

UNIVERSITY OF TWENTE.



Universitätsklinikum
Hamburg-Eppendorf

How do people experience Online Depression Screening?

A qualitative study

Master thesis

Celia Kumpmann

Health Psychology and Technology

Faculty of Behavioural, Management and Social Sciences

January 2022

Supervision: Dr. Anne van Dongen, Prof. Dr. Falko Sniehotta

Organisation: University of Twente

Abstract

Background: Since the internet is becoming an increased source for individuals to look up and self-diagnose mental disorders such as depression, it is crucial to understand how people with an undetected depression perceive online screening and how it affects them. Whereas depression screening has been studied in quantitative studies, there are only a few studies that investigated the patient's perspective. It is not known how depression online screening does affect the individual yet. Studying the patient's perspective qualitatively, however, could gain better understanding of the participants resulting thoughts, feelings, and actions after having participated in screening.

Methods: For this qualitative study, semi-structured interviews were conducted with 10 patients who scored positive in an online depression screening questionnaire (PHQ-9). Five of the 10 participants received feedback with diagnosis tendency right after screening (feedback group) and five did not (no feedback group). The interview was conducted by telephone six months after participants have participated in screening. All interviews were audio-recorded and transcribed verbatim. The interview transcripts were analysed using thematic analysis as described by Braun and Clarke.

Results: Overall, five themes were identified: 1) Screening starts a process of becoming aware of symptoms. 2) Screening results in emotional reactions. 3) Screening leaves participants feeling alone. 4) Screening provides easy access to approach, deal, and cope with depressive symptoms. 5) Screening evokes fear of being labelled and its resulting consequences. In all themes except theme 2 (emotional reactions) no differences or irregular patterns were found between the feedback and no feedback group.

Discussion: Screening revealed to be a holistic experience leading to more negative than positive emotions but thoughts and actions that contributed to recovery. The fear of being labelled depressed was a major topic in the affected individuals experience of getting in touch with their depressive disorder. Findings can be used to inform future research aimed at improving the online screening processes for depression and creating a positive screening experience tailored to the needs of the individual.

Keywords: *Depression, early detection, online screening, qualitative methods*

Table of contents

- 1. Introduction..... 1**

- 2. Theoretical framework..... 2**
 - 2.1 Depressive disorders 2
 - 2.1.1 Epidemology..... 3
 - 2.1.2 Depression detection..... 4
 - 2.1.3 Depression screening 4
 - 2.2 (Online) help- seeking for depression 6
 - 2.3 Depression online screening..... 7
 - 2.3.1 Self-diagnosing..... 9
 - 2.4 The danger of online screening and self-diagnosing..... 10
 - 2.5 Being labelled mentally ill 10
 - 2.5.1 The role of stigma..... 12

- 3. The current study..... 14**

- 4. Methods..... 15**
 - 4.1 Participants 15
 - 4.2 Procedure..... 15
 - 4.3 Data analysis 16

- 5. Results 17**

- 6. Discussion..... 18**
 - 6.1 Interpretation and discussion of qualitative data..... 18

6.2	Interpretation and discussion of results of research questions	21
6.3	Practical implications	23
6.4	Limitations and future research.....	23
7.	Conclusion	26
A.	List of Abbreviations.....	V
B.	References	VI
C.	Appendix	XVII
4.	Coding scheme	XVII
5.	Thematic mind map.....	XXIV

1. Introduction

Depression is a common mental disorder, and the leading cause of disability worldwide (WHO, 2020). Nevertheless, depression often remains undetected. It is estimated that one in ten people in Germany experience a clinical depression once in their lifetime (Busch et al., 2013) but only half of those are correctly diagnosed as such (Trautmann & Beesdo-Baum, 2017). Untreated depression leads to high costs for healthcare and society, and for those who are affected to an increased likelihood for a chronic course, reduced quality of life and an increased disease burden (Kleine-Budde et al., 2013; Moock, 2014; Smit et al., 2006). Addressing the issue of undetected depression, online screening seems to be a promising approach for early discovery since the internet has become an important space for information seeking regarding mental health (Houston et al., 2001). The anonymity of the internet offers people the opportunity to look up symptoms and seek diagnosis without having to consult a professional first (Houston et al., 2001; Williams et al., 2014). However, it is unclear how online screening affects depressed individuals.

Whereas depression screening has been studied in quantitative studies (Houston et al., 2001; Tasneem Hassem & Sumaya Laher, 2021), there are only a few studies that investigated the patient's perspective (Wittkamp et al., 2008). Further, several depression screening studies do not report any effect of screening. Studying the patient's perspective qualitatively, however, could gain greater insights into how individuals experience online depression screening and if it is of more benefit or harm.

2. Theoretical framework

2.1 Depressive disorders

Depressive disorders are amongst the most significant clinical disorders that have an impact on both mental and physical health. Individuals with depression experience a combination of symptoms of greater intensity and duration of sadness, depressed mood, and functional impairments that interfere with their daily life more than normal (Carvalho & McIntyre, 2017). Depressive disorder episodes are characterised to last at least two weeks but can differ in length, frequency, and recurrence. Six forms of depressive disorders exist according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) and include major depressive disorder, persistent depressive disorder, disruptive mood dysregulation disorder, premenstrual dysphoric disorder, substance-induced depressive disorder, and depressive disorder due to another medical condition (American Psychiatric Association, 2013).

This paper focuses on major depressive disorders which are known as the classic condition of depressive disorders. Major depression is characterised by the occurrence of one or more depressive episodes in a person that has never experienced a period of abnormal sadness and depressed mood before (Carvalho & McIntyre, 2017). Depressive disorders cover according to the DSM -5 a range of symptoms: depressed mood, loss of interest or pleasure, significant unintentional weight loss or gain or a de-/increase in appetite, insomnia, or hypersomnia, psychometric changes, tiredness, fatigue, or low energy, a sense of worthlessness or excessive guilt, an impaired ability to think, concentrate or make decisions and/or, recurrent thoughts of death, suicidal ideation, or suicide attempts (American Psychiatric Association, 2013).

There are several life events such as unemployment, bereavement, trauma, or stress which are likely to trigger depression. However, a depressive disorder often cannot be traced back to one single event or cause. The development of a depressive disorder is caused by a complex interaction of biological, social, and psychological factors (NIMH, 2018; WHO, 2020). Once having a depressive disorder, it can lead to more stress and dysfunction and worsen the affected persons situation and their depression itself. But also factors such as previous episodes of depression, history of other mental disorders or substance use, sex, and age need to be taken into consideration (NIMH, 2018). Depression can develop at any age but often begins in adolescents and young adulthood. This is a stage in life where many major life changes occur. In mid- and late-life depression often occurs due to other physical illnesses such as

cardiovascular disease, diabetes, or cancer. Depression often worsens the physical condition and medications taken for physical illnesses may contribute to side effects of a depressive disorder as well (NIMH, 2018; WHO, 2020).

Taken all together, depression is a disease that can be very complex and therefore causes serious consequences for the affected person when not treated. First, it can raise the risk for chronic diseases and make it more difficult to overcome the illness. This is associated with rising healthcare costs (Kleine-Budde et al., 2013). But not only healthcare costs, it is estimated that untreated depression costs more than 43.7 billion in absenteeism from work and lost productivity (Berto et al., 2000). Moreover, depression is very stressful for relationships with family members and friends and often leads to the inability to maintain these connections (Rehman et al., 2015). To overcome this pain, depressed people often have an increased urge to involve in risky behaviour such as drug or alcohol overdosing (Mullen, 2018; Quello et al., 2005). Depression can be treated in 80 % of cases successfully (Felix Torres, 2020) but if it remains untreated it can last for months or even years and lasting for longer periods of time, the risk for suicide increases (Mullen, 2018).

2.1.1 Epidemiology

The World Health Organisation ranked major depressive disorders as the leading cause of disability and third leading cause of burden of disease worldwide (WHO, 2020). The 12-months prevalence of depression varies considerably due to intercultural variations of social, economic, and political factors but is approximately 6 % overall (Kessler & Bromet, 2013). The lifetime prevalence is about three times higher ranging from 15 % to 18 % (Bromet et al., 2011). Meaning that 264 million people are estimated to be affected globally (WHO, 2020). In Germany, the lifetime risk to suffer from a depressive disorder is ranging from 11.1% in men and 23.3% in women. For men and women, the prevalence is highest (8,1%) among adults between 18 and 29 years and decreases with age. The lowest prevalence is found in both sexes between the ages 70 and 79 (Busch et al., 2013; Jacobi et al., 2014; Petermann et al., 2018). Depressive episodes which already start at a young age are in 80 % of cases recurrent (Hautzinger & Thies, 2009). Women in all age groups show a three-time higher prevalence than men. Persons are less likely to experience depressive symptoms the higher the socioeconomic status (SES). In women but not in men, prevalence decreases with increasing SES (Busch et al., 2013). The prevalence differences in depression between men and women are referred to as the gender gap. This gender gap is linked to sex differences in biological and psychological susceptibility (Kuehner, 2017).

Between 2009 and 2017 a study of the Research Institute of Ambulatory Health Care and the Robert Koch Institute showed a continuous rise in depression diagnosis of 26 % in Germany. The increase in depression prevalence was more strongly found in men compared to women (+40% vs. +20%) and in the age groups 15 to 19 and 20 to 24 years (Steffen et al., 2020). However, some studies propose that the increase in depression rates is caused by a growing population and more frequent screening rather than an overall increase in prevalence (Bretschneider et al., 2018). Up to date, the COVID-19 pandemic outbreak caused an enormous psychological burden for most people and has caused extensive challenges to mental and physical health. Current studies show a significant and steady increase in depression symptoms and distress since the outbreak in Germany since the beginning of 2020 (Bäuerle et al., 2020; Cohrdes et al., 2021). This rising prevalence underlines the importance for further research and the need to establish ways for early detection to minimise the risk for recurrent cases and a severe course.

2.1.2 Depression detection

Most depressed patients contact their primary care physician first regarding help (Checcucci & Brunner, 2019). Research shows that patients developing a depressive episode had consulted their physician at least once in the past 12 months (Akincigil & Matthews, 2017; Carvalho & McIntyre, 2017). However, only 50 % of depressive disorders are correctly detected as such in primary care (Checcucci & Brunner, 2019; Trautmann & Beesdo-Baum, 2017). Depression manifests in different symptom combinations, which makes detection more difficult. Some symptoms are very specific such as depressed mood or loss of interest or pleasure. Other symptoms such as fatigue, loss of appetite or weight and insomnia are very common in other medical conditions as well (Malhi & Mann, 2018). As a consequence, depression is often missed or misdiagnosed in primary care. Under diagnosis of patients with a major depressive disorder seems to be due to errors of clinical judgement regarding the severity of symptoms (Carvalho & McIntyre, 2017). Sometimes, when depressive symptoms are present but not sufficient in their severity to be seen as depressive disorder, they are referred to as subthreshold depressive symptoms and could serve as early indicators of a major depressive episode (Malhi & Mann, 2018).

2.1.3 Depression screening

One promising approach to increase early depression detection is depression screening. The severity of depression can be quantified with rating scales (Malhi & Mann, 2018; Reynolds

& Frank, 2016). Therefore, screening tools have been developed to help identify patients who may have depressive disorder but who do not have a diagnosis yet (Costantini et al., 2021). Depression screening involves the use of self-administered questionnaires to help identify depression in clinical settings or for self-report (Costantini et al., 2021; Reynolds & Frank, 2016). Several depression screening tools exist and are very popular among clinicians (Malhi & Mann, 2018; Mitchell et al., 2016). One of them is the Patient Health Questionnaire 9 (PHQ-9; figure 1) which has been identified as one of the most reliable screening tools to monitor the severity of depression (Costantini et al., 2021). As the name already says, the instrument includes 9 questions, and the results are used to make a depression diagnosis according to DSM-5 criteria. Nevertheless, it is important that physicians do not only rely on questionnaires and also access contextual factors and general functioning (Malhi & Mann, 2018; Siu et al., 2016).

