



People with mental health problems in the labor market

Differences in job appraisal for people who experience a depression

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Abstract

This research elaborates on the differences in the relationship between experiencing a depression and job appraisal. With this research, individual-level moderators (age, gender, and economic status) will be investigated as well as a contextual-level moderator (level of public stigma). Therefore multilevel techniques are used on a sample of 11353 respondents retrieved from the Eurobarometer 73.2 from 2010 from 27 European countries. With this research, it is found that people who experience a depression have a lower job appraisal than people who are not experiencing a depression. None of the expected moderators showed a significant effect. There are no factors found who influence the relationship between experiencing a depression and job appraisal. This study had to deal with a few complex concepts (mental health problems, discrimination, stigmatization), which brings limitations regarding the measurements. Recommendations for future research are to include religion as an individual level variable and include moderators at the organizational-level. It is also recommended to start with a smaller sample and do qualitative research to see why some people who experience a depression have a lower job appraisal than others.

Keywords: depression, job appraisal, stigmatization, discrimination, employment.

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1 Introduction

Employment is an important element in the society, it is one of the most important things for social inclusion (Mitchell, Betts, & Epling, 2002). It is stated that employment defines individuals, provides them with an identity (Seeman, 2009), and gives them a higher life satisfaction (Melin, Fugl-Meyer, & Fugl-Meyer, 2003). Unfortunately, not everyone's life satisfaction increases because of their employment. There are some groups in society who have the feeling that they are discriminated against at their work. This feeling of discrimination at work can be influenced by negative labels people in a society have against people with mental health problems (Hipes, Lucas, Phelan, & White, 2016). Roehling, Roehling, and Pichler (2007) state that it is important to notice that perceived discrimination, in general, involves two things: (1) a perception that one is treated differently based on membership of a group, and (2) someone believes that the differential treatment was unjust or unfair. So perceived discrimination does not always mean that there is "actual discrimination" it means that people have the feeling that they are discriminated against, justly or not. So, the increase in life satisfaction because of employment does not account for everyone, because some people have the feeling that they are discriminated against at work.

There are some groups in society which are more likely to perceive employment-related discrimination than others. There are studies that found evidence that people with mental health problems feel more discriminated against at their work than people without mental health problems. For instance, Hipes et al. (2016) found evidence that there is discrimination in the labor market against people with mental health problems. Nicolas Rüsçh et al. (2014)

even state that employment-related discrimination is a common experience for people with mental health problems. Baldwin and Marcus (2006) did research on employment-related discrimination towards people with mental health problems and looked especially at wage discrimination. This study found a link between people with mental health problems who feel discriminated against at work and inexplicable wage differences. Baldwin and Marcus (2007) found in their research one year later that these wage differences can be explained by stigma and discrimination towards people with mental health problems. From existing literature, it can be assumed that people with mental health problems perceive more employment-related discrimination than people without mental health problems.

What is interesting in these researches about employment-related discrimination is that not everyone with mental health problems perceives employment-related discrimination. In the sample of Nicolas Rüsch et al. (2014) for instance, which only consisted of people with mental health problems, a bit more than one-third of the people reported no work-related discrimination. From the people who are employed, the ones who reported to have fewer levels of stigma did not experience employment-related discrimination. In the research of Baldwin & Marcus of 2006 as well as in their research of 2007, they have found that there are people with mental health problems who feel they are discriminated at work, but there are also people with mental health problems who do not feel discriminated at work. But Baldwin and Marcus do not pay attention to the question *why* there are differences in perceived employment-related discrimination for people with mental health problems. The question *why* seems still unanswered in the existing literature. With this research, I will search

for explanations for the differences in the relationship between mental health and employment-related discrimination

Employment-related discrimination is a feeling which is hard to measure and is not available in the used dataset. Therefore, perceived employment-related discrimination will be measured by means of the job appraisal of people with mental health problems. I will investigate if people with mental health problems have the feeling that they receive respect and recognition that they deserve at work. By looking at the received respect and recognition of the respondents, it will be shown if they have the feeling that they feel appreciated and respected for their work. I will use a sample including people with mental health problems and people without mental health problems. In this way, I can investigate which people have the feeling that they feel less appraised and receive less recognition than they deserve at work and if that is related to mental health problems. Mental health problems will be measured by the MHI-5 scale of depressive symptoms. Therefore, I can only make statements about people who are experiencing a depression in this research. The reasoning behind the MHI-5 scale will be further explained in chapter 3.

It is important in this research to first of all look at micro level factors which have an influence on the relationship between experiencing a depression and job appraisal. To my knowledge, there is no existing literature on which individual factors can influence the relationship between experiencing a depression and job appraisal. The existing literature on discrimination in general shows individual factors which can influence the perceived discrimination of people. Based on discrimination literature older people, women, people with a

low economic status are expected to perceive more employment-related discrimination. So in this research, it will be investigated if older people, women, people with a low economic status have an influence on the relationship between experiencing a depression and job appraisal.

Second, the macro level will be investigated, because I am interested if there are contextual differences which can influence the relationship between experiencing a depression and job appraisal. I will investigate if, in countries with a high level of public stigma towards people with mental health problems, the people who experience a depression also feel less job appraisal.

The term 'stigma' descended from describing the mark or scar left when branding typically animals. Nowadays, the term public stigma refers to a mark or scar which we give to a certain minority in society. There is not one clear definition of public stigma, because it is a complex concept, but there are some researches who define stigma in their research. For instance, McDaid (2008) defines public stigma as "a severe social disapproval due to believed or actual individual characteristics, beliefs or behaviors that are against norms, be they economic, political, cultural or social". According to Shaw et al. (2009), employment-related discrimination and stigma are a social phenomenon, which is grounded in a society. Public stigma and discrimination towards people with mental health problems are determined by the way a society tolerates human differences. In this research, public stigma will be seen as a phenomenon which is influenced by two things. The prejudices and ideas a society has about a group (minority) in society, and the way they treat that group or minority based on their prejudices. Seeman (2009) states that the public stigma of mental illness in

a country, in some countries worse than others, has an influence on employment-related discrimination. It may be the case that there is not actually a higher level of public stigma in some countries, but that it is more open, which allows a perspective of what is going on and what needs to be changed. So on the macro level, the level of public stigmatization of the included European countries will be estimated. In this way, it will become visible if the level of public stigma in a country has an influence on the relationship between experiencing a depression and job appraisal.

Research on this subject has a scientific relevance because relatively little research has been done to directly explore and explain discrimination related to mental illness in the context of work and workplaces (Shaw et al., 2009). When searching in existing literature, there is little literature available about why some people who experience a depression have a lower job appraisal. There is also little research done about the effects of public stigmatization on individuals and especially focused on employment. So in this not very well developed field of research, I try to contribute to developing this field of research more.

Because there is little literature available on this subject, I will investigate this not so well developed subject about the differences in the relationship between experiencing a depression and job appraisal. Therefore, my research questions are:

- Do people who experience a depression have a lower job appraisal than people who do not experience a depression?

- Are there differences in the relationship between experiencing a depression and job appraisal based on 1) gender, age, and economic status, as well as 2) countries with different levels of public stigma?

These research questions will be answered by means of data retrieved from the Eurobarometer 73.2 from 2010. In this dataset, data is available about 27 countries from the European Union. Because I try to find explanations on the micro level as well as on the macro level, multilevel analyses will be used to answer these questions.

In this master thesis, you will read in the next chapter (chapter 2) the theoretical framework of this research. In this chapter, it is presented what the existing literature says about job appraisal for who experience a depression, and on which theories the hypotheses are based. There are hypotheses derived on the micro level and at the macro level. In chapter 3 I will explain the used dataset, which methods are used to analyze the data and how the variables will be measured. Chapter 4 is the chapter in which the findings of the analyses will be presented. In the last chapter (chapter 5) I will discuss and conclude about the findings of my research and do some recommendations for future research. After that, you can find the reference list and appendixes.

2 Theoretical framework

In this chapter, the theoretical framework will be presented. In the literature little evidence is found about the relationship between experiencing a depression and job appraisal. So the theoretical framework will be based on the existing theories on this subject, combined with existing theories on perceived discrimination and mental health in general. From the theoretical framework, the hypotheses will be derived. First I will look at existing theories about mental health, job appraisal, and discrimination. Then I will investigate which micro and macro factors could influence the relationship between experiencing a depression and job appraisal.

