long-term outcomes. One year after the study, it was found that clients in the accelerated program had modestly better employment outcomes than clients in the gradual condition (Bond et al., 1997).

Evaluations of vocational interventions typically compare wages earned but fail to recognize how earnings affect participants' total income, including SSI, SSDI, food stamps, access to further education and training and so forth. Under current conditions, work appears to contribute relatively little to income growth for persons with mental illness, but it has been shown to help people out of social isolation and boost their self-confidence.

Antidepressants, and Cognitive Therapy

The impact of depression on occupational productivity is an issue of profound social and economic importance. The direct workplace cost of depression to the United States in terms of lost time at work has been estimated at more than 172 million days yearly, based on 3% to 5% -month prevalence rates for major depression (Dew et al., 1991). Effective treatment of depression should thus reduce work impairments in individuals suffering from depressive disorders and speed their return to optimal occupational functioning. The success of mental disorder treatment can be measured according to incidence, re-entry into treatment, continuity of treatment, and prevalence.

The NIMH-funded Sequenced Treatment Alternatives to Relieve Depression (STAR*D) trial is the largest and the longest study ever conducted to evaluate depression treatment. There were four stages of treatment examined in order to determine which is most effective in treating Major Depressive Disorder (MDD). Each of the four levels of the study tested a different medication or medication combination and those who did not become symptom-free could not proceed to the next level of treatment. In order to produce results that could be generalized to a broad group of real-world patients, most adults with MDD were eligible.

In most clinical trials of treatment for depression, the measure of success (outcome) is called 'response' to treatment, which means that the person's symptoms have decreased to at least half of what they were at the start of the trial. In STAR*D, the outcome measure was a "remission" of depressive symptoms—becoming symptom-free. This outcome was selected because people who reach this goal generally function better socially at work, and have a better chance of staying well than do people who only achieve a response, but not a remission.

In level 1, participants were given the antidepressant citalopram, a selection serotonin reuptake inhibitor (SSRI), for 12 to 14 weeks. Those who became free of their depression symptoms during this time could move on to a 12-month follow-up period during which the citalopram was continued, and patients were monitored. However, those who experienced intolerable side effects or did not become symptom-free during this level were moved up to level 2.

In this next level, participants had the option of switching to a different medication or adding on to the SSRI they had already been administered. Those who joined the 'switch' group were randomly assigned to either sertraline, bupropion-SR, or venlafaxine-XR. On the other hand, those who joined the 'add-on' group were prescribed either the non-SSRI antidepressant bupropion-SR or buspirone, which is not an antidepressant but enhances the action of an antidepressant medication. Participants also had the option to switch to, or add on, cognitive psychotherapy. As in level 1, those who became symptom-free with their level 2 treatment could continue with that treatment, and entered the 12-month-follow-up period. The cycle continued and the researchers continued finding alternative medication for those who were not symptom-free, or experienced intolerable side effects. The medications prescribed in levels 3 and 4 differed from SSRIs and other medications used for previous levels in the way they worked in the brain.

It took an average of six weeks of treatment for participants to improve enough to reach a response and nearly seven weeks of treatment for them to achieve a remission of depressive symptoms. Over the course of all four treatment levels, almost 70% of those who did not withdraw from the study became symptom-free, which should serve as a sign of hope for those suffering with treatment-resistant depression. These results should

further bolster psychiatrists looking into individualized treatment plans, emphasizing that, more often than not, there is a treatment to be found for each and every client. The optimism of these findings could help motivate patients to continue on their healing journey, with a high chance of being reintegrated into society through employment or any other sort of fulfillment they may have lost to the illness.

With the knowledge that depression can adversely affect occupational functioning, it is helpful to consider whether there is a relative advantage of cognitive therapy or antidepressant in improving employment status. Few studies have examined the differential effects of psychotherapy and medications on employment status. One of the most prominent is a 1992 study, by Mintz and colleagues, which was a comprehensive review of the association between therapy and antidepressant treatment, and improvements in occupational functioning by acquiring and examining data from ten treatment studies. However, the results of the study were rather dubious, indicating that psychotherapy was no more effective than the sugar-pill placebo. A more recent meta-analysis by Timbie and colleagues (2006) examined the effects of depression treatments on more objective indicators of work outcomes, such as number of hours or days worked and employment status. Across all four studies they looked at, the estimated effect of treatment v. control on improving work-related functioning was small.