In practice, screening tools have a potential for overdiagnosis. Tools must be accurate enough to correctly identify unrecognised depression cases and effectively rule out non cases to avoid unnecessary mental health treatment (Thombs et al., 2012).

Over the <u>last 2 weeks</u>, how often have you been bothered by any of the following problems? <i>(Use "✓" to indicate your answer)</i>	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

Figure 1: Patient Health Questionnaire 9 (PHQ-9)

Depression screening in primary care is a highly debated and controversial topic. Clinical guidelines do not agree on whether primary care patients should be screened for depression or not (Thombs et al., 2012; Thombs et al., 2021; Thombs & Ziegelstein, 2014). In the UK, for example, the National Institute for Health and Care Excellence (NICE) recommends to not screen routinely, but be alert to possible depression, particularly among patients with a chronic medical condition or a history of depression or other mental disorders (Thombs et al., 2021). The UK National Screening Committee recommends against screening after an evidence review in 2020. Evidence shows that it is uncertain if screening would reduce the negative impact of depression and if treating mild depression reduces the development of more severe depression in the long term (UK National Screening Committee, 2020). The Canadian Task Force on preventive health care (CTFPHC) recommends against screening as well, stating the concern that a high proportion of positive screens would be false positive (Canadian Task Force on Preventive Health Care, 2021). The US Preventive Service Task Force (USPSTF), on the other hand, recommends screening in all primary care patients when “adequate depression care programs are in place to ensure accurate diagnosis and effective treatment and follow-up” (US Preventive Services Taskforce, 2016). Concluding, there is still insufficient evidence whether depression screening improves mental health outcomes and if it is more of benefit or harm (Roseman et al., 2016; Thombs et al., 2012).

2.2 (Online) help- seeking for depression

More than 264 million people are suffering from a depressive disorder worldwide and the number still rises (WHO, 2020). However, depression is a treatable mental disorder and evidence-based and effective treatments exist (Magaard et al., 2017). Still, a vast majority of individuals who suffer from depressive symptoms do not receive or seek help (Bifftu et al., 2018). Epidemiological evidence shows that in general only 55 % of individuals with depression are seeking professional help in Europe (Bifftu et al., 2018; R. Kohn et al., 2004). Considering the high burden of disease and the low number of individuals seeking help, it is important to find a way to close this gap.

While often feeling threatened to confront a health professional for mental health problems, the internet has become a new and better possibility for seeking mental help. Research showed that people are more comfortable to disclose sensitive information in computer-based settings compared to face-to-face conversations (Buchanan, 2002; Donker et al., 2010). In fact, the internet has become the most popular source for looking up health information and searching for health information has become one of the most popular reasons

for surfing the internet (Fox, 2014; Houston et al., 2001; T. Eng & D. Gustafson, 1999). In Germany, for example, one in four individuals is seeking help for mental health problems online (Eichenberg et al., 2013). Next to formal (e.g. health services) and informal (e.g. family and friends) help-seeking, the internet invented self-help as a new form to receive help (D. J. Rickwood, 2010; D. Rickwood & Thomas, 2012). Self-help includes assistance and feedback from online sources that do not acquire communication with a real person (D. Rickwood & Thomas, 2012). Many platforms offer anonymous, easy and flexible access to mental healthcare 24 hours a day (Christensen & Griffiths, 2002). Websites, online forums, and social media in particular have shown great motivation in seeking help (Hui et al., 2015). Online content fosters mental health literacy and empowers the user with greater control of self-diagnosing and managing one's condition (Houston et al., 2001). On a more economic level, online media has great potential to spread health information across large populations from a broad geographic area at low cost (Hui et al., 2015; Moock, 2014). It is not surprising that many healthcare providers and mental health interventions have shifted to an online presence.

2.3 Depression online screening

Screening for depression over the internet has been available since the 1990s (Ogles et al., 1998) and has been discussed ever since. But it is only in the last few years self-screening has gained popularity (Duckworth & Gilbody, 2017; Thombs et al., 2012). Studies show that internet-based screening is preferred over screening by a healthcare professional for several reasons. For one, mental health is a sensitive topic and affected individuals see the benefit of anonymity and privacy of their data. The immediate feedback about their mental health state seems attractive for users to understand their symptoms better. Moreover, online screening feels nonthreatening since individuals do not have to get in contact and confront with a health professional (Donker et al., 2010; Houston et al., 2001). Additionally, the internet offers the possibility to tailor feedback to each participant individually. Tailored messages are read more frequently, are better remembered, and perceived as more relevant and therefore, leading to enhanced patient engagement and motivation to seek help (G. L. Ryan et al., 2001). Making depression screening available for everyone through internet-based questionnaires increases awareness and establishes a common language of depressive symptoms in public (Duckworth & Gilbody, 2017). That means that online screening should not replace seeing a professional, but rather function as widely available education tool to encourage conversations with professionals. It could help to empower patients and give them a better understanding and

therewith chance of getting the help they may need (Duckworth & Gilbody, 2017; Houston et al., 2001).

Even though online screening brings many advantages, there is always a downside with it. The internet is accessible for anyone. By googling `depression test` many different surveys come up, many of them not clinically validated or beneficial (Mulrow et al., 1995). Many online websites such as Google itself generate high revenues through targeted advertising and by making use of the end users provided data (Duckworth & Gilbody, 2017). This is making it extremely difficult for users to separate between reliable and non-reliable screening websites. It has been shown that misuse of data is especially taking place on the US market. Online questionnaires have been misused to make individuals self-diagnose and purchase branded drugs (Duckworth & Gilbody, 2017; Horwitz & Wakefield, 2012).

Depression online screening shows high false positive rates. Often, these may result from a range of other disorders than depressive disorders such as post-traumatic disorder, personality disorder or bipolar disorder (Maske et al., 2017; RKI, 2017). Also, reviews show that screening programs do not always improve depression. As mentioned above, it is recommended that depression should only be screened for when adequate systems are in place to ensure effective treatment and follow up. Online screening tests do not provide such treatments and follow-ups but leave the user with their result alone (Duckworth & Gilbody, 2017; US Preventive Services Taskforce, 2016). It is argued that depression should be diagnosed after a clinical assessment instead of by completing a single PHQ-9 test alone. The stated reasons show that online depression screening is unlikely to improve health but may do harm (Duckworth & Gilbody, 2017; Houston et al., 2001).

Nevertheless, implementing a standard depression screening tool such as the Patient Health Questionnaire 9 is assumed to increase public awareness and a common knowledge and enhanced communication about depressive disorders (Duckworth & Gilbody, 2017; Houston et al., 2001). For example, if an affected individual is reporting their PHQ-9 score of 6 or 17, to their doctor, any professional could immediately triage the person appropriately. Online screening could add to already existing investments in care, such as telemedicine, teletherapy and online cognitive therapy (Duckworth & Gilbody, 2017; Moock, 2014).

Last, it is suggested that depression online screening will be more successful in identifying younger individuals with depression. Older adults are often not familiar with new arriving technology and therefore are less likely to participate (Cronly et al., 2018; Houston et al., 2001; Trustram Eve & Jager, 2014).

2.3.1 Self-diagnosing

Depression Online screening results are often used as a tool for self-diagnosis. Self-diagnosis refers to identifying a medical diagnosis based on self-reported symptoms without having consulted a healthcare professional (A. Ryan & Wilson, 2008). Due to the increasing use of technology and availability of health information and self-diagnosing tests online and long waiting lists at the doctors, people have turned to the internet as their first healthcare resource (Fiksdal et al., 2014). In 2015, a UK-wide study (MDDUS, 2015) reported that general practitioners noticed an increase in people self-diagnosing online. With this rise many concerns appeared. Physicians worried about an increased appointment-making by people discovering conditions where there are none, and on the other hand, people failing to confirm their online diagnosis. People searching the internet for self-diagnosis are often not aware of the quality of online tools (Farnood et al., 2020). Poor quality of health information is often difficult to separate from resources of clinical evidence by lays (Cline & Haynes, 2001). The overwhelming amount of information online often leads one to choose commercial internet sites with information and self-help tools of poor accuracy. Poor accuracy is a huge problem when it comes to self-diagnosing. Wrong self-diagnosis of mental symptoms can worsen the course when trying to cure the diagnosis by self-selection of treatment (Cosgrove et al., 2017). Mental disorders are often very complex, and many symptoms can be associated with numerous mental illnesses (Maske et al., 2017). A study of the Robert Koch Institute (RKI, 2017) analysed whether self-diagnosed depression actually met the clinical diagnostic criteria of a depressive disorder during a 12-months period. Standardised clinical interviews according to classification criteria detected depression in only 37 % of respondents who self-reported a diagnosis of depression. 36 % of cases fulfilled the criteria for a different mental disorder than depression and 27 % of respondents with self-reported depression revealed no mental disorder. These numbers show that depression prevalence can be both over- and underestimated depending on whether diagnosis is based on professional or self-report (Maske et al., 2017; RKI, 2017).

Self-diagnosis reassures the patient while waiting for a doctor's appointment, increases knowledge and prepares for the appointment itself (Farnood et al., 2020; Lee et al., 2014). Patients felt that they were having a better understanding of their symptoms and condition and felt better prepared to engage with the healthcare professional effectively (Bowes et al., 2012; Lee et al., 2014). However, patients reported as well that self-diagnosis causes misunderstandings between them and their physician. While most patients trust their primary care physician diagnosis more than their self-diagnosis, just as many do not trust their

physicians if the diagnosis differs from their self-diagnosis (Farnood et al., 2020; Lee et al., 2014).

2.4 The danger of online screening and self-diagnosing

While depression screening seems of great advantage for the individual, there are many risks attached to it (Cosgrove et al., 2017; Duckworth & Gilbody, 2017). Adequate resources are not provided when screening online and individuals are left alone with their diagnosis (Duckworth & Gilbody, 2017). Since depression is a stigmatised illness, many individuals are not familiar with, affected people do not know how to proceed or where and when to seek help (Khan et al., 2009). This may result in self-selection of drugs and treatment (Cosgrove et al., 2017). Often websites already advertise branded drugs or treatment which is not based on clinical evidence (Duckworth & Gilbody, 2017). This seems an ethical issue which needs further consideration. Moreover, many healthcare systems cannot meet requested standards of treatment resources for depression. It is assumed that depression screening will result in an upward trend in antidepressant prescription rather than providing therapy (Kendrick, 2021). But antidepressants are known for several side effects and coming off drugs is often difficult due to withdrawal symptoms and again a lack of psychological treatment (Kendrick, 2021). As can be seen, depression online screening still faces many barriers. Further research will be needed to address the potential risks and ethical issues of depression screening for the individual.

2.5 Being labelled mentally ill

With the introduction of the first edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM) in 1952, mental disorders became diagnosed more accurate and frequently (American Psychiatric Association, 1952) and in the meantime, negative stereotypes and prejudices associated with mental illness developed (Cox et al., 2012). Terms such as 'freak' or 'being hysterical' are common names for the mentally ill until today (Cox et al., 2012; Goffman, 1986). Individuals diagnosed are given a degrading label by the majority. This label leads people to see their medical symptoms as their overall identity. People were seen as being ill rather than having a mental illness (Maloušková & Fafejta, 2021; Pasman, 2011). In 1966, the sociologist T.J. Scheff introduced the first labelling theory which declares the idea that being labelled mentally ill causes one to be mentally ill (Scheff, 1974). This theory, however, was criticised and debated and never gained hard evidence (Bruce G. Link et al., 1989). Instead, a modified version of the labelling theory was developed by Link, 20 years later. The new theory removed the connotation regarding causation and states that the mentally ill show non-adaptive

coping responses which are caused by negative consequences of being labelled (Bruce G. Link et al., 1989). Link argued that those diagnosed with a mental illness expect rejection and therefore, act in ways that fosters rejection (Bruce G. Link et al., 1989). This process results in a self- fulfilling prophecy, which claims that mentally ill people act more defensively and even avoid social interaction. Resulting in less satisfying interaction in affected people and their social counterpart (B. G. Link et al., 2001).