2.1: Discrimination towards people who experience a depression

There are a lot of studies that state that people with mental health problems perceive more discrimination than people without mental health problems (e.g. Hipes, 2016; Nicolas Rüsch, 2014; Baldwin & Marcus, 2006; Baldwin & Marcus, 2007). In this paragraph, I will investigate the existing literature about the differences in perceived discrimination and job appraisal for people with and people without mental health problems.

The majority of people with (a history of) mental health problems wants to work, and consider themselves able to work. However, the employment rate is low among people with mental health problems (Seeman, 2009). Frijters, Johnston, and Shields (2014) found clear evidence that people with mental health problems differ systematically from people without mental health problems, regarding their employment rates. The employment rates are about 12 percent lower for people with mental health problems, compared to people

without mental health problems. There are many studies available who found evidence for the differences between the employment rates of people with mental health problems and people without mental health problems.

The differences in employment rates for people with mental health problems can be due to discrimination. For instance, Sakellari, Lehtonen, Sourander, Kalokerinou-Anagnostopoulou, and Leino-Kilpi (2014) state that people with mental health problems are among the most stigmatized, discriminated against, marginalized, disadvantaged, and vulnerable members of society. From the theories used in the introduction section, it can be suggested that people with mental health problems also perceive more employment-related discrimination. Hipes et al. (2016) state in their research that there is discrimination in the labor market against people with mental health problems. This discrimination is expressed in higher unemployment rates and underemployment for people with mental health problems. People with mental health problems also reported more cases of being passed over for jobs for which they were qualified. Nicolas Rüsç et al. (2014) state that for people with mental health problems, employment-related discrimination is a common experience. Baldwin and Marcus (2006) state in their research that people with mental health problems have to deal with the highest levels of stigma against them and lowest employment rates, in comparison with all the medical disorders. That they are the most stigmatized is due to the stereotype a society has about people with mental health problems. These stereotypes are associated with less capability of participating in the workforce. Since the early 1990s medication have been developed in a way that it is possible for people with mental health problems to control the symptoms of their mental health problems. This made it possible for people with mental health problems to participate in the labor market and hold

their jobs. Although the medication shows good results for people with mental health problems in the labor market, employment and wages rates did not increase significantly ever since (Baldwin & Marcus, 2007). This could imply that the prejudices towards people with mental health problems are still there.

It can thus be the case that people with mental health problems with the same education and job experience as people without mental health problems do not get the same promotions or have the feeling that they are less recognized for their work. Their feeling of unfair lower promotions and recognition is likely to lead to a lower job appraisal since job appraisal is measured by perceived respect and recognition that their efforts at work deserve. Therefore my first hypothesis is that people who experience a depression have a lower job appraisal than people who do not experience a depression.

Hypothesis 1: *People who experience a depression have a lower job appraisal than people who do not experience a depression.*

2.2: Individual-level moderators

In this chapter, I will reason why the relationship between mental health and job appraisal is different for some individual-level moderators. Based on existing theories the individual-level moderators are age, gender, and economic status.

2.2.1: Age

Little evidence is found about the influence of age on the relationship between experiencing a depression and job appraisal. However, there is some research about the influence of age on the relationship between mental health

and perceived employment-related discrimination. There are a few explanations in the literature why people from a certain age category are more likely to perceive discrimination than others. First of all, Frijters et al. (2014), stated in their research on the effect of mental health on employment that the risk of unemployment for people with mental health problems is larger for older than for younger workers. According to Frijters et al. (2014), this is a reflection of the fewer opportunities the older people get when they are unemployed, compared to young people. They do not argue why older people are at a higher risk for unemployment and fewer opportunities.

Second, Cornelius, van der Klink, Groothoff, and Brouwer (2011) and Lagerveld et al. (2010) (as cited in Nielsen et al. (2012)) found in their research strong evidence that people with mental health problems and an older age have a longer time to return to work than people with a younger age, when they are absent from work. So it could be the case that the consequences of mental health problems are more severe for older people than for younger people.

Perceived discrimination can be explained by the earlier mentioned theories, but the literature of Garstka, Schmitt, Branscombe, and Hummert (2004) can also provide an explanation. Garstka et al. (2004) found in their research that for older adults, perceived discrimination has an influence on their psychological well-being. For younger adults, they could not find an influence of perceived discrimination on their psychological well-being. They think that perceived discrimination has less influence on younger people because they still have the expectation of upward social mobility and are avoiding future

discrimination. The younger people have to get old, but the older people cannot get young, so the discrimination will remain existing for the older people.

Based on the existing theories of the influence of age on discrimination, I will draw my second hypothesis. The existing literature on discrimination in general suggests that older people experience more consequences of discrimination and unemployment. Because they are more vulnerable than the younger people, I expect that old people are more likely to report a lower job appraisal than younger people. Therefore, I expect that age influences the relationship between experiencing a depression and job appraisal.

Hypothesis 2: *The relationship between experiencing a depression and job appraisal is stronger for older people compared to young people.*

2.2.2: Gender

Another factor which is expected to have an influence on the relationship between experiencing a depression and job appraisal is gender. Although more and more societies strive for gender equality, gender differences are still present. For instance, the association between employment status and mental health differed for men and women (Olesen, Butterworth, Leach, Kelaheer, & Pirkis, 2013). But does gender also has an influence on the relationship between experiencing a depression and job appraisal? There are different explanations in the literature about perceived discrimination differences for gender in general. First of all, Macinko, Mullachery, Proietti, and Lima-Costa (2012) did research on experienced discrimination. They have found that there are some individual and contextual characteristics, which are strongly associated with perceived

discrimination. One of the individual characteristics was that women are more likely to report cases of perceived discrimination than men. Second, Dambrun (2007) found evidence in his research that women are more exposed than men to discrimination and prejudices. Women also perceive more personal as well as group discrimination than men. He also found that women are more exposed to discrimination and prejudices than men. So it is probable that women who experience a depression because they perceive more employment-related discrimination than men who experience a depression have a lower job appraisal.

Existing literature shows that women are more likely to perceive discrimination than men do. So it is likely that women more often than men, have the feeling that they perceive less recognition and respect that they deserve at work. Based on these existing theories I will draw the third hypothesis:

Hypothesis 3: *The relationship between experiencing a depression and job appraisal is stronger for women compared to men.*

2.2.3: Economic status

Another group in society which is likely to perceive more discrimination is people with a low economic status. Anthony, Gary, and Thomas (2012) state that discrimination based on one's economic status is evident in many societies around the world. Macinko et al. (2012) found in their research about experienced discrimination that being poor is an individual character to be likely to perceive more discrimination. The findings of Anthony et al. (2012) suggest that there is a link between poverty and perceived discrimination, but

unfortunately testing the specific mechanisms underlying this effect was not included in their research. So there seems to be a link between poverty and perceived discrimination, but in this research the mechanism behind this link is not investigated. In my research, two measures for economic status will be used. Namely, people with a high financial strain and people with a low education. Both of the measures have different mechanisms to explain the differences in the relationship between experiencing a depression and job appraisal. The different mechanisms will be explained in the following sections.

Vijayalakshmi, Ramachandra, Reddemma, and Math (2014) argue that people with mental health problems perceive more discrimination than people without mental health problems and that poor people perceive more discrimination than richer people. People with mental health problems who have a high financial strain are doubly disadvantaged. People with a high financial strain have fewer means for access to reliable health services. This does not mean that people with a low financial strain cannot have mental health problems or overcome them faster. But it can mean that people with a low financial strain have more access to resources which can help to control their mental health problems. For instance, people with a low financial strain can pay for therapies or medication, which makes the mental health problem less visible and are therefore less likely to feel discriminated than people with a high financial strain who do not have this access to resources. This could lead to more employment-related discrimination and less job appraisal for people with a high financial strain, compared to the people with the low financial strain.

It could also be the case that there are differences in the relationship between experiencing a depression and job appraisal, because of the level of education. Khlát, Legleye, and Sermet (2014) suggested in their research that for men with the lowest education or primary education only, who were psychologically distressed could be less aware of their psychological condition and less likely to report common mental health problems than the higher educated. For people with a higher education, it is more likely that they will search for help have a network which helps them to get therapy. There is a positive correlation found between education and good health. High education improves a healthy lifestyle by improving the knowledge of a healthy behavior and the outcomes of a healthy behavior (Kenkel, 1991). Because of their health knowledge, they are more likely to search for help because they understand the importance of getting help. And their therapy is more useful because they understand more from the therapy and understand better how important therapy can be.