Fournier and colleagues (2015) also looked at this comparison between therapy and medication. Over a 28 month period, they randomly assigned participants either to cognitive therapy (n=48) or the SSRI paroxetine (n=93). Acute cognitive therapy and antidepressants were provided for 16 weeks and depression symptom severity was assessed weekly with the Hamilton Rating Scale for Depression (HRSD) while the Longitudinal Interval Follow-up Evaluation (LIFE) was used to track changes in employment status. For the first 8 weeks, antidepressant medication treatment was provided with paroxetine monotherapy. For the remaining 8 weeks, augmentation of paroxetine was desipramine, or lithium was allowed if clinically warranted. Following acute treatment, half of the antidepressant group responders were randomized to continuation medication (continuation antidepressant subgroup) and half to withdrawal onto a pill-placebo (placebo withdrawal subgroup). Cognitive therapy responders ceased regular contact with their therapists following acute treatment and were allowed up to three booster sessions.

Table 1 Intake employment status by condition and site

	University of Pennsylvania, *n (%)* Antidepressant group (*n* = 39)	University of Pennsylvania, *n (%)* Cognitive therapy group (*n* = 22)	Vanderbilt University, *n (%)* Antidepressant group (*n* = 54)	Vanderbilt University, *n (%)* Cognitive therapy group (*n* = 26)
Full time	23 (59)	8 (36)	38 (70)	19 (73)
Part Time	10 (26)	7 (32)	9 (17)	3 (12)
Unemployed	6 (15)	7 (32)	7 (13)	4 (15)

Note. From "Gains in employment status following antidepressant medication or cognitive therapy for depression," by Fournier et al., 2015, The British Journal of Psychiatry, 20, p. 335.

It was found that individuals who responded to a 4-month course of cognitive therapy were more likely to be employed full time 2 years later than were participants who responded to antidepressant medication (*Table 1*). The rate of full-time employment improved from 56% at intake to 89% at the end of follow-up for the cognitive therapy group (33 percentage points in total), but it only improved by 5 percentage points in the antidepressant group, from 66% at intake to 71% at the end of follow-up. The main difference between the two groups is that the effects of cognitive therapy seemed to have lasted beyond the actual treatment period, meanwhile, affect improvement by antidepressant treatment seemed to only be a temporary fix that relied on medication continuation.

Discussion

From the two main forms of vocational rehabilitation (place-then-train and choose-get-keep) to the comparison between antidepressants and cognitive therapy, research has identified many methods that may assuage the negative association between socioeconomic status and depression. Evidently, there is some truth in both the social causation hypothesis and the social selection hypothesis.

The concept of transitional employment as seen in vocational rehabilitation programs adopts this philosophy of social causation, that low economic status causes depression, and aims to halt this cycle by helping unemployed persons find a stable income. On the other hand, studies looking at anti-depressant treatments and cognitive therapy – such as the STAR*D study—take an approach following the social selection hypothesis. To reiterate, this hypothesis claims that it is actually depression that causes low economic status. Therefore, it should be expected that helping patients find treatment for their illness should serve as a preventative measure against financial instability. Of course, it is not black and white but understanding these two hypotheses allows us to adapt to any given situation.

The results from STAR*D study emphasize the need for high-quality care and attention to the individual needs of patients. Doctors should provide medication at optimal doses, be aware of and offer treatment choices, and maintain diligent monitoring of patients both during treatment and after they become symptom-free so as to avoid relapse. Like other medical illnesses, depression affects different people in different ways, but a wide range of effective treatments exist. Using the rate of "remission" of depressive symptoms as a measure of success, the results of this study were very optimistic. The study showed that over the course of all four treatment levels, almost 70 percent of those who did not withdraw from the study became symptom-free. Considering that the typical statistics for antidepressants show a 50 percent success rate—if not less—these results offer promising hope of recovery if only doctors and patients are patient enough to see the treatment through. This also indicates that these individuals would be ready to get back into the employment field and find fulfillment in their contributions to society, while also being able to support themselves financially. However, the employment field they enter is crucial to their wellbeing beyond treatment. Precariats, whether Atavists, Nostalgics, or Progressives, face a condition that is sure to bring about a lot of psychological distress for an individual but these findings present a compelling argument for future policy implications to mitigate these issues.

Taking into consideration the multi-faceted definition of socioeconomic status is an integral aspect to understanding the results of this work. All too often, race is disregarded in favor of a lens focusing solely on economic status. In most of the studies addressed in this meta-analysis, race and gender were sidelined in favor of other aspects of socioeconomic status but it is important to understand intersectionality and develop interventions on that basis. Moreover, future research should consider how earnings affect a participants' total income, including SSI, SSDI, food stamps, access to further training, and training and so forth.

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