Negative stereotypes of mental illnesses are learned and internalised already from childhood on and become perceived as violating the social norm (Goffman, 1986; Scheff, 1974). People being affected have this internalised concept of violating the social norm and of what others expect of them as a mentally ill person. Resulting in acting out the role expectations. Through stereotypes people get separated into 'normal' and 'abnormal', to 'us' and 'them' (P. W. Corrigan, 2007). Consequently, labels, and stereotypes create status hierarchies and inequalities. Hierarchies and inequalities for the mentally ill result in many disadvantages such as discrimination at work and therewith reduces a person's life chances. For that reason, people of a stigmatised group such as depression engage in label avoidance. Thus, they cannot be identified with the group and escape the negative effects of stigma (P. W. Corrigan & Wassel, 2008). It is very common that affected people avoid their symptoms. This label avoidance is the active decision to not disclose a recognised mental dysfunction and thereof, not seek help (P. W. Corrigan et al., 2014). This avoidance process already starts before symptoms even occur. Self-labelling is a process of four successive interrelated steps (Stolzenburg et al., 2017). First, individuals need to become aware of their symptoms or that something is not quite right (symptom awareness). Second, the recognised symptoms need to be considered as illness (symptom appraisal) and, third, symptoms need not only be considered as illness, but as mental illness (self-identification as having a mental illness). Finally, being aware of their mental illness symptoms, affected individuals decide to self-label or self-diagnose as being mentally ill (self-labelling). But personal stigmatisation and avoidance can interfere with this process at any stage (Stolzenburg et al., 2017). The more negative individuals feel towards others with mental illness, the more difficult it will be for them to be aware of their own symptoms, appraise them as illness, self-identify and self-label as being mentally ill (Stolzenburg et al., 2017). On the other hand, having had previous treatment for mental health problems showed positive relations to all stages of self-labelling. Individuals having already received mental treatment, had most likely been diagnosed and were more likely to see their present problem as being part of a potential mental illness (Peter et al., 2019).

Nevertheless, labelling has positive psychological effects as well. Mentally ill people often describe that they feel relieved when being diagnosed (Young et al., 2008). One struggle of affected people is that they often cannot explain their behaviour which results in self-questioning “What is wrong with me?”. A diagnosis helps people to understand their symptoms and behaviour better (P. W. Corrigan, 2007). Given a name for their dysfunction makes people feel acknowledged and taken seriously in their situation (Young et al., 2008). Furthermore, a diagnosis has a positive effect on the individual’s self-concept. It gives the possibility to blame their disorder rather than their own character flaws for certain behaviour. People tend to blame external factors for negative behaviour and taking personal credit for positive behaviour. This self-serving bias is associated with higher self-esteem. In this case, the label functions as explanation or justification for socially unacceptable behaviour (Gazzaniga et al., 2016; Pasman, 2011). Another effect is that the classification of mental illnesses provides a common language. Labels can prevent rejection. When people know someone’s label, they might be more understanding towards intolerable behaviour (Crouch, M. A. & Straub, V., 1983). But even more importantly, a label helps individuals to get the right treatment. Medications and therapy programs can especially be tailored to the patient’s problems and symptoms. Proper treatment provides people with the opportunity to heal. At the same time, it empowers the patient to cope and live with their disorder and additionally increases their self-esteem and self-efficacy which increases their wellbeing (Ashcraft & Fitts, 1964; Pasman, 2011).

2.5.1 The role of stigma

Many people who suffer from depression still experience stigmatisation, discrimination and prejudice (P. W. Corrigan & Rao, 2012; P. W. Corrigan & Wassel, 2008). The term stigmatisation is a social construct that involves negative attitudes or discrimination against someone distinguishing from the social norm (Byrne, 2000). Further, stigmatisation is distinguished between public stigma and self-stigma. Public stigma refers to discrimination and negative attitudes about people or groups with undesirable characteristics by members of the society (P. Corrigan, 2004; Latalova et al., 2014). Self-stigma occurs when people internalise these public attitudes (Latalova et al., 2014). Common attitudes towards depression may be that ‘depression is not a real illness’, ‘they are just lazy’ and ‘they need to pull themselves together’ (Khan et al., 2009). These perceived representations of mentally ill people trigger emotional and behavioural reactions. It can be distinguished between three emotional reactions based on four determinants of stigmatisation. These reactions are fear, pity and anger leading to certain behaviours. The four determinants of stigmatisation are perception of contagiousness of the

disease, which can lead to fear and avoidance behaviour. Second, perceived seriousness of the disease leads to fear but also pity. High perceived responsibility of the patient leads to anger, but low perceived responsibility leads to pity. Lastly, perceived norm-violating behaviour of the patient in terms of having the disease is leading to anger, but if not norm-violating to pity. Depression is especially perceived as high personal responsibility of the patient which leads to anger and therewith more stigmatisation and avoidance (Dijker & Koomen, 2007).

The affected persons negative emotional reactions towards stigmatisation result in low self-esteem and poor self-efficacy (P. W. Corrigan & Rao, 2012; Latalova et al., 2014). Self-esteem and self-efficacy are two important components of the self-concept. A self-concept is defined as everything someone knows and thinks about themselves of who they are. Self-esteem defines a person's general subjective feeling of personal worth and value. Self-efficacy is one's belief in one's ability to accomplish a certain task (Bandura, 1997; P. W. Corrigan et al., 2006; Gazzaniga et al., 2016). Stress and loss of social support due to stigmatisation, discrimination, and negative internalised thoughts about the mentally ill have a negative impact on self-esteem and self-efficacy and diminish feelings of self-worth and believing in oneself (P. W. Corrigan et al., 2006; P. W. Corrigan & Rao, 2012). Consequently, low self-esteem and self-efficacy are found to be associated with not taking advantage of opportunities that facilitate employment or independent living, lower use of healthcare service, poor health outcomes and poor quality of life (P. W. Corrigan & Rao, 2012). It can be concluded that stigma of mental illness worsens the course of illness.

3. The current study

This study aims to give insight into the perspective of the patient during online depression screening. Online diagnosis especially for mental disorders such as depressive disorders are more common than ever due to the wide availability of anonymous information on the internet (Fox, 2014; Houston et al., 2001; T. Eng & D. Gustafson, 1999). In Germany, every fourth individual is seeking help for mental health problems online (Eichenberg et al., 2013). Since the internet is such a preferred help-seeking source, internet-based screening with automated feedback has great potential to address individuals with undetected depression. Whereas depression screening has been studied in quantitative studies, there are only a few studies that investigated the patient's perspective. It is not known how depression online screening affects the individual yet. Studying the patient's perspective qualitatively could gain better understanding of the participants resulting thoughts, feelings, and actions after having participated in depression screening. Therefore, the following research question was developed: *How do people experience Online Depression Screening?*

For further differentiation, three sub-questions were developed. The first sub-question investigates emotional reactions of participants having experienced screening: *What are emotional reactions following depression online screening?* Second, to investigate thoughts and actions resulting from the screening experience, the following sub-question is proposed: *What are initiated thoughts and actions following depression online screening?* Third, this study investigates differences in the screening experience of participants who have received feedback after screening and participants who have not. Therefore, the third sub-question has been developed: *Are there differences in the experience of people getting feedback after depression screening and people getting none?*

The results of this study will inform about how feedback after internet-based screening has been perceived and how screening could improve early detection of depression. Findings can help to understand if depression online screening is more of harm or benefit for the affected individual.

4. Methods

4.1 Participants

A total of 10 participants consented to participating in the current study. Participants were randomly selected from a larger quantitative sample. For the interviews, it was made sure that no- feedback (N=5) and feedback (N=5) participants were selected in equal numbers. Interviews were conducted with individuals from all over Germany. The mean age of this group was 31,9 years and most participants were female (N=8). Regarding their depression severity, 5 participants reported a severe and 5 a moderate course of depression. The majority (N=6) of participants never had a depression diagnosis before. Four participants had already received a depression diagnosis during their lifetime. A full overview of all participant characteristics is displayed in table 1.

Variable	N= (feedback)	N = (no feedback)
<i>Age</i>		
18 – 30	4	3
31 – 40	0	1
41 – 50	1	1
<i>Gender</i>		
Female	4	4
Male	1	1
<i>Depression severity</i>		
moderate	4	1
severe	1	4
<i>Ever diagnosed before (Depression)</i>		
Yes (more than 2 years ago)	2	2
No	3	3

Table 1: Participant characteristics

4.2 Procedure

Participants who showed interest in the interview were contacted within a few days to provide more information and to schedule an appointment. Participation in the interview was optional and involved a separate informed consent form (Appendix 1).

In total, 10 interviews took place which were conducted by telephone. Telephone interviews seemed to be the best option since participants were located all over Germany. Furthermore, the phone offers protection of the individual's identity since depression can be a very sensitive topic.

4.3 Data analysis

All interviews were audio-recorded and transcribed verbatim. The interview transcripts were analysed using thematic analysis. (...) Although the author led the analysis, the two supervisors were familiar with all ten transcripts and discussed each stage of the analysis with each other. Thus, the author was encouraged in developing, refining, and clarifying her thinking and therefore optimising the quality of the analytical process. In total three meetings took place in which coded content was viewed, discussed and next steps were talked about. Both supervisors made suggestions for the structure of the results section and recommended working with the data in the form of a mind map. After having created a mind map, the structure of results was found, and the five main themes identified: 1) Awareness of symptoms 2) Emotional reactions 3) Feeling alone 4) Initiated thoughts and actions 5) Fear of being labelled. The quality steps prescribed by Braun and Clarke (2006) were followed. MAXQDA software was used to assist with data coding and analysis. Names and any personal information of the respondents were removed to guarantee their anonymity. The coding scheme and thematic mind map of building themes can be found in Appendix 4 and 5.

5. Results

The analysis identified five themes which will be reported in this section. Themes represent together the overall screening experience as can be seen in figure 4.