Based on the existing theories, I expect that the relationship between people who experience a depression and job appraisal is stronger for people with a higher financial strain because they have less access to means. I also expect that the relationship between people who experience a depression and job appraisal is stronger for people with a low education because it is harder for them to understand the therapies and to understand how important the therapy is.

Hypothesis 4a: *The relationship between experiencing a depression and job appraisal is stronger for people with a high financial strain compared to people with a low financial strain.*

Hypothesis 4b: *The relationship between experiencing a depression and job appraisal is stronger for people with a low education compared to people with a high education.*

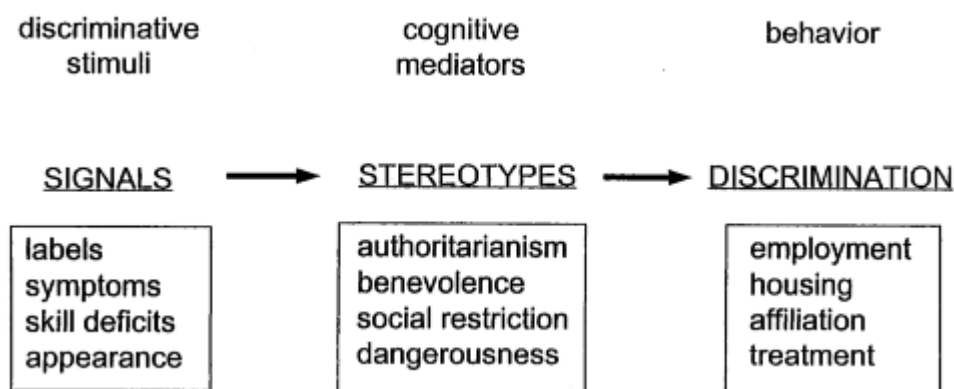
2.3: Contextual-level moderator

It could also be the case that contextual-level moderators have an influence on the relationship between experiencing a depression and job appraisal. So maybe the level of public stigma towards people with mental health problems in a country, determined how discriminated people who experience a depression feel themselves and has an influence on people's job appraisal. For instance, if a society has a more negative public stigma about people with mental health problems, the people who experience a depression perceive more discrimination because they already assume that people have negative views about them.

As stated in the introduction, public stigma has not one clear definition but can be interpreted in different ways. In this research public stigma is seen as a social phenomenon which is influenced by two things. It is influenced by (1) the prejudices and ideas a society has about a group (minority) in society, and (2) the way they treat that group based on their prejudices. According to Mak, Poon, Pun, and Cheung (2007), societies in general see public stigma as the prejudices, negative emotional responses, discrimination and biased social structures towards people with mental health problems. An important theory about the

mechanism behind stigmatization is the labeling theory, which later grew out as the sociological theory of deviance. In this theory, it is stated that many examples of people with mental health problems were displayed by the effects of the label “mentally ill”, so people saw deviant behavior as mentally ill. The label “mentally ill” would modify actions of others towards the people with the label “mentally ill”. This behavior towards people with mental health problems creates further deviant behavior (Hayward, amp, & Jenifer A. Bright, 1997).

Figure 1 The relationship between stigma signals, stereotypes, and behaviors



Source: (P. Corrigan, 2000).

P. Corrigan (2000) explains in his article the relationship between stigma signals, stereotypes, and behavior, which is presented in figure 1. The stigma signals consist of the labels, symptoms, skill deficits and appearance which can suggest that people have a mental health problem. These labels, symptoms, skill deficits and appearance can lead to stereotypes. Authoritarianism refers to the belief that people who have mental health problems are inferior to “normal people”, and therefore are threatened differently. Benevolence is the Christian kindness to minorities, leading to parental treatment towards children. With

social restriction, it is meant that a stigma can lead to persons who are stigmatized have an increasing distance from society because they are seen as dangerous, which is the last point. These forms of stereotypes can lead to discrimination. Discrimination can be expressed in different forms, but in this figure, this means that people are less likely to hire persons who have mental health problems, less likely to rent them apartments, and more likely to falsely accuse them of violent crimes.

Stigma can also be perceived by people with mental health problems themselves. As people with mental health problems internalize the stigma responses from the society, it is called self-stigma (Mak et al., 2007). The differences between public stigma and self-stigma are described by P. W. Corrigan and Watson (2002). With public stigma, people have a negative belief about a group, their prejudices are mostly based on anger and fear. Their responses to prejudices are for instance to prevent work and housing opportunities for people with mental health problems. With self-stigma, people have a negative belief about themselves and their prejudices are mostly based on a low self-esteem and low self-efficacy. Their response to prejudices is for instance, failing to retain work and housing opportunities. Self-stigma of people with mental health problems can lead to negative emotional responses and behaviors (Mak et al., 2007).

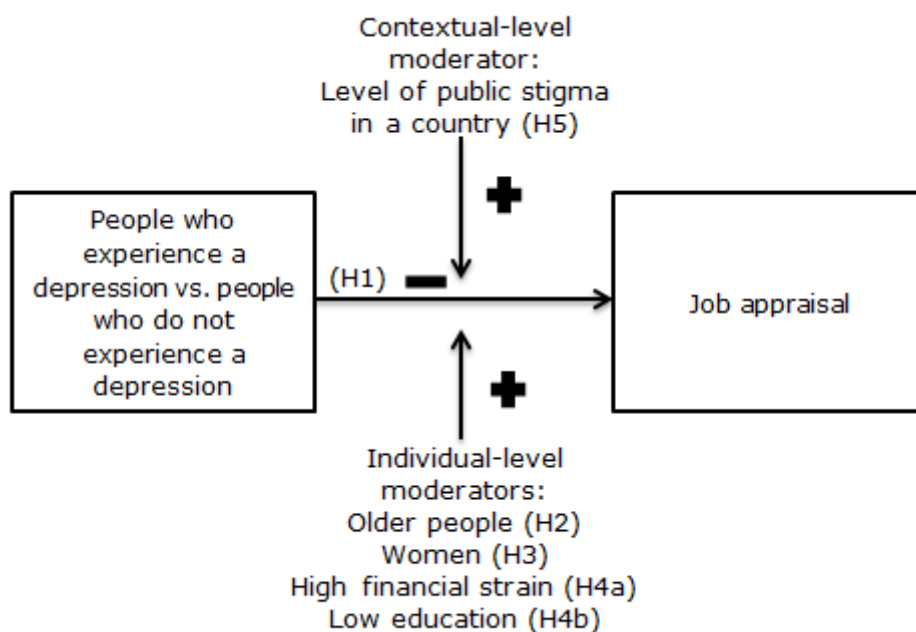
From the existing literature, it can be assumed that people with mental health problems who live in a country with a high level of public stigma, perceive more discrimination than in the countries with a low level of public stigma. A high level of public stigma can also lead to higher levels of self-stigma, which can lead

to negative emotional responses and behavior. Because of the negative outcomes of stigma for people with mental health problems it could be the case that in countries with a high level of public stigma, the people who experience a depression perceive more discrimination than in countries with low levels of public stigma. Based on the presented literature I expect that the level of public stigma also has an influence on the relationship between experiencing a depression and job appraisal.

Hypothesis 5: *The relationship between experiencing a depression and job appraisal is stronger for people who live in a country with a high level of public stigma compared to people who live in a country with a low level of public stigma.*

In figure 2 the conceptual model of all the hypotheses is presented.

Figure 2 *Conceptual model of the hypotheses.*



3 Data and methods

The data for this research is retrieved from the Eurobarometer 73.2 (2010). In this chapter will be explained which variables from the Eurobarometer are used, how the variables are threatened, and how they are measured in this research. After that, the multi-level analyses will be explained.

3.1: Research design

This dataset of the Eurobarometer 73.2 includes 27304 interviews among the 27 member states of the European Union which were collected in February-March 2010. In my analyses, only the people who do have a job are included in the sample. The main themes addressed in the Eurobarometer 73.2 are:

- The state of mental well-being
- Level of comfort at work
- Care and treatment
- Perceptions of people with mental illness

The respondents in this Eurobarometer were obtained by the probability sample: proportionate stratified multistage sample. In the first stage, primary sampling units were selected from each of the administrative regional units in every country. This selection was systematic with probability proportional to population size, from sampling frames stratified by the degree of urbanization. For the second stage were a cluster of starting addresses selected from each sampled primary sampling unit, at random. Further addresses were chosen systematically using standard random route procedures. In each household, a respondent was drawn, at random, following the closest birthday rule. No more than one interview was conducted in each household. The population consists of

the nationalities of the European Union Member States, resident in each of the Member States and aged between 15 and 97. The data were collected by face-to-face interviews in people's home in the appropriate national language and in countries where the technique was available, CAPI was used. The following countries are covered in the dataset: France, Belgium, the Netherlands, Germany West, Italy, Luxembourg, Denmark, Ireland, Great-Britain, Northern Ireland, Greece, Spain, Portugal, Germany East, Finland, Sweden, Austria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia, Bulgaria, Romania, and Iceland (EU open data portal, 2016).