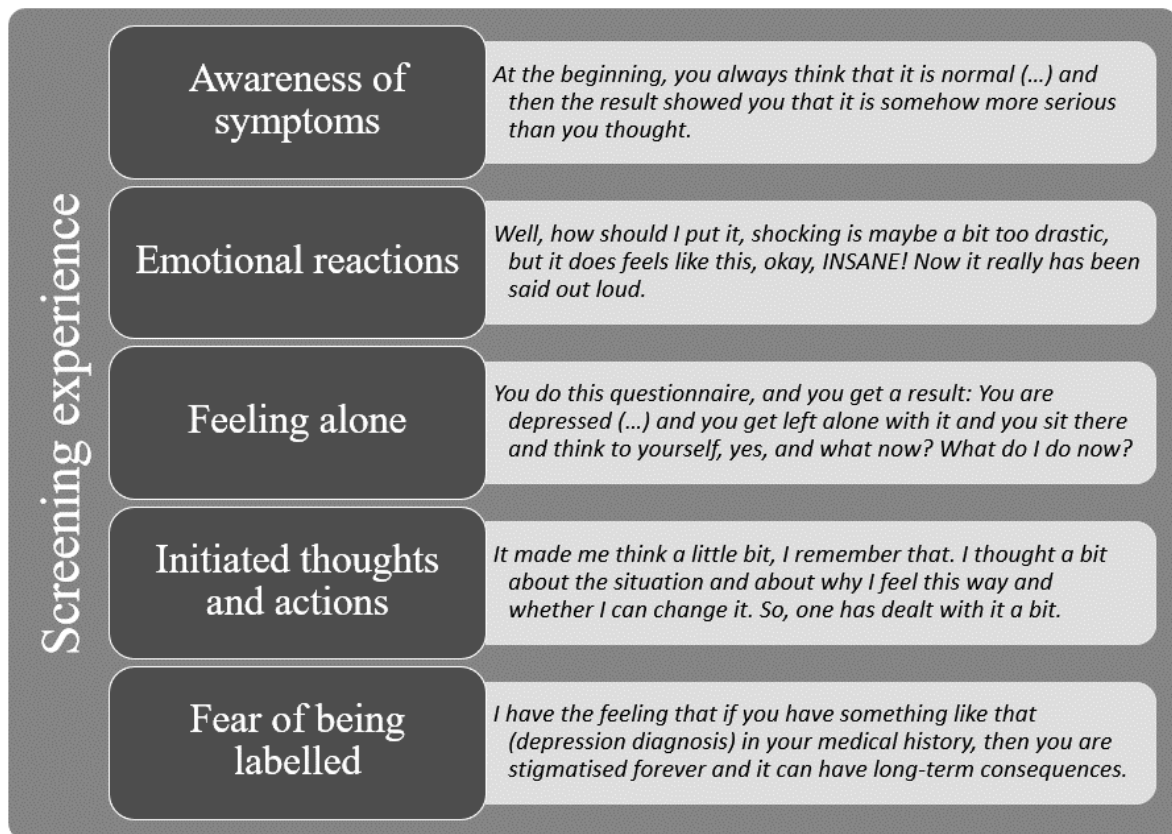


Figure 4: Five identified themes and quotations.

This study investigated how people experience online depression screening either followed by feedback with diagnosis or just a thank you note (no feedback). Screening resulted in both cases in the awareness of symptoms in participants (theme1). This process of becoming aware of their state of health led to emotional reactions, thoughts, and actions. Emotional reactions varied but were overall more negative than positive (theme 2). This new situation was difficult to deal with and made participants feel alone (theme 3). Thoughts and actions resulting from screening contributed mainly to the process of recovery, shifting the participants perspective of their situation (theme 4). Lastly, participants reported the fear of being labelled as depressed and therewith its negative resulting consequences (theme 5). Each theme is reported in more detail and illustrated with relevant data extracts in the following sections. (...)

6. Discussion

This qualitative study investigated the perspective of the patient during online depression screening. Therefore, semi-structured interviews were conducted with 10 participants with moderate to severe depressive symptoms. Five of the 10 participants received feedback with a diagnosis tendency after screening and five did not. Interviews took place six months after the participant completed screening. The participant's perspective was examined using several research questions. In summary, from all interviews five overall themes were identified: 1) Screening starts a process of becoming aware of symptoms. 2) Screening results in emotional reactions. 3) Screening leaves participants feeling alone. 4) Screening provides easy access to approach, deal, and cope with depressive symptoms. 5) Screening evokes fear of being labelled and its resulting consequences.

In the following paragraphs, results of the qualitative data collection will be interpreted, discussed, and linked to above stated research. In addition, the methodological approach of study analysis will be assessed and critically reflected. This will be necessary in order to evaluate the quality of findings. This way, research questions can be answered, practical implications developed and need for further research be made.

6.1 Interpretation and discussion of qualitative data

First, it needs to be mentioned that participants did rather talk in third person than in first person about their screening experience. The adoption of a third-person perspective suggests that participants had difficulty identifying with being mentally ill and can be seen as counter-productive avoidance as stated in the systematic review by Wallace-Hadrill and Kamboj (2016). Before screening, participants reported that they did not know what was wrong and they were not aware of their symptoms consciously. By screening, participants became aware of symptoms for the first time by exploring them in the questionnaire. Beforehand, symptoms such as insomnia or tiredness were seen as normal. Screening started a process of realisation. Complaints were seen as symptoms for the first time. But naming them as part of a mental illness was still not possible. Moreover, participants became aware of the connection between their symptoms for the first time. Symptoms such as depressed mood and insomnia were experienced separately first but were brought in connection with each other through the questionnaire. Participants realised that their varying complaints could be coming from the same cause. Nonetheless, this awareness process described does not mean that participants were not aware before screening at all. They were probably sensing something which might be the

reason why they took part in this study. However, it is to say that this depression screening program was not advertised as depression screening but as screening for psychological distress. This way it was attempted to minimise stigmatisation. Also, people not receiving feedback after screening were having no idea that their symptoms could relate to a depressive disorder. Now, it is interesting to see that participants not receiving any feedback labelled their symptoms as depression anyway. Since the interview was held six months after screening took place, participants had time to research and conclude that information on their own or together with their physician.

The process of becoming aware of symptoms caused several emotional reactions. For this theme only participants with and without feedback showed clear differing patterns in their reactions. Participants who did get feedback reported emotional reactions of shock and relief. This reaction is not unexpected and can be explained by stigmatisation and the lack of knowledge about mental disorders. People have negative stereotypes about depressive disorders and when getting a label themselves they struggle to apply these stereotypes to themselves. Stereotypes are often not scrutinised as proper knowledge is not available (P. W. Corrigan, 2007). One in every five women and one in every eight men experiences an episode of major depression over the course of their life (Ormel et al., 2020). Given the frequency of diagnosis it is a shame that most affected individuals still have such limited knowledge about the condition. Mental disorders in general need to reach a stage where they are seen as equal to any other physical illness. Shock was followed by a feeling of relief. Relief because participants were able to explain their symptoms to themselves. Through a diagnosis the individual is given the possibility to blame their disorder rather than their own character flaws for certain mood and behaviour. This has a positive effect on the individual's self-concept given the fact that people tend to blame external factors for negative behaviour and take personal credit for positive behaviour. Here, the label 'depression' functions as explanation and justification (Gazzaniga et al., 2016; Pasman, 2011). Participants who did not receive a diagnosis tendency, reported no emotions of shock or relief but feelings of sadness, guilt, self-pity, frustration, and gratitude. Feeling sad, frustrated, guilty or in self-doubt might conflict with help-seeking behaviour. Therefore, screening is the ideal way to get in contact with these individuals. Screening provides the opportunity of online anonymity for exploring and figuring out symptoms for themselves. This benefit of anonymity, however, also has its disadvantages which will be discussed in the following section.

The wish for anonymity and having a contact person at the same time is contradictory. Being confronted with a depression diagnosis can be tough and it is understandable that

individuals express the need to get further information and discuss with a specialist. This need conflicted with the wish to stay anonymous. This is why individuals often turn to the internet for further advice. While the internet offers tons of advice and free helplines, individuals are overwhelmed with the amount, uncertain what source to follow. Thus, seeking help becomes a huge hurdle for the affected person. Since mental health is a sensitive topic, people do not like to have it discussed with everyone. There is the fear of becoming stigmatised which leaves the individual in doubt about needing help. Next to that, depression is characterised by tiredness, low energy, an impaired ability to think, concentrate or make decisions which hamper help-seeking more than contributing to it. Arising thereby, online screening followed by further support is needed to meet the individual's needs. How that kind of support should look like did not get further addressed by participants and requires further research. One approach to address this issue was made by the US Preventive Task Force in the debate about screening guidelines for primary care patients. They recommended screening only when there are adequate depression care programs in place to ensure accurate diagnosis and effective treatment and follow-ups (US Preventive Services Taskforce, 2016). This adequate treatment and follow-up are not ensured when screening online. Since other debate opponents stated that screening should not take place at all due to several reasons this discussion needs to be shifted from primary care practice to patient online applications. The perspective of the patient needs to be better explored and requires greater emphasis.

Screening is seen as an easy way to approach and cope with depressive symptoms independently. Findings on initiated thoughts and resulting actions of screening are coinciding with the reviewed literature for this study. The anonymity of online screening gives participants the opportunity to process information at their own pace without having to explain their situation to anyone. This has the advantage that screening questions can be answered more honestly. Thoughts and actions participants reported following screening dealt with getting well again mentally. While the need to act and change their situation was present in all participants, only a few have managed to implement this change. There are several reasons why participants failed in turning thoughts into actions. One of those reasons is that participants repressed symptoms and diagnosis. By repressing symptoms, they did not have to deal with them which seemed the easiest solution. Also, participants tended to repress symptoms if they had no capacity to deal with them. Symptom repression can also be seen as a form of 'label avoidance' for participants who did get feedback. Label avoidance will be discussed later in this section.

The last theme 'Fear of being labelled' came up multiple times in previous themes already. Since the fear of a label and its resulting consequences seem of such particular

importance it should be discussed in more depth. The fear of a label and its consequences influences the individual during their whole course of illness. Young people especially struggle with a mental illness label as their self-concept is negatively influenced. Adolescence is a phase in which rapid psychological and social changes occur and many mental disorders develop (O'Reilly et al., 2018). As in this study, 70 % of participants were between 18 and 30 years of age. Labels separate people into different groups and consequently making people with mental disorders feel differentiated (P. W. Corrigan, 2007). These feelings can result in two outputs. Either the feeling of being different is so strong that people identify with their condition which is making it harder for them to improve their mental health in the future (Bruce G. Link & Phelan, 2001; Wisdom & Green, 2004) or to label avoidance. Through label avoidance people cannot be identified with the group and hence escape the negative effect of stigma (P. W. Corrigan & Wassel, 2008). These negative depression associations prevent individuals from seeking help.

6.2 Interpretation and discussion of results of research questions

To explain the overall research question: *How do people experience online depression screening* in more detail, the results on the three sub-questions will be discussed.

What are emotional reactions following depression online screening?

This first sub-question examined emotional reactions resulting from screening. Emotional reactions are varying in every participant. Overall, negative emotional reactions such as shock, sadness or guilt dominate positive reactions. There were in summary only two positive reactions described: Gratitude and relief. Further, it can be distinguished between participants who did get feedback and participants who did not as described in section 5.2 and 6.1. Shock and relief were two emotions that in general occurred together in feedback participants. A range of other emotions occurred in no- feedback participants. In those, no pattern was noticed. It can be assumed that with every additional interviewed participant the more emotional reactions will be added.

What are initiated thoughts and actions following depression online screening?

The second sub-question investigated in initiated thoughts and actions following screening. For this research question no patterns can be distinguished between participants with and without feedback. In general, participants reported that screening started a process of dealing and coping with becoming aware of symptoms. Participants came in touch with their

feelings, mood and physical complaints which created thoughts of wanting their health to change for the better. The wish to change occurred in many participants but only a few made this thought reality and took action. Actions included primarily looking for additional information about symptoms, looking for therapy or turning to friends and family for help. Actions by participants can be seen as help-seeking behaviour. Interpreting the data, thoughts and actions showed tendencies to recover and get well again.

Are there differences in the experience of people getting feedback after depression screening and people getting none?

This research question is examining all data sets on any differences in the experience of online screening of feedback and no-feedback participants. No differences or irregular patterns were found except in participants emotional reactions. But how can this be explained? Giving a little more in-depth insight into the no-feedback condition sampling can be helpful in this regard. Two of five participants with no feedback have already been diagnosed with depression several years ago. They were already familiar with their symptoms and might have drawn their conclusion. Another participant visited their primary care physician who assumed a depressive disorder. This is leaving only two participants of the no feedback condition who experienced their symptoms as psychological distress and did not get in contact with a depression label. This would explain why there is no difference in three of the five participants without feedback. But looking at the situation in more general terms, it can be said that individuals participating in screening and not receiving any feedback, experience the same as participants receiving feedback. Meaning, that the no- feedback group also realised that something is not quite right, that their mood does usually not look like this and that other complaints are also not conform with their normal state of health. They also see the need to change their situation. They also experience all kinds of emotional reactions, and they also wish to have a contact person to provide them with further information. They are also seeking for a solution and trying to act, and they also experience stigmatisation. The only difference between both groups is that one group is missing a label and therewith is left in the uncertain. If the label is of benefit during recovery has been discussed in section 2.5 and cannot be answered that simple. Since every individual is different, so is their course of illness and process to recovery. Some might benefit from a label, others are better left in the unknown.

6.3 Practical implications

The findings of the current study can be applied in practical contexts. First off, online depression screening is a great solution to increase understanding of the medical disorder depression and its symptoms in affected individuals. The result has shown that the general population has to be made more aware of mental health conditions and its treatments. The lack of knowledge leads to stigmatisation and fear as this study has proven. By providing screening, people are getting a tool at hand with which they are able to check in on themselves to gain a clearer and better picture of their situation. Online screening can be done everyday and people can track their mood frequently. Through gaining a better understanding of their mood, individuals are able to better react and go for the help they need. As has been shown in this study, online screening reduced the feeling of loneliness and feeling the need of pulling themselves together. Screening will help people to accept and deal with their symptoms better.

Findings can be used for improving online depression screening to create a positive screening experience for the user and to implement it on a large scale. Screening might contribute to an early detection and getting undetected individuals into treatment. It can be assumed that online screening is especially useful for individuals who are not familiar with mental health.

6.4 Limitations and future research

There are several limitations to this study which future research could build upon. The current study interviewed 10 participants, 70 % of them were in an age range between 18 and 30 years and 80 % of them were female. Thus, the experience of men and individuals over the age of 30 are under presented.

As literature shows young people have a different understanding of mental illness than the older generation has. It has been shown that older people (65 -74 years) were poorer at correctly identifying depression than young adults (Fisher & Goldney, 2003). This can have a number of reasons. One of them important to investigate for this study is that mental health messages are increasingly delivered over the internet which is less commonly accessed by older people (Farrer et al., 2008). Nevertheless, depression prevalence is highest among adults between 18 and 39 years and decreases with age (Busch et al., 2013; Jacobi et al., 2014; Petermann et al., 2018). Therefore, this study sample seemed not entirely wrong. Future research will be needed to investigate the age differences in depression online screening experience.

This study also represents the gender difference in mental health awareness. More women (N=8) participated in this study than men (N=2) due to greater interest. It is to be reminded that women in all age groups show a three-time higher prevalence than men (Busch et al., 2013). This suggests that the unequal distribution of men and women in this study might be suitable. Nevertheless, investigating in the men's perspective can certainly not be disregarded. Understanding in men and depression is greatly needed since research shows that men tend to deal with symptoms differently than women and are less likely to engage in help seeking. If depression online screening influences men in the same way as women needs to be investigated in future research. To overcome the difficulties in recruiting male and elderly participants, purposive sampling can be used to benefit future research.

In addition, 10 participants were interviewed for this study which is very little. Due to the time required for one participant, it was not possible to measure more subjects within the scope of this report.

Furthermore, depression severity of individuals is unequally distributed between feedback and no feedback group. Four individuals without feedback and only one participant with feedback showed a severe depression score during the PHQ-9 screening. For moderate depression the distribution was vice versa. Four individuals with feedback and only one participant without feedback showed moderate depression severity. Therefore, it needs to be kept in mind that results could have shown more and other differences between both groups if individuals with feedback would have had an equally severe course of illness.

The diagnosis of depressive disorder was assessed by a self-reported questionnaire (PHQ-9) and an additional short structured clinical interview (SCID) on the phone. This way, the diagnosis was confirmed, and it was ensured that only participants with a real depressive disorder condition participated. But this phone call might have affected the participants' sense of anonymity and furthermore their motivation and future behaviour. However, implemented online screening will not be followed by a phone call in daily practice. As a result, false positive diagnosis rates might increase including people who did wrongly were assessing themselves.

Lastly, conducting interviews for this study six months after participants have experienced screening is a long recall time. Six months was chosen to observe if online screening really helped participants recover from their depression. But to gain a deeper insight into the experience of screening, interviews should have taken place right after as participants can better remember their thoughts and feelings. For future research, two interviews should be held at two different points of time. Therewith, the experience right after screening can be observed as well as the recovery process a few months later.

While the current study has taken the first step towards discovering the perspective of the individual on depression online screening, it has been found that individuals experiencing similar thoughts and feelings. Future research is needed to explore if online depression screening might be of more benefit if targeted to certain groups such as age or gender related.

7. Conclusion

Since the internet is becoming an increased source for individuals to look up and self-diagnose mental disorders such as depression, it is crucial to understand how people perceive online screening and how it affects them. This study results revealed that screening overall leads to negative emotions but thoughts and actions that contribute to recovery. An important topic emerging from the results several times was the fear of being labelled as depressed. Even though participants remained anonymous while screening, the fear of a label still interfered with every step of the recovery process. Findings can be used to inform future research aimed at improving online screening processes for depression and creating a positive screening experience tailored to the needs of the individual.

A. List of Abbreviations

CTFPHC	Canadian Task Force on preventive health care
DSM-5	Diagnostic and Statistical Manual of Mental Disorders 5
MAXQDA	Qualitative Data Analysis Tool
N	Sample size
NICE	National Institute for Health and Care Excellence guidelines
PHQ-9	Patient Health Questionnaire 9
SCID (SKID)	Structured Clinical Interview for DSM-5
USPSTF	US Preventive Service Task Force
UKE	Universitätsklinikum Hamburg-Eppendorf (University Medical Center)
WHO	World Health Organisation

B. References

- Akincigil, A., & Matthews, E. B. (2017). National Rates and Patterns of Depression Screening in Primary Care: Results From 2012 and 2013. *Psychiatric Services, 68*(7), 660–666. <https://doi.org/10.1176/appi.ps.201600096>
- American Psychiatric Association. (1952). *Diagnostic and statistical manual of mental disorders*. http://www.wallstreet.com/media/syllabi/fall%202020/graduate/csl6796_e1.pdf
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: Dsm-5* (5. ed.). American Psychiatric Publishing.
- Ashcraft, C., & Fitts, W. H. (1964). Self-concept change in psychotherapy. *Psychotherapy: Theory, Research & Practice, 1*(3), 115–118. <https://doi.org/10.1037/h0088582>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. - *PsycNET*. APA PsycNet. <https://psycnet.apa.org/record/1997-08589-000>
- Bäuerle, A., Steinbach, J., Schweda, A., Beckord, J., Hetkamp, M., Weismüller, B., Kohler, H., Musche, V., Dörrie, N., Teufel, M., & Skoda, E.-M. (2020). Mental Health Burden of the COVID-19 Outbreak in Germany: Predictors of Mental Health Impairment. *Journal of Primary Care & Community Health, 11*, 2150132720953682. <https://doi.org/10.1177/2150132720953682>
- Berto, P., D'Ilario, D., Ruffo, P., Di Virgilio, R., & Rizzo, F. (2000). Depression: Cost-of-illness studies in the international literature, a review. *The Journal of Mental Health Policy and Economics, 3*(1), 3–10. [https://doi.org/10.1002/1099-176x\(200003\)3:1<3::aid-mhp68>3.0.co;2-h](https://doi.org/10.1002/1099-176x(200003)3:1<3::aid-mhp68>3.0.co;2-h)
- Biffu, B. B., Takele, W. W., Guracho, Y. D., & Yehualashet, F. A. (2018). Depression and Its Help Seeking Behaviors: A Systematic Review and Meta-Analysis of Community Survey in Ethiopia. *Depression Research and Treatment, 2018*, 1592596. <https://doi.org/10.1155/2018/1592596>
- Bowes, P., Stevenson, F., Ahluwalia, S., & Murray, E. (2012). 'i need her to be a doctor': Patients' experiences of presenting health information from the internet in GP consultations. *British Journal of General Practice, 62*(604), e732-8. <https://doi.org/10.3399/bjgp12X658250>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>

- Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners* (First published.). SAGE.
- Bretschneider, J., Janitza, S., Jacobi, F., Thom, J., Hapke, U [Ulfert], Kurth, T., & Maske, U. E. (2018). Time trends in depression prevalence and health-related correlates: Results from population-based surveys in Germany 1997-1999 vs. 2009-2012. *BMC Psychiatry*, *18*(1), 394. <https://doi.org/10.1186/s12888-018-1973-7>
- Bromet, E., Andrade, L. H., Hwang, I., Sampson, N. A., Alonso, J., Girolamo, G. de, Graaf, R. de, Demyttenaere, K., Hu, C., Iwata, N., Karam, A. N., Kaur, J., Kostyuchenko, S., Lépine, J.-P., Levinson, D., Matschinger, H., Mora, M. E. M., Browne, M. O., Posada-Villa, J., . . . Kessler, R. C. (2011). Cross-national epidemiology of DSM-IV major depressive episode. *BMC Medicine*, *9*(1), 90. <https://doi.org/10.1186/1741-7015-9-90>
- Buchanan, T. (2002). Online assessment: Desirable or dangerous? *Professional Psychology: Research and Practice*, *33*(2), 148–154. <https://doi.org/10.1037/0735-7028.33.2.148>
- Busch, M. A [M. A.], Maske, U. E [U. E.], Ryl, L., Schlack, R., & Hapke, U [U.] (2013). Prävalenz von depressiver Symptomatik und diagnostizierter Depression bei Erwachsenen in Deutschland: Ergebnisse der Studie zur Gesundheit Erwachsener in Deutschland (DEGS1) [Prevalence of depressive symptoms and diagnosed depression among adults in Germany: results of the German Health Interview and Examination Survey for Adults (DEGS1)]. *Bundesgesundheitsblatt - Gesundheitsforschung - Gesundheitsschutz*, *56*(5-6), 733–739. <https://doi.org/10.1007/s00103-013-1688-3>
- Byrne, P. (2000). Stigma of mental illness and ways of diminishing it. *Advances in Psychiatric Treatment*, *6*(1), 65–72. <https://doi.org/10.1192/apt.6.1.65>
- Canadian Task Force on Preventive Health Care. (2021). *Depression—Clinician Algorithm and FAQ*. <https://canadiantaskforce.ca/tools-resources/depression-2/depression-clinician-algorithm-and-faq/>
- Carvalho, A. F., & McIntyre, R. S. (Eds.). (2017). *Mental disorders in primary care: A guide to their evaluation and management*. Oxford University Press. <https://doi.org/10.1093/med/9780198746638.001.0001>
- Checucci, M., & Brunner, E. (2019). CME: Depression in der Hausarztpraxis [CME: Depression in Primary Care]. *Praxis*, *108*(2), 145–151. <https://doi.org/10.1024/1661-8157/a003168>