3.2: Measures

In this section will be explained which variables are used in this research and how they will be measured during the analyses. First I will explain my dependent and independent variable. After that, I will describe my individual-level moderators, followed by the contextual-level moderators. Next, the control variables will be explained. And the last paragraph contains the descriptives of all the variables.

3.2.1: Dependent variable

The dependent variable of this research is "job appraisal". Job appraisal consists of three questions in the Eurobarometer 73.2, namely: "For each of the following statements regarding your job, please tell me whether you tend to agree or tend to disagree with it (varying from 1-4; totally agree to totally disagree)"

- Your job security is under threat

- Your current job adequately reflects your education and training
- At work, you receive the respect and recognition that your efforts and achievements deserve

The question if their job security is under threat is more likely to be correlated to other factors that are not correlated with discrimination. For instance, in Greece I think almost everyone who works there will have the feeling that their job security is under threat because of the economic crisis. Furthermore, it can also be the case that people feel that their job security is under threat because they are not doing their job well, but for other reasons than experiencing a depression. As you can see there are different reasons possible why people could feel that their job security is under threat. So I do not see this question as a good variable to measure the perceived discrimination at work due to experiencing a depression.

When creating a scale with the other two items (reflecting education and receive respect and recognition), it turns out that they have a Cronbach's alpha of .572. This is not very high, so I decided to only use the question if the respondents receive the respect and recognition that they deserve. I think that this question measures best the perceived employment-related discrimination. Because if people have the feeling that they do not receive the respect and recognition that they deserve, people have the feeling that they are threatened worse than they deserve than others. And that feeling of disadvantages based on personal characteristics as for instance mental health problems is a feeling of discrimination.

The question for job appraisal that I will use is in the dataset scaled from high to low. So the higher the score, the lower their job appraisal. In this thesis

this question is rescaled, so from now on accounts; the higher the score, the higher the job appraisal of the respondents.

3.2.2: Independent variable

The independent variable of this research is 'people who experience a depression¹', because mental health will be measured by the MHI-5 scale for depressive symptoms. I use the MHI-5 scale for measuring mental health for several reasons. First of all, when I look into all the measures of mental health in my dataset, I think that this scale is the most reliable scale for measuring mental health which is available in my dataset. There is also a question which some studies use from the Eurobarometer 73.2, which asks if people have used antidepressants in the past 12 months. In general, it is likely that people who use antidepressants have mental health problems or have had them in the past, but it could also be the case that people use antidepressants for other reasons. It does not necessarily mean that if you use antidepressants you really have a mental health problem.

Second, which convinced me the most is that other studies on the subject of mental health which also use the Eurobarometer 73.2 also use this MHI-5 scale to measure mental health. The MHI-5 scale is also recommended in other studies. For instance Leigh, Byles, Chojenta, and Pachana (2016) state in their research that the MHI-5 has been validated against other measures of mental health, and has been found that the MHI-5 has a good validity for detecting significant mental health disorders. Other studies state that the MHI-5 is a better measure for mental health than the K10 and the GHQ-12 (Trainor, Mallett, & Rushe, 2013) and also better than the MDI measure for mental health (Thorsen,

¹ vs. people who do not experience a depression.

Rugulies, Hjarsbech, & Bjorner, 2013). There is evidence found that the MHI-5 scale has a good internal reliability, as well as external validity and comparability across countries (Buffel, van de Straat, & Bracke, 2015).

MHI-5 stands for Mental Health Inventory and consists of 5 questions. The MHI-5 scale is a short version of the SF-36 health survey. The questions of the MHI-5, which test if people experience a depression are: "How much of the time during the last 4 weeks, have you..."; felt particularly tense?, felt so down in the dumps that nothing could cheer you up?, felt calm and peaceful?, felt downhearted and depressed?, felt happy?. The response categories were: "Did you felt this..."; all of the time, most of the time, sometimes, rarely, never. The questions "have you felt calm and peaceful?" and "have you felt happy?" were rescaled, so it accounts also for them; the higher the score, the better their mental health.

The MHI-5 has no validated standardized cut-off point. So there is not a standard score for people who score higher than that certain score they are labeled as experiencing a depression (Evans-Lacko et al., 2013). There are some studies that calculated cut-off points. For instance, Trainor et al. (2013) created the MHI-5 scale with a cut-off point of 60. They have based this cut-off point on what they have found in other studies, but it is not clear which studies. According to Thorsen et al. (2013), 52 is the most used cut-off point. But 54, 74, 60, and 68 are also many times used as a cut-off point if the scale is constructed for scores from 0-100. I will use 52 as a cut-off point because this is the strictest in differentiating between the presence of a depression or not. Since the MHI-5 scale is called the MHI-5 scale for depressive symptoms, people who have a

score of 52 or lower will be indicated as people who are experiencing a depression in this research.

With creating the MHI-5 scale in my syntax, SPSS automatically only includes the people who answered all the 5 questions of the MHI-5 scale. But I think that if people answer only 3 or 4 questions which indicate that they are at risks of experiencing a depression, they can also be included in my sample. So respondents who answered at least 3 out of 5 questions are included in the sample.

If I look at the number of people who have a score below 52 on the MHI-5 scale I can see this:

Table 1 Number and percentage of people experiencing a depression (N=12108)

	Number of people	Percentage of people
People not experiencing a depression	10273	84,8%
People experiencing a depression	1835	15,2%
Total	12108	100,0%

Note: Number and percentage if people are experiencing a depression or not, based on the MHI-5 scale in this research. People experiencing a depression have a score of 52 or lower on the MHI-5 scale. Only people who do have a job are included. Source: Eurobarometer 73.2 (2010).

As we can see in table 1, there is 15,2% of the respondents who answered this question who belongs to the category “people experiencing a depression”. Sakellari et al. (2014) state in their article that in Europe, mental health

problems are experienced by approximately one in ten citizens. So the 15,2% people experiencing depression in this sample can be a reliable percentage of people experiencing a depression since this is close to the approximately 10%. While only people who do have a job are included in the sample.

3.2.3: Individual-level moderators

There are three moderators on the individual level, namely: age, gender, and economic status. In this paragraph will be explained which variables from the dataset will be used and how they are threatened before they will be used in the analyses.

For age, the question “How old are you?” will be used. In this sample, the youngest person is 15 and the oldest person is 97. For my analyses, I will only include people who are part of the workforce, which means people from 15-65. So to make my analyses more reliable I will only include the people aged 15-65. Because I am interested in old people I made a cut-off point for age at the age of 55. I have chosen to use 55 as the cut-off point because research shows that workers who are aged between 55 and 64 are more likely to get unemployed (Lippmann, 2008). So I expect that they suffer most from age-related problems.

To determine which *gender* a respondent has the question will be used which ask the respondents to write down if their gender is “male” or “female”. To make it easier to compare these two groups versus each other in my further analyses, I have recoded the females as the dummy category and males as the reference category.

The *economic status* of the respondents is divided into financial strain and education. To measure the financial strain of the respondents the question “did you have had difficulties to pay the bill during the last year?” is used. The answer

options for this question are: most of the time, from time to time and almost never/never. I recoded the first two answer options into the dummy category as high financial strain and the last answer into the reference category as low financial strain. The level of education of the respondents will be measured by the question: "How old were you when you stopped full-time education?". Assuming that the older people finish their education, the higher they are educated. Age is divided into 9 categories, namely: 14 years or no education, 15 years, 16 years, 17 years, 18 years, 19 years, 20 years, 21 years, 22 years and older. For this variable it accounts, the higher the score, the higher the education.

Both the variables for economic status are not perfect. They are both questions which can measure the financial capability and level of education of respondents but does not ask it directly. But I think these variables are good enough to see if respondents have financial strains and are low educated.

3.2.4: Macro-level moderator

The level of public stigma will be measured by the question: "What is your feeling towards people with mental health problems?". The answers to this question can be:

- I think it is difficult to talk to someone with mental health problems
- I have no problem with talking to someone with mental health problems

If they think it is difficult to talk to them, they do not see them as equal but as more different than others. To make a country level variable from stigma, the mean stigma per country was calculated into a new variable.

There are not a lot of studies which use the Eurobarometer 73.2 and also look at the public stigma in a country, but I have found one research who uses the Eurobarometer 73.2 and also takes public stigma into account. Evans-Lacko et al. (2013) look in their research at associations with sociodemographic, cultural and economic factors for antidepressant use in Europe. To look at what the attitudes of people towards mental health problems are, they use also this earlier mentioned question.

3.2.5: Control variables

As control variable, I will use physical health. This because it is likely to assume that people with physical health problems already have to deal with discrimination and are more likely to have a lower job appraisal because of their physical problems. For this variable I will use question: "during the past 4 weeks how often have you had any of the following problems in your day-to-day life whether at work, at home or elsewhere? – you have accomplished less than you would like as a result of a physical health problem". The answer options for this question are: all the time, most of the time, sometimes, rarely, and never. I will use this variable as a categorical variable, where the higher score means a better physical health.

I will also control for the type of community of the respondents. Because I expect that in large towns there is a different view of people who are experiencing a depression than in small towns or villages. I think if people live in a small town or village there is a more negative view towards mental health problems. So if people live in small towns or villages can influence the relationship between experiencing a depression and job appraisal. For the type of

community, the answer options are: “rural area or village”, “small/middle town” or “large town”. For this variable, I made rural area or village and small/middle town in the 1 category and large town as the reference category.

The last control variable is stigma at the individual level. As the contextual-level moderator I have used the level of public stigma in a country. But I will control for stigma at the individual level. Because if people stigmatize this can influence the relationship between experience a depression and job appraisal.

3.2.6: Descriptives

On the following page, the descriptives of the used variables are presented in table 2.

Table 2 *Descriptives of the used variables*

Variable	N (number of respondents)	Minimum	Maximum	Mean	Standard deviation
Job appraisal	11838	0.00	3.00	2.09	.79
Depressed*	12108	0.00	1.00	.15	.35
Old*	12424	0.00	1.00	.12	.33
Women*	12424	0.00	1.00	.48	.49
Financial strain*	12240	0.00	1.00	.36	.48
Year finished education	12240	1.00	9.00	6.00	2.46
Stigma	12137	0.06	0.57	.26	.09
Physical health problem	12071	1.00	5.00	4.06	1.05
Partner status*	12317	0.00	1.00	.27	.44
Large town*	12402	0.00	1.00	.30	.46

*Depressed vs. not depressed * old vs. young people *women vs. men *high financial strain vs. low financial strain *living in a large town vs. living in rural or small town. Source: Eurobarometer 73.2 (2010).

3.3: Analyses

For this research, I will perform multilevel analyses in IBM SPSS statistics 23. For this research, it is important to perform multilevel analyses because I am interested in factors on the micro level as well as factors on the macro level. I will do this in three steps. The first step is to estimate the null or empty model, so I can calculate the intra-class correlation. This is my starting point. Then for step two, I will estimate an individual level model. In this model will look if there

are differences in the relationship between experiencing a depression and job appraisal for old people, women, people with a high financial strain, and people with a low education. Every moderator is calculated in a different model. In my sample people who experience a depression are compared with people who do not experience a depression. By doing this I can see the differences in job appraisal caused by individual-level moderators and if these differences in perceived discrimination are due to their depressive symptoms. For the last step, I will add macro-level covariate to the analyses. So I will add the variable level of public stigma of a country and sort all cases by countries. After this, I can estimate the effect of the level of public stigma per country on the relationship between experiencing a depression and job appraisal. In this way, I can see what the differences are on the relationship between experiencing a depression and job appraisal per country.

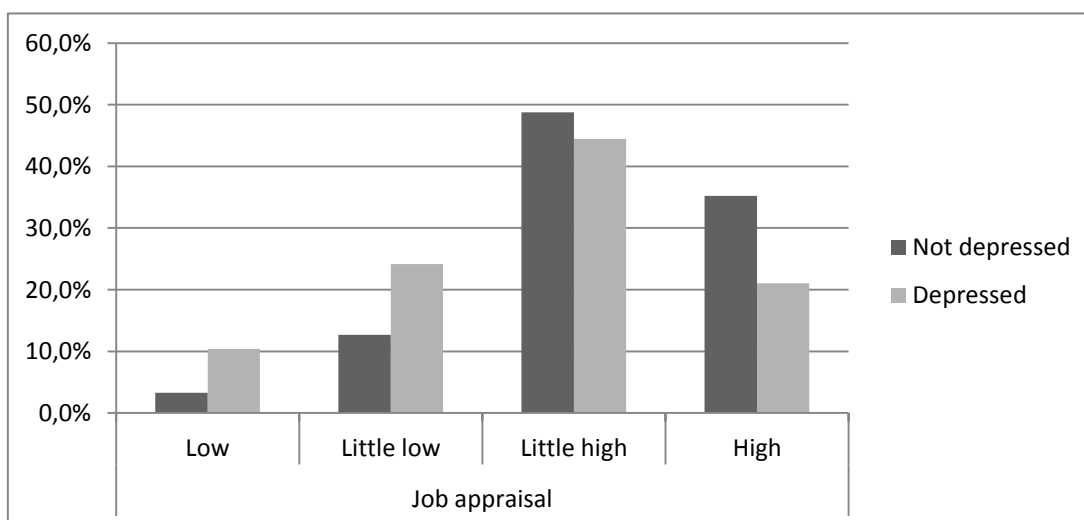
4 Findings

In this chapter, the results of my analyses will be presented. I have performed multilevel analyses in IBM SPSS Statistics 23. On the first level are the individual-level moderators (age, gender, and economic status) and on the second level is the contextual-level moderator (level of public stigma). In this chapter, I will describe the multilevel analysis and look if I can find evidence for the hypotheses.

4.1: Individual background

As we can see in figure 3, there are differences between the answer to the question about the job appraisal of people who experience a depression and people who do not experience a depression. More people who experience a depression than people who do not experience a depression reported a low or little low job appraisal. And more people who do not experience a depression than who do experience a depression answered with a high or little high job appraisal.

Figure 3 Job appraisal for people experiencing a depression or not (N = 11818)



Source: Eurobarometer 73.2 (2010).

Based on this figure you would say that people who experience a depression have a lower job appraisal than people who do not experience a depression. But I need to do analyses and control for other variables before I can conclude that.

An independent-samples t-test was conducted. With the t-test I compare the people who are experiencing a depression with people who are not experiencing a depression, to see if there are differences between those two groups. After conducting the t-test I can see that $t = 17.536$ (with $\text{Sig.} = 0.000$). The mean job appraisal of people who are experiencing a depression and people who are not experiencing a depression are different from each other. So the differences between people who are experiencing a depression and people who are not experiencing a depression are significant. The table of the t-test is presented in appendix 1.1.

4.2: Contextual background

In this research, individual-level moderators, as well as the contextual-level moderator, are important to answer the research questions. In this paragraph, I will introduce some figures and analyses to draw a contextual background of the sample. First of all, I will look at the differences in people experiencing a depression and the level of public stigma in the different countries of Europe.

In table 3, the percentages of people experiencing a depression and people who stigmatize are presented per country. The first column shows the European counties. The second column shows the percentage of people in a country who had a score of 52 or lower on the MHI-5 scale. The third column

shows the percentage of people in a country who reported to think it is difficult to talk to someone with significant mental health problems.