- Christensen, H., & Griffiths, K. M. (2002). The prevention of depression using the Internet. *Medical Journal of Australia*, *177*(S7), S122-5. <https://doi.org/10.5694/j.1326-5377.2002.tb04871.x>
- Cline, R. J., & Haynes, K. M. (2001). Consumer health information seeking on the Internet: The state of the art. *Health Education Research*, *16*(6), 671–692. <https://doi.org/10.1093/her/16.6.671>
- Cohrdes, C., Yenikent, S., Wu, J., Ghanem, B., Franco-Salvador, M., & Vogelgesang, F. (2021). Indications of Depressive Symptoms During the COVID-19 Pandemic in Germany: Comparison of National Survey and Twitter Data. *JMIR Mental Health*, *8*(6), e27140. <https://doi.org/10.2196/27140>
- Corrigan, P. (2004). How stigma interferes with mental health care. *American Psychologist*, *59*(7), 614–625. <https://doi.org/10.1037/0003-066X.59.7.614>
- Corrigan, P. W. (2007). How clinical diagnosis might exacerbate the stigma of mental illness. *Social Work*, *52*(1), 31–39. <https://doi.org/10.1093/sw/52.1.31>
- Corrigan, P. W., Druss, B. G., & Perlick, D. A. (2014). The Impact of Mental Illness Stigma on Seeking and Participating in Mental Health Care. *Psychological Science in the Public Interest*, *15*(2), 37–70. <https://doi.org/10.1177/1529100614531398>
- Corrigan, P. W., & Rao, D. (2012). On the self-stigma of mental illness: Stages, disclosure, and strategies for change. *Canadian Journal of Psychiatry. Revue Canadienne De Psychiatrie*, *57*(8), 464–469. <https://doi.org/10.1177/070674371205700804>
- Corrigan, P. W., & Wassel, A. (2008). Understanding and influencing the stigma of mental illness. *Journal of Psychosocial Nursing and Mental Health Services*, *46*(1), 42–48. <https://doi.org/10.3928/02793695-20080101-04>
- Corrigan, P. W., Watson, A. C., & Barr, L. (2006). The Self–Stigma of Mental Illness: Implications for Self–Esteem and Self–Efficacy. *Journal of Social and Clinical Psychology*, *25*(8), 875–884. <https://doi.org/10.1521/jscp.2006.25.8.875>
- Cosgrove, V., Gliddon, E., Berk, L., Grimm, D., Lauder, S., Dodd, S., Berk, M., & Suppes, T. (2017). Online ethics: Where will the interface of mental health and the internet lead us? *International Journal of Bipolar Disorders*, *5*(1), 26. <https://doi.org/10.1186/s40345-017-0095-3>
- Costantini, L., Pasquarella, C., Odone, A., Colucci, M. E., Costanza, A., Serafini, G., Aguglia, A., Belvederi Murri, M., Brakoulias, V., Amore, M., Ghaemi, S. N., & Amerio, A. (2021). Screening for depression in primary care with Patient Health

- Questionnaire-9 (PHQ-9): A systematic review. *Journal of Affective Disorders*, 279, 473–483. <https://doi.org/10.1016/j.jad.2020.09.131>.
- Cox, W. T. L., Abramson, L. Y., Devine, P. G., & Hollon, S. D. (2012). Stereotypes, Prejudice, and Depression: The Integrated Perspective. *Perspectives on Psychological Science*, 7(5), 427–449. <http://www.jstor.org/stable/44280793>
- Cronly, J., Duff, A. J., Riekert, K. A., Perry, I. J., Fitzgerald, A. P., Horgan, A., Lehane, E., Howe, B., Ni Chroinin, M., & Savage, E. (2018). Online versus paper-based screening for depression and anxiety in adults with cystic fibrosis in Ireland: A cross-sectional exploratory study. *BMJ Open*, 8(1), e019305. <https://doi.org/10.1136/bmjopen-2017-019305>
- Crouch, M. A. & Straub, V. (1983). Enhancement of self-esteem in adults. *Family & Community Health*, 6(2), 65–78. <https://doi.org/10.1097/00003727-198306020-00008>
- Dijker, A. J. M., & Koomen, W. (2007). *Stigmatization, tolerance and repair: An integrative psychological analysis of responses to deviance. Studies in emotion and social interaction. Second series.* Cambridge University Press.
<https://doi.org/10.1017/CBO9780511489815>
- Donker, T., van Straten, A., Marks, I., & Cuijpers, P. (2010). Brief self-rated screening for depression on the Internet. *Journal of Affective Disorders*, 122(3), 253–259. <https://doi.org/10.1016/j.jad.2009.07.013>
- Duckworth, K., & Gilbody, S. (2017). Should Google offer an online screening test for depression? *BMJ*, 358, j4144. <https://doi.org/10.1136/bmj.j4144>
- Eichenberg, C., Wolters, C., & Brähler, E. (2013). The internet as a mental health advisor in Germany--results of a national survey. *PloS One*, 8(11), e79206. <https://doi.org/10.1371/journal.pone.0079206>
- Farnood, A., Johnston, B., & Mair, F. S. (2020). A mixed methods systematic review of the effects of patient online self-diagnosing in the 'smart-phone society' on the healthcare professional-patient relationship and medical authority. *BMC Medical Informatics and Decision Making*, 20(1), 253. <https://doi.org/10.1186/s12911-020-01243-6>
- Farrer, L., Leach, L., Griffiths, K. M., Christensen, H., & Jorm, A. F. (2008). Age differences in mental health literacy. *BMC Public Health*, 8, 125. <https://doi.org/10.1186/1471-2458-8-125>
- Felix Torres. (2020). *What Is Depression?* American Psychiatric Association.
<https://www.psychiatry.org/patients-families/depression/what-is-depression>

- Fiksdal, A. S., Kumbamu, A., Jadhav, A. S., Cocos, C., Nelsen, L. A., Pathak, J., & McCormick, J. B. (2014). Evaluating the process of online health information searching: A qualitative approach to exploring consumer perspectives. *Journal of Medical Internet Research*, *16*(10), e224. <https://doi.org/10.2196/jmir.3341>
- Fisher, L. J., & Goldney, R. D. (2003). Differences in community mental health literacy in older and younger Australians. *International Journal of Geriatric Psychiatry*, *18*(1), 33–40. <https://doi.org/10.1002/gps.769>
- Fox, S. (2014, January 15). The social life of health information. *Pew Research Center*. <https://www.pewresearch.org/fact-tank/2014/01/15/the-social-life-of-health-information/>
- Gazzaniga, M. S., Heatherton, T. F., & Halpern, D. F. (2016). *Psychological science* (5. ed.). W.W. Norton & Company Inc.
- Goffman, E. (1986). *Stigma: Notes on the Management of Spoiled Identity*. Touchstone. <https://ebookcentral.proquest.com/lib/gbv/detail.action?docID=5663894>
- Hautzinger, M., & Thies, E. (2009). *Klinische Psychologie: Psychische Störungen kompakt: Mit Online-Materialien* (1. Aufl.). Beltz PVU.
- Horwitz, A. V., & Wakefield, J. C. (2012). *All We Have to Fear: Psychiatry's Transformation of Natural Anxieties into Mental Disorders*. Oxford University Press USA. <http://site.ebrary.com/lib/alltitles/docDetail.action?docID=10560952>
- Houston, T. K., Cooper, L. A., Vu, H. T., Kahn, J., Toser, J., & Ford, D. E. (2001). Screening the public for depression through the Internet. *Psychiatric Services*, *52*(3), 362–367. <https://doi.org/10.1176/appi.ps.52.3.362>
- Hui, A., Wong, P. W.-C., & Fu, K.-W. (2015). Evaluation of an Online Campaign for Promoting Help-Seeking Attitudes for Depression Using a Facebook Advertisement: An Online Randomized Controlled Experiment. *JMIR Mental Health*, *2*(1), e5. <https://doi.org/10.2196/mental.3649>
- Jacobi, F., Höfler, M., Siegert, J., Mack, S., Gerschler, A., Scholl, L., Busch, M. A [Markus A.], Hapke, U [Ulfert], Maske, U., Seiffert, I., Gaebel, W., Maier, W., Wagner, M., Zielasek, J., & Wittchen, H.-U. (2014). Twelve-month prevalence, comorbidity and correlates of mental disorders in Germany: The Mental Health Module of the German Health Interview and Examination Survey for Adults (DEGS1-MH). *International Journal of Methods in Psychiatric Research*, *23*(3), 304–319. <https://doi.org/10.1002/mpr.1439>

- Kendrick, T. (2021). Strategies to reduce use of antidepressants. *British Journal of Clinical Pharmacology*, 87(1), 23–33. <https://doi.org/10.1111/bcp.14475>
- Kessler, R. C., & Bromet, E. J. (2013). The epidemiology of depression across cultures. *Annual Review of Public Health*, 34(1), 119–138. <https://doi.org/10.1146/annurev-publhealth-031912-114409>
- Khan, T. M., Sulaiman, S. A., Hassali, M. A., & Tahir, H. (2009). Attitude toward depression, its complications, prevention and barriers to seeking help among ethnic groups in Penang, Malaysia. *Mental Health in Family Medicine*, 6(4), 219–227.
- Kleine-Budde, K., Müller, R., Kawohl, W., Bramesfeld, A., Moock, J., & Rössler, W. (2013). The cost of depression - a cost analysis from a large database. *Journal of Affective Disorders*, 147(1-3), 137–143. <https://doi.org/10.1016/j.jad.2012.10.024>
- Kuehner, C. (2017). Why is depression more common among women than among men? *The Lancet Psychiatry*, 4(2), 146–158. [https://doi.org/10.1016/S2215-0366\(16\)30263-2](https://doi.org/10.1016/S2215-0366(16)30263-2)
- Latalova, K., Kamaradova, D., & Prasko, J. (2014). Perspectives on perceived stigma and self-stigma in adult male patients with depression. *Neuropsychiatric Disease and Treatment*, 10, 1399–1405. <https://doi.org/10.2147/NDT.S54081>
- Lee, K., Hoti, K., Hughes, J. D., & Emmerton, L. (2014). Dr Google and the consumer: A qualitative study exploring the navigational needs and online health information-seeking behaviors of consumers with chronic health conditions. *Journal of Medical Internet Research*, 16(12), e262. <https://doi.org/10.2196/jmir.3706>
- Link, B. G [B. G.], Struening, E. L., Neese-Todd, S., Asmussen, S., & Phelan, J. C [J. C.] (2001). Stigma as a barrier to recovery: The consequences of stigma for the self-esteem of people with mental illnesses. *Psychiatric Services*, 52(12), 1621–1626. <https://doi.org/10.1176/appi.ps.52.12.1621>
- Link, B. G [Bruce G.], Cullen, F. T., Struening, E., Shrout, P. E., & Dohrenwend, B. P. (1989). A Modified Labeling Theory Approach to Mental Disorders: An Empirical Assessment. *American Sociological Review*, 54(3), 400. <https://doi.org/10.2307/2095613>
- Link, B. G [Bruce G.], & Phelan, J. C [Jo C.] (2001). Conceptualizing Stigma. *Annual Review of Sociology*, 27(1), 363–385. <https://doi.org/10.1146/annurev.soc.27.1.363>
- Magaard, J. L., Seeralan, T., Schulz, H., & Brütt, A. L. (2017). Factors associated with help-seeking behaviour among individuals with major depression: A systematic review. *PloS One*, 12(5), e0176730. <https://doi.org/10.1371/journal.pone.0176730>