Table 3 Percentage depression and stigma per country (N = 11152)

Country	Percentage depression	Percentage public stigma
Denmark	6,3%	18,8%
Finland	6,4%	24,3%
Sweden	6,5%	13,6%
The Netherlands	7,7%	16,2%
Germany	10,5%	18,8%
Ireland	10,5%	21,4%
Spain	11,3%	14,7%
Great Britain	11,3%	20,9%
Slovakia	11,4%	36,0%
Slovenia	13,7%	14,7%
Luxembourg	13,8%	17,5%
France	14,7%	26,7%
Czech republic	14,8%	20,6%
Bulgaria	16,1%	33,8%
Belgium	16,6%	22,5%
Austria	16,7%	25,5%
Estonia	17,6%	36,7%
Malta	17,6%	26,4%
Poland	18,1%	40,1%
Lithuania	18,1%	56,9%
Cyprus	18,3%	5,9%
Hungary	18,3%	29,9%
Portugal	18,3%	30,4%
Latvia	22,9%	38,9%
Romania	23,2%	35,6%
Italy	26,6%	31,0%
Greece	30,7%	30,8%

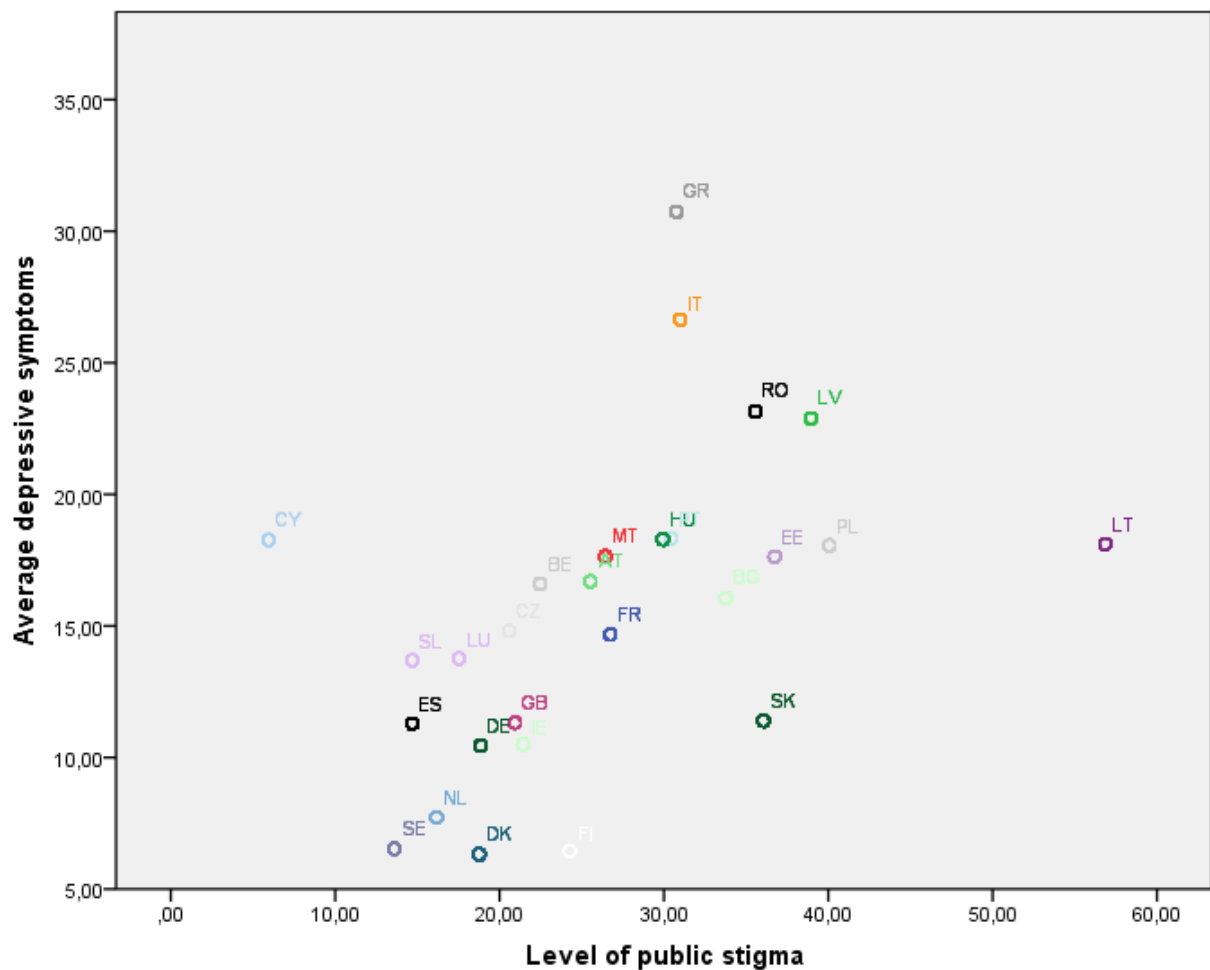
Note: Percentage of people who are experiencing a depression and people who stigmatize of the sample of this research. Source: Eurobarometer 73.2.

In table 3 it is visible that Denmark, Finland, Sweden and the Netherlands have the lowest percentages of people experiencing a depression in their country. Greece has the highest percentage of people experiencing a depression, even more than 30%. Latvia, Romania, and Italy are also among the countries with the highest percentages of people who are experiencing a depression in their country.

In the column of the percentage of level of public stigma, it is visible that Cyprus is the only country that has a percentage lower than 10%. Other countries who are among the lowest percentages of public stigma are Slovenia, Sweden, and Spain. The country who has the highest percentage of public stigma is Lithuania. The percentage of public stigma of Lithuania is 56,9%. So more than half then Lithuania thinks it is difficult to talk to someone who has significant mental health problems. Poland, Latvia, Estonia, and Slovakia do also have high rates of public stigma, namely 36% or higher.

In figure 4 is the scatterplot of the percentage of depressive symptoms and the percentage of public stigma per country presented. Figure 4 makes it more visible how high the percentages of people experiencing a depression and level of public stigma in the European countries is. In figure 4 the relationship between experiencing a depression and level of public stigma per country is visible. Cyprus is an outlier because it has a very low level of public stigma, compared to the other countries. Greece is the country with the highest percentage of people who are experiencing a depression. Lithuania has the highest percentage of people who reported to think it is difficult to talk to someone with mental health problems. There is a significant positive correlation found between experiencing a depression and level of public stigma $(.53)^2$.

² See appendix 1.2 for the table presenting Pearson's r .

Figure 4 Depression and level of public stigma among European countries

Note: country abbreviations: AT: Austria; BE: Belgium; BG: Bulgaria; CY: Cyprus; CZ: Czech Republic; DE: Germany; DK: Denmark; GR: Greece; EE: Estonia; ES: Spain; FI: Finland; FR: France; GB: United-Kingdom; HU: Hungary; IE: Ireland; IT: Italy; LT: Lithuania; LU: Luxembourg; LV: Latvia; MT: Malta; NL: The Netherlands; PL: Poland; PT: Portugal; RO: Romania; SE: Sweden; SL: Slovenia; SK: Slovak Republic. Source: Eurobarometer 73.2 (2010).

4.3: Multilevel analyses

Before starting the actual multilevel analyses, I will calculate the intra-class correlation. With the intra-class correlation, I can see how much of the variation between people can be explained by country differences. The null

model³ showed that the variation at country level was .031, and the variation at the individual level was .610. I will calculate the intra-class correlation by: country variation / (individual variation + country variation). Based on this null model this means that the intra-class correlation = $.031 / (.610 + .031) = 0.049$. If I multiply this with 100 I get the percentage of intra-class correlation, which is 4,9%. So 4,9% of the differences in job appraisal can be explained by country differences.

In table 4, the first three models of the multilevel analyses are presented. With model 1a, 1b and 2 I have tested the first hypothesis. In model 1a, the relationship between experiencing a depression and job appraisal was tested, controlled for large town, physical health, and stigma at the individual level. Depressed showed a significant effect of -.31 on job appraisal. The proportion of the explained variance at the country level is $100 * (.032 - .027) / .032 = 14,09\%$. The proportion of the explained variance at the individual level is $100 * (.610 - .591) / .610 = 3,22\%$. Both of the proportions are compared to the null model.

In model 1b, all the individual-level variables, age, gender, financial strain, and education were also included. Also when these individual-level variables are included, depressed had a significant negative effect (-.26) on job appraisal. The proportion of the explained variance at the country level is $100 * (.032 - .023) / .032 = 26,70\%$, which is about 12% higher than model 1a. The proportion of the explained variance at the individual level is $100 * (.610 - .579) / .610 = 5,11\%$. Both of the proportions are compared to the null model.

³ The null model is presented in appendix 1.3.

In model two the control variables and the individual-level variables were added, as well as the contextual level variable: stigma on the country level. Model 2 shows also a significant negative effect (-.26). The proportion of the explained variance at the country level is $100 * (.032 - .023) / .031640 = 28,01\%$. The proportion of the explained variance at the individual level is $100 * (.610 - .579) / .610 = 5,11\%$, which is exactly the same as model 1b. Both of the proportions are compared to the null model. In model 2, I have found evidence for a negative effect of depressed on job appraisal, which is in line with the first hypothesis.

Table 4 Results of the multilevel analyses (N = 10606)

	Model 1a		Model 1b		Model 2	
	Estimate	Std. err.	Estimate	Std. err.	Estimate	Std. err.
Depressed	-.31	.02	-.26	.02	-.26	.02
Large town	-.01	.02	-.02	.02	-.02	.02
Physical health	.06	.01	.05	.01	.05	.01
Stigma	-.12	.02	-.10	.02	-.10	.02
Old			.11	.02	.11	.02
Women			.03	.01	.03	.01
Education			.01	.00	.01	.00
Financial strain			-.21	.02	-.21	.02
Stigma country level					-.00	.00
Intercept	1.96	.05	1.95	.05	2.04	.09
Variance country level		.03		.02		.02
Variance individual level		.59		.58		.58
R ² country*		.141		.267		.280
R ² individual*		.032		.051		.051
Variance constant null model		.032		.032		.032
Variance residual null model		.610		.610		.610

Note: The dependent variable is job appraisal. Bold coefficients are significant for P<0.001. *Compared to the null model.
Source: Eurobarometer 73.2.

In table 5, models 3, 4, 5, 6, and 7 are presented. These models show us model 2 with for each model a different interaction effect added. In model 3 the interaction effect of age was added. In order to add this interaction effect, the variable $\text{depressed} \times \text{old}$ was computed. With model 3 I have tested the second hypothesis, in which I expected that the relationship between experiencing a depression and job appraisal was stronger for older people. The proportion of the explained variance at the country level in this model is $100 \times (.032 - .023) / .032 = 27,98\%$. The proportion of the explained variance at the individual level is $100 \times (.610 - .579) / .610 = 5,11\%$. Both of the proportions are compared to the null model. The analyses showed no significant effect for older people as a moderator on the relationship between mental health and job appraisal.

The fourth model the new variable of the interaction effect of gender was added; $\text{depressed} \times \text{women}$. With this model, the third hypothesis was tested. With the third hypothesis, it was expected that the relationship between experiencing a depression and job appraisal was stronger for women. The proportion of the explained variance at the country level is $100 \times (.032 - .023) / .032 = 28,07\%$. The proportion of the explained variance at the individual level is $100 \times (.610 - .579) / .610 = 5,11\%$. Both of the proportions are compared to the null model. The interaction effect of women showed no significant effect.

In model 5, hypothesis 4a was tested by adding the interaction effect of education to the second model. The new variable who was created to add this interaction effect is $\text{depressed} \times \text{education}$. The proportion of the explained variance at the country level is $100 \times (.032 - .023) / .032 = 28,06\%$. The proportion of the explained variance at the individual level is $100 \times (.610 - .579) / .610 = 5,10\%$.

Both of the proportions are compared to the null model. The fifth model showed no significant effect of low education on the relationship between experiencing a depression and job appraisal.

In the sixth model, the new variable of the interaction effect of high financial strain was added; $\text{depressed} * \text{financialstrain}$. Model 6 tests hypothesis 4b, in which it was expected that a high financial strain has an influence on the relationship between experiencing a depression and job appraisal. The proportion of the explained variance at the country level is $100 * (.032 - .023) / .032 = 28,11\%$. The proportion of the explained variance at the individual level is $100 * (.610 - .579) / .610 = 5,12\%$. Both of the proportions are compared to the null model. The interaction effect of high financial strain showed no significant effect to find evidence to the fifth hypothesis.

In the last model, model 7, the contextual interaction effect was added with the new variable $\text{depressed} * \text{stigma.perc}$. In this model, the fifth hypothesis was tested. With the fifth hypothesis, it was expected that the level of public stigma in a country has an influence on the relationship between experiencing a depression and job appraisal. The proportion of the explained variance at the country level is $100 * (.032 - .024) / .032 = 25,55\%$. The proportion of the explained variance at the individual level is $100 * (.610 - .575) / .610 = 5,81\%$. Both of the proportions are compared to the null model. With adding the stigma interaction effect to the second model, there was no evidence found for the level of public stigma to have an influence on the relationship between experiencing a depression and job appraisal.

Table 5 results of the multilevel analyses (N = 10606)

	Model 3		Model 4		Model 5		Model 6		Model 7	
	Estimate	Std. err.	Estimate	Std. err.	Estimate	Std. err.	Estimate	Std. err.	Estimate	Std. err.
Depressed	-.27	.02	-.25	.03	-.25	.05	-.30	.03	-.48	.12
Large town	-.02	.02	-.02	.02	-.02	.02	-.02	.02	-.02	.02
Physical health	.05	.01	.05	.01	.05	.01	.05	.01	.05	.01
Stigma	-.10	.02	-.10	.02	-.10	.02	-.10	.02	-.10	.02
Old	.10	.02	.11	.02	.11	.02	.11	.02	.10	.02
Women	.03	.01	.03	.02	.03	.01	.03	.01	.03	.01
Education	.01	.00	.01	.00	.01	.00	.01	.00	.01	.00
Financial strain	-.21	.02	-.21	.02	-.21	.02	-.22	.02	-.22	.02
Stigma country lvl	-.00	.00	-.00	.00	-.00	.00	-.00	.00	-.00	.00
Depressed x Old	.04	.07								
Depressed x Women			-.03	.04						
Depressed x Education					-.00	.01				
Depressed x Financial strain							.06	.04		
Depressed x public stigma									.01	.00
Intercept	2.06	.09	2.04	.09	2.04	.09	2.05	.09	2.07	.09
Variance country level	.02		.02		.02		.02		.02	
Variance individual level	.58		.58		.58		.58		.57	
R ² country*	.280		.281		.281		.281		.256	
R ² individual*	.051		.051		.051		.051		.058	
Variance constant null model	.032		.032		.032		.032		.032	
Variance residual null model	.610		.610		.610		.610		.610	

Note: The dependent variable is job appraisal. Bold coefficients are significant for P<0.001. *Compared to the null model.

Source: Eurobarometer 73.2.

5 Conclusion and discussion

In this chapter, conclusions will be drawn based on the results of the analyses. It will also be discussed which limitations this research has. In the end, I will give some recommendations for future research.

5.1: Conclusion

With this research, I have tried to find answers to the questions if people who experience a depression have a lower job appraisal than people who do not experience a depression. And if the differences in the relationship between experiencing a depression and job appraisal are based on 1) gender, age, and economic status, as well as 2) countries with different levels of public stigma.

My first assumption was that people who experience a depression have a lower job appraisal than people who do not experience a depression. Even when controlling for all the variables there is a negative effect found of experiencing a depression on job appraisal. So I can conclude that people who are experiencing a depression have a lower job appraisal than people who are not experiencing a depression.

In this research are the moderators investigated at the individual level, which could explain why the relationship between experiencing a depression and job appraisal is different for some people. I have investigated three individual-level moderators, which were according to the existing literature likely to have an influence on the relationship between experiencing a depression and job appraisal. The three individual-level moderators are gender, age, and economic status. Based on the existing literature I expected that the relationship between experiencing a depression and job appraisal is stronger for women, older people,

people with a high financial strain, and people with a low education. But in my sample, these moderators do not have a significant effect on the relationship between experiencing a depression and job appraisal.

The last moderator I have investigated was the contextual-level moderator. I expected that the presence of the relationship between people who experiencing a depression and job appraisal is stronger for people who live in a country with a high level of public stigma. This because the literature shows that the level of public stigma on a group in society can determine how people threat that stigmatized group, which can influence if people perceive discrimination or not. The level of public stigma in a country did not show a significant effect.

From the existing literature, it was expected that being old, women, having a high financial strain, having a low education, and live in a country with a high level of public stigma influences the relationship between experiencing a depression and job appraisal. But it turns out that these moderators do not have an influence on the relationship between experiencing a depression and job appraisal. So, there are no factors found who have an influence on the relationship between experiencing a depression and job appraisal. So I cannot conclude what influences the relationship between experiencing a depression and job appraisal.

However, I can conclude that it does the job appraisal for people with mental health problems is not necessarily lower for old people, women, and people with a low economic status. The people who are more likely to perceive discrimination, are not more likely to have a lower job appraisal. And in countries with a high level of public stigma people who are experiencing a depression do not have a lower job appraisal than people who are experiencing and living in a

country with a low level of public stigma. In my opinion, it is a good thing that even in the high level of public stigma countries people do not have a lower job appraisal than in low level of public stigma countries.

None of the expected moderators had an influence on the relationship between experiencing a depression and job appraisal. This could indicate that it is not possible to generate over a group of people which factors influence their relationship between experiencing a depression and job appraisal. It could also indicate that job appraisal is not a good measure for perceived employment-related discrimination. Because the expected moderators are based on the employment-related discrimination literature and they do not seem to have an effect.