- Malhi, G. S., & Mann, J. J. (2018). Depression. *The Lancet*, 392(10161), 2299–2312. [https://doi.org/10.1016/S0140-6736\(18\)31948-2](https://doi.org/10.1016/S0140-6736(18)31948-2)
- Maloušková, K., & Fafejta, M. (2021). The Social Marginalization of People Living with a Mentally Ill Label—Family, Friends, and Work. *Qualitative Sociology Review*, 17(3), 76–89. <https://doi.org/10.18778/1733-8077.17.3.04>
- Maske, U. E., Hapke, U [Ulfert], Riedel-Heller, S. G., Busch, M. A [Markus A.], & Kessler, R. C. (2017). Respondents' report of a clinician-diagnosed depression in health surveys: Comparison with DSM-IV mental disorders in the general adult population in Germany. *BMC Psychiatry*, 17(1), 39. <https://doi.org/10.1186/s12888-017-1203-8>
- MDDUS. (2015). *Data explosion leading to more “worried well”*. MDDUS Protecting professionals. <https://www.mddus.com/resources/resource-library/news-digest/2015/january/data-explosion-leading-to-more-worried-well>
- Mitchell, A. J., Yadegarfar, M., Gill, J., & Stubbs, B. (2016). Case finding and screening clinical utility of the Patient Health Questionnaire (PHQ-9 and PHQ-2) for depression in primary care: A diagnostic meta-analysis of 40 studies. *BJPsych Open*, 2(2), 127–138. <https://doi.org/10.1192/bjpo.bp.115.001685>
- Moock, J. (2014). Support from the Internet for Individuals with Mental Disorders: Advantages and Disadvantages of e-Mental Health Service Delivery. *Frontiers in Public Health*, 2, 65. <https://doi.org/10.3389/fpubh.2014.00065>
- Mullen, S. (2018). Major depressive disorder in children and adolescents. *The Mental Health Clinician*, 8(6), 275–283. <https://doi.org/10.9740/mhc.2018.11.275>
- Mulrow, C. D., Williams, J. W., Gerety, M. B., Ramirez, G., Montiel, O. M., & Kerber, C. (1995). Case-finding instruments for depression in primary care settings. *Annals of Internal Medicine*, 122(12), 913–921. <https://doi.org/10.7326/0003-4819-122-12-199506150-00004>
- NIMH. (2018). *Depression*. The National Institute of Mental Health. https://www.nimh.nih.gov/health/topics/depression#part_2259
- Ogles, B. M., France, C. R., Lunnen, K. M., Bell, M. T., & Goldfarb, M. (1998). Computerized depression screening and awareness. *Community Mental Health Journal*, 34(1), 27–38. <https://doi.org/10.1023/A:1018760128239>
- O'Reilly, M., Dogra, N., Whiteman, N., Hughes, J., Eruyar, S., & Reilly, P. (2018). Is social media bad for mental health and wellbeing? Exploring the perspectives of adolescents.

- Clinical Child Psychology and Psychiatry*, 23(4), 601–613.
<https://doi.org/10.1177/1359104518775154>.
- Ormel, J., Cuijpers, P., Jorm, A., & Schoevers, R. A. (2020). What is needed to eradicate the depression epidemic, and why. *Mental Health & Prevention*, 17, 200177.
<https://doi.org/10.1016/j.mhp.2019.200177>
- Pasman, J. (2011). *The Consequences of Labeling Mental Illnesses on the Self-concept: A Review of the Literature and Future Directions*.
<https://www.google.com/search?client=firefox-b-d&q=The+labeling+theory+of+mental+disorder+%28II%29%3A+The+consequences+of+labeling>.
- Peter, O., Lang, J., Stein, K., Wirth, K., & Jungbauer, J. (2019). “The Diagnosis is not me – But it is a Part of me” – An In-Depth Interview Study on Perspectives of Mentally Ill PeopleMenschen [“The Diagnosis is not me - But it is a Part of me” - An In-Depth Interview Study on Perspectives of Mentally Ill People]. *Psychiatrische Praxis*, 46(1), 27–33. <https://doi.org/10.1055/s-0043-100026>
- Petermann, F., Maercker, A., Lutz, W., & Stangier, U. (2018). *Klinische Psychologie - Grundlagen* (2., überarbeitete Auflage). *Bachelorstudium Psychologie*. Hogrefe.
- Quello, S. B., Brady, K. T., & Sonne, S. C. (2005). Mood disorders and substance use disorder: A complex comorbidity. *Science & Practice Perspectives*, 3(1), 13–21.
<https://doi.org/10.1151/spp053113>
- R. Kohn, S. Saxena, I. Levav, & B. Saraceno (2004). The treatment gap in mental health care. *Undefined*. <https://www.semanticscholar.org/paper/The-treatment-gap-in-mental-health-care.-Kohn-Saxena/f30e0e4a98b4bada55c5d4a0b6c77ef7b4221c79#extracted>
- Rehman, U. S., Evraire, L. E., Karimiha, G., & Goodnight, J. A. (2015). Actor-Partner Effects and the Differential Roles of Depression and Anxiety in Intimate Relationships: A Cross-Sectional and Longitudinal Analysis. *Journal of Clinical Psychology*, 71(7), 715–724. <https://doi.org/10.1002/jclp.22162>
- Reynolds, C. F., & Frank, E. (2016). Us Preventive Services Task Force Recommendation Statement on Screening for Depression in Adults: Not Good Enough. *JAMA Psychiatry*, 73(3), 189–190. <https://doi.org/10.1001/jamapsychiatry.2015.3281>
- Rickwood, D., & Thomas, K. (2012). Conceptual measurement framework for help-seeking for mental health problems. *Psychology Research and Behavior Management*, 5, 173–183. <https://doi.org/10.2147/PRBM.S38707>

- Rickwood, D. J. (2010). Promoting Youth Mental Health through Computer-Mediated Communication. *International Journal of Mental Health Promotion*, 12(3), 32–44. <https://doi.org/10.1080/14623730.2010.9721817>
- RKI. (2017). *12-month prevalence of self-reported medical diagnoses of depression in Germany*. Berlin. Robert Koch Institute. <https://doi.org/10.17886/RKI-GBE-2017-069>
- Roseman, M., Kloda, L. A., Saadat, N., Riehm, K. E., Ickowicz, A., Baltzer, F., Katz, L. Y., Patten, S. B., Rousseau, C., & Thombs, B. D. (2016). Accuracy of Depression Screening Tools to Detect Major Depression in Children and Adolescents: A Systematic Review. *Canadian Journal of Psychiatry. Revue Canadienne De Psychiatrie*, 61(12), 746–757. <https://doi.org/10.1177/0706743716651833>
- Ryan, A., & Wilson, S. (2008). Internet healthcare: Do self-diagnosis sites do more harm than good? *Expert Opinion on Drug Safety*, 7(3), 227–229. <https://doi.org/10.1517/14740338.7.3.227>
- Ryan, G. L., Skinner, C. S., Farrell, D., & Champion, V. L. (2001). Examining the boundaries of tailoring: The utility of tailoring versus targeting mammography interventions for two distinct populations. *Health Education Research*, 16(5), 555–566. <https://doi.org/10.1093/her/16.5.555>
- Scheff, T. J. (1974). The Labelling Theory of Mental Illness. *American Sociological Review*, 39(3), 444. <https://doi.org/10.2307/2094300>
- Siu, A. L., Bibbins-Domingo, K., Grossman, D. C., Baumann, L. C., Davidson, K. W., Ebell, M., García, F. A. R., Gillman, M., Herzstein, J., Kemper, A. R., Krist, A. H., Kurth, A. E., Owens, D. K., Phillips, W. R., Phipps, M. G., & Pignone, M. P. (2016). Screening for Depression in Adults: Us Preventive Services Task Force Recommendation Statement. *JAMA*, 315(4), 380–387. <https://doi.org/10.1001/jama.2015.18392>
- Smit, F., Cuijpers, P., Oostenbrink, J., Batelaan, N., Graaf, R. de, & Beekman, A. (2006). Costs of nine common mental disorders: Implications for curative and preventive psychiatry. *The Journal of Mental Health Policy and Economics*, 9(4), 193–200. <https://pubmed.ncbi.nlm.nih.gov/17200596/>
- Steffen, A., Thom, J., Jacobi, F., Holstiege, J., & Bätzing, J. (2020). *Trends in prevalence of depression in Germany between 2009 and 2017 based on nationwide ambulatory claims data* (Vol. 271). <https://reader.elsevier.com/reader/sd/pii/S0165032719325716?token=E76D63A2AED03732D20411213993C54185EEB22CEB21BCC756CD60F944506FB942E96086C84>

- 4218F3734D79EB120A5D9&originRegion=eu-west-1&originCreation=20210901105245 <https://doi.org/10.1016/j.jad.2020.03.082>
- Stolzenburg, S., Freitag, S., Evans-Lacko, S., Muehlan, H., Schmidt, S., & Schomerus, G. (2017). The Stigma of Mental Illness as a Barrier to Self Labeling as Having a Mental Illness. *Journal of Nervous & Mental Disease*, 205(12), 903–909. <https://doi.org/10.1097/NMD.0000000000000756>
- T. Eng, & D. Gustafson (1999). Wired for health and well-being : the emergence of interactive health communication. *Undefined*. <https://www.semanticscholar.org/paper/Wired-for-health-and-well-being-%3A-the-emergence-of-Eng-Gustafson/e6e1402eccdfa6a1d63459c465a5f7e81a45c33e>
- Tasneem Hassem, & Sumaya Laher. (2021, October 30). *A systematic review of online depression screening tools for use in the South African context | South African Journal of Psychiatry*. South African Journal of Psychiatry.
- Thombs, B. D., Coyne, J. C., Cuijpers, P., Jonge, P. de, Gilbody, S., Ioannidis, J. P. A., Johnson, B. T., Patten, S. B., Turner, E. H., & Ziegelstein, R. C. (2012). Rethinking recommendations for screening for depression in primary care. *CMAJ : Canadian Medical Association Journal = Journal De L'association Medicale Canadienne*, 184(4), 413–418. <https://doi.org/10.1503/cmaj.111035>
- Thombs, B. D., Markham, S., Rice, D. B., & Ziegelstein, R. C. (2021). Does depression screening in primary care improve mental health outcomes? *BMJ*, 374, n1661. <https://doi.org/10.1136/bmj.n1661>.
- Thombs, B. D., & Ziegelstein, R. C. (2014). Does depression screening improve depression outcomes in primary care? *BMJ*, 348, g1253. <https://doi.org/10.1136/bmj.g1253>.
- Trautmann, S., & Beesdo-Baum, K. (2017). The Treatment of Depression in Primary Care. *Deutsches Arzteblatt International*, 114(43), 721–728. <https://doi.org/10.3238/arztebl.2017.0721>
- Trustring Eve, C., & Jager, C. A. de (2014). Piloting and validation of a novel self-administered online cognitive screening tool in normal older persons: The Cognitive Function Test. *International Journal of Geriatric Psychiatry*, 29(2), 198–206. <https://doi.org/10.1002/gps.3993>
- UK National Screening Committee. (2020). *Depression - UK National Screening Committee (UK NSC) - GOV.UK*. <https://view-health-screening-recommendations.service.gov.uk/depression/>

- US Preventive Services Taskforce. (2016). *Recommendation: Depression in Children and Adolescents: Screening* / United States Preventive Services Taskforce.
<https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/depression-in-children-and-adolescents-screening>
- Wallace-Hadrill, S. M. A., & Kamboj, S. K. (2016). The Impact of Perspective Change As a Cognitive Reappraisal Strategy on Affect: A Systematic Review. *Frontiers in Psychology, 7*, 1715. <https://doi.org/10.3389/fpsyg.2016.01715>
- WHO. (2020). *Depression*. <https://www.who.int/news-room/fact-sheets/detail/depression>
- Williams, A., LaRocca, R., Chang, T., Trinh, N.-H., Fava, M., Kvedar, J., & Yeung, A. (2014). Web-based depression screening and psychiatric consultation for college students: A feasibility and acceptability study. *International Journal of Telemedicine and Applications, 2014*, 580786. <https://doi.org/10.1155/2014/580786>
- Wisdom, J. P., & Green, C. A. (2004). "Being in a funk": Teens' efforts to understand their depressive experiences. *Qualitative Health Research, 14*(9), 1227–1238.
<https://doi.org/10.1177/1049732304268657>
- Wittkampf, K. A., van Zwieten, M., Smits, F. T., Schene, A. H., Huyser, J., & van Weert, H. C. (2008). Patients' view on screening for depression in general practice. *Family Practice, 25*(6), 438–444. <https://doi.org/10.1093/fampra/cmn057>
- Young, S., Bramham, J., Gray, K., & Rose, E. (2008). The experience of receiving a diagnosis and treatment of ADHD in adulthood: A qualitative study of clinically referred patients using interpretative phenomenological analysis. *Journal of Attention Disorders, 11*(4), 493–503. <https://doi.org/10.1177/1087054707305172>