5.2: Discussion

This research has few points which need to be discussed. There are some concepts which are hard to measure and there are some limitations to the dataset. In this paragraph, the limitations of this research will be discussed. In the end, I will also give some recommendations for future research.

First of all, I was interested in the perceived employment-related discrimination. But I could not find a dataset which includes employment-related discrimination and mental health. So I have chosen to measure the job appraisal of the respondents in order to investigate if they perceive employment-related discrimination. This was the best way to measure employment-related discrimination that I could find in existing datasets, which included mental health problems.

I use the question if people have the feeling that they receive the respect and recognition for their work that they deserve. But if they receive recognition could also be influenced by other factors than discrimination. For instance, if people are very self-confident and have the feeling that what they are doing is very good, but the people around them think differently about that. In that case, they can have the feeling that they are less appraised for their job than they deserve. But I do believe that the feeling of being appraised for your job can determine if you have feelings of discrimination. Because if people have the feeling that they do not receive the respect and recognition that they deserve, people can have the feeling that they are threatened worse than they deserve or different than other people. To make this measure more reliable, I have compared people who experience a depression to people who do not experience a depression. In this way, I could see if people who are experiencing a depression feel more often that they do not receive the respect and recognition at work than people who do not experience a depression, which was the case in this research.

Another concept which has limitations is mental health problems, or how it is called in this research; people who are experiencing a depression. As stated in the data and methods chapter, is the MHI-5 a validated scale to measure significant mental health disorders. Although it is a validated scale, I think there is still a limitation to the scale for using it in my research. The scale consists of questions which ask the respondents how they have felt in the past four weeks (tired, happy, calm etc.). To me, it is a limitation that they only ask how you have felt the past four weeks. It is a good thing that you know for sure if they have a score of experiencing a depression this was the case in the past four weeks. Because of that, it is more likely that they are suffering from a depression

while answering the questionnaire. But for me, this is also a limitation because when you are diagnosed with a depression, you have episodes of depressions. My interest in this research is if people have the feeling that they are discriminated because of their mental health problems. I think that if people have a depression they are interesting to include in my research, even if they are not in a depressive episode at the moment of answering the questionnaire. So for my research, it would have been better if the question was how the respondents have felt in the past 12 months.

The level of public stigma was also a concept which was not easy to measure. Stigma is a complex concept since this is about feelings and attitudes, sometimes even not on purpose. Because this is a complex concept, it is hard to find out if people stigmatize by only a questionnaire. I think you can better get to know if people do stigmatize if you do qualitative research. But because my research is about Europe this was not an option. By asking people for their opinion about people with mental health problems, I had to deal with the social desirability bias. Social desirability is “the tendency for people’s responses to conform to cultural mores, rather than their true belief” (Michaels & Corrigan, 2013). So if people have to answer the question if they think it is difficult to talk to someone with mental health problems it could be the case that they answer that they do not think it is difficult, while they actually think that it is difficult. I think that there is always a risk of this bias if you ask people that kind of questions. I think that you cannot really do a lot about but it is good to be aware of it.

Another limitation of the variable “level of public stigma” is that in the questionnaire the respondents are asked if they think it is difficult to talk to

someone with a significant mental health problem. But I think that people associate “significant mental health problems” with people who suffer a lot from mental health problems. For instance, people who have schizophrenia or the people who come on the news because they did something that is not normal in society. While there could also be people around them with a depression, a burn-out, or autism which can be less visible, but they also have significant mental health problems. So maybe if they let “significant” out of the question, the results would be that people are less stigmatizing than with “significant” in the question.

Economic status was measured by the financial strain and education of the respondents. But both of these variables had limitations. The only variable in the dataset which could measure if people have financial strain was the question if they had difficulties with paying their bills. I think in general it is the case that if people have difficulties with paying their bills that they experience financial strain. But I think that difficulties with paying the bills is a very broad concept. Because for poor people it can have a different interpretation than for rich people when you think it is difficult to pay your bills. And maybe some people interpret this question as if how difficult it is literally to pay your bills. For instance older people who have difficulties with paying their bills online. But with a few outliers who interpreted the question differently, I think that most people who answered “yes” to this question experience a financial strain.

The other factor of economic status, education, needs also to be discussed. Because in this questionnaire they did not just ask what the respondents highest achieved education is. They asked the respondents at what age they have finished their education. I think that this is a good question

because education is in every European country different organized. So this question is better for comparing countries to each other. But with this question we have just to assume that the older people are when finishing their education, the higher educated they are. Which I think is not always the case. Some people who are very smart will finish their education in the minimal time which is needed. But there are also people who have to do some years over because they did not make it to the next year. They study longer but this does not mean that they have a higher education. But also for this variable accounts, I think that it is for most of the people the case that the older they finished their education the higher their education is.

For me, it was also a limitation that not all the variables that I wanted to include in the research were available in the dataset. There were other factors that I wanted to test in my hypotheses and there were some variables which I wanted as control variables but they were not available in the dataset or not in the way I wanted it. For instance, I would add as an individual level factor religion. Because I thought that in some religions it is not accepted if you are different than others. So maybe in some religions or in countries with a certain main religion do people feel more discriminated and thus also have a lower job appraisal. But unfortunately, I could not test that.

And as the contextual factor, I would like to add the way mental health care is organized in a country. I did not know yet how I could measure that exactly, but I could also not find a dataset which included this with my other variables. I thought if in a country the mental health care was good organized mental health problems are more accepted than people also feel less

discriminated against and have a higher job appraisal. But because I could not measure that this is also not included in my research.

I also wanted to include meso-level moderators. Because I was interested in for instance, if the organization where people work influences the relationship between experiencing a depression and job appraisal. Unfortunately, the dataset did not allow to include meso-level variables because they were not available in the dataset.

5.3: Recommendations for future research

During this research, I have noticed that there is little research done on this specific subject. While I do believe that this is a very important subject. Because of that, I will do some recommendations for future research to improve studies on this subject.

I have mentioned that I would include meso-level factors in my research. For instance, if the organization or company where people work has an influence on the relationship between experiencing a depression and job appraisal. This was not available in this dataset, but this research raises the question if there are differences at the organizational level which have an influence on the relationship between experiencing a depression and job appraisal. So it is recommended for future research to include also meso-level variables.

In the discussion, it is mentioned that I would like to include religion as an individual variable. This was not available in the Eurobarometer 73.2, but I would recommend for future research to include religion as an individual level variable. I think that religion could have an influence on job appraisal, so it would be interesting to test if this influences the relationship between experiencing a depression and job appraisal.

Since none of the expected factors had an influence on the relationship between experiencing a depression and job appraisal, it would be interesting to further investigate this. The expected factors were based on discrimination literature, but these factors do not account for the relationship between experiencing a depression and job appraisal. It is an option to do a same kind of research as this one and add other micro, meso, or macro level variables. But I think that it would be more effective to start with a way smaller sample and do qualitative research on that sample. Because if all these factors based on existing theory do not work, you do not know which factors could work. When you start with the qualitative research you can ask people more about what they feel and why. If you can see a pattern in that, it can be translated into a questionnaire.

Appendix

1.1: t-test for depression on job appraisal

Group Statistics					
	depressed	N	Mean	Std. Deviation	Std. Error Mean
appraisal	,00 Not depressed	10049	2,1595	,76545	,00764
	1,00 Depressed	1769	1,7609	,90056	,02141

Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference
									Lower Upper
appraisal	Equal variances assumed	124,817	,000	19,642	11816	,000	,39864	,02030	,35885 ,43842
	Equal variances not assumed			17,536	2239,930	,000	,39864	,02273	,35406 ,44322

1.2: Pearsons correlation of experiencing a depression and level of public stigma

Correlations			
		stigma.perc	depressed.perc
stigma.perc	Pearson Correlation	1	,526**
	Sig. (2-tailed)		,000
	N	12137	12137
depressed.perc	Pearson Correlation	,526**	1
	Sig. (2-tailed)	,000	
	N	12137	12137

** . Correlation is significant at the 0.01 level (2-tailed).

1.3: Intra-class correlation null-model

Estimates of Covariance Parameters ^a						
Parameter	Estimate	Std. Error	Wald Z	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Residual	,610198	,007940	76,847	,000	,594832	,625961
Intercept [subject = countries] Variance	,031640	,009210	3,435	,001	,017884	,055977

a. Dependent Variable: appraisal.

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