C. Appendix

4. Coding scheme

Coding scheme	Häufigkeit
Codesystem	463
Awareness of symptoms	45
Unwissenheit über Beschwerden	15
Riesiges Dunkel was psychische Erkrankungen angeht, Test gute Quelle	2
Viel Unwissen über psychische Erkrankungen	1
Tests geben eine gute Einschätzung, wann Hilfe holen	3
Rückmeldung gibt Erklärung und Anschub	1
Rückmeldung würde Einschätzung geben, ob es dramatisch ist	1
Depressionen ein Tabuthema in Deutschland	2
Verringert Informationsflut des Internets	1
Googelt sich verrückt aber kriegt keine Antwort	1
Wünscht sich mehr Aufklärung Online, außerhalb vom Arzt	1
Hilflos weil unwissend	1
Wusste in Fragebogen nicht was zutrifft	1
Konnte sich durch "Diagnose" erstmals erklären was los ist	1
Gedacht Beschwerden sind normal vor Rückmeldung	1
Weitere Infos geben Klarheit	1
Rückmeldung gibt Sicherheit über Beschwerden	6
Ernst genommen fühlen	5
Angst Arzt versteht einen nicht	1
Unverstanden gefühlt von Ärzten	1
Test zeigt Beschwerden sind doch ernst	1
Gefühl hat Krankheit wird ernst genommen und verstanden	1
Krankheit wird ernst genommen ist ein wichtiges Gefühl	1
Gewissheit über Krankheitsidentität hilfreich	1
Symptoms confirmed/ Explanation	7
Rückmeldung erleichtert weil gibt Klarheit	1
Rückmeldung bestätigt Aussage von anderen	1
Vermutung mein Zustand ist schlimm bestätigt	1

Rückmeldung würde eine Bestätigung geben	1
Rückmeldung zeigt Symptome sind nicht eingebildet	1
Studie war Erkenntnisgewinn - Namen für Beschwerden	1
Rückmeldung hat verdeutlicht dass es wirklich eine neue Episode	1
Certainty whether to seek help	2
Rückmeldung gibt Sicherheit, ob man Hilfe suchen sollte	1
Gibt Sicherheit über Situation	1
Repression of symptoms	6
Beschwerden vor Fragebogen verdrängt	6
Fragen zum Nachdenken angeregt, aber schnell wieder verdrängt	1
Beschwerden erst durch Fragebogen eingestanden	1
Beschwerden hören sich nicht normal an aber runtergespielt	1
Einstieg, um mit Beschwerden zu befassen statt ignorieren	1
Beschwerden vorher ignoriert	1
Seriousness of situation	3
Beschwerden ernster genommen durch Fragebogen	3
Rückmeldung macht Bewusst dass das Problem doch sehr ernst ist	1
Hätte Symptome ernster nehmen sollen schon früher	1
Getting aware of symptoms	6
Wahrnehmung von Belastung durch Studie	1
Studie hat Prozess angestoßen	1
Fragebogen zeigt so ist nicht der Normalzustand	4
Kein Feedback, aber Gefühl die Stimmung sollte so nicht aussehe	1
Beschwerden durch Fragebogen bewusst geworden	1
Bewusstwerdung mir geht es gerade nicht gut	1
Unsicher beim Fragebogen ausfüllen	1
Emotional reactions	22
Ausgelöste Gefühle	22
Erstmal Namen für Krankheit haben ist ein Schock	3
Rückmeldung schockiert weil Name Depression	1
Erleichterung überwiegt Schock	1
Negative Gedanken durch Rückmeldung	1
Fragebogen hat Dankbarkeit ausgelöst	3
Bewusstwerdung von Dankbarkeit	1

Rückmeldung hat nichts ausgelöst	1
Ergebnis verursacht schlucken, will sich drücken vor Ergebnis	1
Fragebogen hat nichts ausgelöst	2
Fragebogen hat Stimmung nicht verschlechtert	1
Schuldig, schlecht, traurig gefühlt nach Test	1
Fragebogen hat verschiedene Gefühle ausgelöst	2
Fragebogen hat viele Emotionen ausgelöst	1
Erleichtert, aber eher neutral gefühlt nach Fragebogen	1
Fragebogen hat Selbstmitleid ausgelöst	1
Fragebogen hat komisches Gefühl ausgelöst	1
Fragebogen hat Sorge genommen - hätte schlimmer sein können	1
Erleichtert aber überwältigend	1
Fragebogen hat emotional gemacht	1
Fragebogen löst Gefühl Traurigkeit aus	1
Rückmeldung hat frustriert	1
Feeling alone	12
Feeling lonely after screening	0
Onlinetest schlecht, weil man wird alleine gelassen	1
Contact person is wished for	9
Müsste mehr an die Hand genommen werden	1
Ansprechpartner mit Rückmeldung gewünscht	1
Ansprechpartner mit Rückmeldung gewünscht	1
Ansprechpartner wird gewünscht, um über Rückmeldung zu sprechen	3
Ansprechpartner, der einen durch die Diagnose führt	1
Kein Ansprechpartner	1
Kein Ansprechpartner	1
No one checks in on you	2
Man wird alleine gelassen mit Rückmeldung	1
Prozess sollte begleitet werden	1
Initiated thoughts and resulting actions	124
Negative Gedanken gegenüber Rückmeldung	22
Gefühl Fragebogen ist eher für Alte und Kranke gedacht	1
Weiß nicht, ob Rückmeldung funktioniert hätte	1
Wollte nicht über Rückmeldung nachdenken	1

keine Rück., der Prozess das selber rauszufinden war wichtig	1
Alle sagen einem man sei depressiv inklusive Test	1
Reinsteigern in Ergebnis von Rückmeldung	1
Rückmeldung per E-Mail ist kritisch	1
Diagnose in Rückmeldung kann demotivierend sein	1
negative Gefühle gegenüber Rückmeldung	1
Jeder Test hat immer gleiches Ergebnis	1
Bedenklich wenn Computer behauptet das Problem zu kennen	1
Rückmeldung kann negative Gefühle auslösen	1
Rückmeldung kann schnell falsch interpretiert werden	1
Rückmeldung kann fehlleitend wirken	1
Auswertung hätte Sorge gebracht	1
Rückmeldung mit Standardantwort kann man auch lassen	1
Hätte nicht zum Arzt gewollt, deswegen keine Rückmeldung	2
Rückmeldung mit Diagnose hätte Kraft genommen	1
Keine Rückmeldung gewünscht	1
Rückmeldung steckt einen in eine Schublade	1
Ergebnis ist negative Nachricht	1
Positive Gedanken gegenüber Rückmeldung	37
Besser als schlechter dass es Tests gibt	1
Studie sehr positiv	1
Fragebogen war wichtiges Anliegen	1
Gefreut, Fragen noch mal zu machen für Vergleich	1
Fragen waren gut und einfach beantwortbar	1
Fragebögen waren interessant, abwechslungsreich, spannend	1
Fragebogen positiv wahrgenommen, weil Beschwerden im Blick	1
Interesse/ Neugier was bei Teilnahme rauskommt	1
Studie hatte positiven Einfluss auf Zustand	1
Fragebogen hat Charakter von Arzt/Psychologen	1
Würde so einen Test nochmal machen für eine Einschätzung	4
Fand es gut etwas zu haben, wo man drauf zurückgreifen konnte	2
Onlinetests als Selbstcheck gut	3
Test hilfreich für Leute, die noch nie eine Diagnose hatten	1
Test praktisch für Menschen, denen es nicht gut geht	1

Test erster Schritt zur Heilung	1
Onlinetest übers Handy abrufbar ist gut	1
Fan von Onlineangeboten	1
Test gut, weil einfach Googeln gibt keine fundierte Antwort	1
Keine negativen Gefühle gegenüber Rückmeldung	1
Rückmeldung ist gut	1
Rückmeldung hat einen Hintergrund gegeben	1
Rückmeldung sehr gut und gut nachvollziehbar	1
Rückmeldung wirklich im Kopf geblieben	1
Rückmeldung ist sehr wichtig und gut	1
Rückmeldung gibt Selbstreflexion	1
Eine Rückmeldung wäre interessant	1
Funktionierender Alltag als Kriterium für Depressionsschwere	1
Rückmeldung trägt zur Selbstakzeptanz bei	1
Beschwerden seit Rückmeldung besser geworden	1
Rückmeldung wäre hilfreich	1
Rückmeldung als sehr hilfreich in Erinnerung	1
Rückmeldung sehr informativ und hat sehr geholfen	1
Ausgelöste Gedanken/ Reflexion über eigenes Wohlbefinden	15
Haltung gegenüber Beschwerden hat sich geändert	1
Studie macht Bewusst für eigenes Glück verantwortlich zu sein	1
Test das Gefühl gegeben, ich bin nicht alleine	2
Dachte beim Fragebogen, dass sie nicht alleine ist	1
Implizit: Hat klares Bild wie schwere Depression aussieht	1
Schon mehrere Tests haben Depressionen gezeigt	1
Fragebogen zur Reflexion genutzt	5
Zur Selbstreflexion	1
Fragebogen zur Reflexion genutzt	1
Positives Denken und reflektieren durch Fragebogen	1
Fragen zur Reflexion genutzt	1
Fragebogen, um in sich reinzuschauen	1
Durch Fragen ganz anderes über Beschwerden gedacht	2
Fragebogen lässt sie nicht anders über Beschwerden denken	1
Stimmungsfragen sind in Erinnerung geblieben	1

Leichter Zugang	18
Kann den Test online ganz oft machen	1
Zeit und Ortsunabhängig	5
von zu Hause möglich	3
Zu jeder Uhrzeit möglich	1
Sehr leicht zugänglich	3
Geringere Hemmschwelle	4
Sich nicht traut zum Psychologen zu gehen	1
Hohe Hemmschwelle sich jemandem anzuvertrauen	1
Zugang ist niederschwellig	1
Test erste Anlaufstelle	1
Rückmeldung motiviert und erleichtert Zugang zur Hilfe	3
Erleichtert Zugang für Leute mit wenig Energie	1
Erleichtert Zugang für Leute mit sprachlicher Barriere	1
Initiated thinking about state of health	0
Fragebogen hat zum Nachdenken angeregt	13
Studie hat Ansatz geliefert, um über Wohlbefinden nachzudenken	1
Fragebogen hat unmittelbar danach zum Nachdenken angeregt	1
Fragebogen hat Gedanken verändert	1
Seit Fragebogen anders über Beschwerden nachgedacht	1
Fragebogen lässt über Gesundheitszustand nachdenken	1
Studie war Auslöser zum Nachdenken	1
Fragebogen hat zum Nachdenken angeregt	1
Fragebogen hat zum Nachdenken angeregt	1
Positiv: Über Sachen nachgedacht	3
Widerspruch: Doch nicht positiv über Sachen nachzudenken	2
Über Sachen nachgedacht über die vorher nicht nachgedacht wurde	1
Screening helps to deal with symptoms	4
Test hilf einem sich mit Thema auseinanderzusetzen	1
Durch Fragebogen mehr mit sich selber beschäftigt	1
Studie dazu beigetragen mit Zustand auseinanderzusetzen	1
Studie dazu beigetragen über Zustand zu sprechen	1
See need to change something & resulting actions	15
Ausgelöste Handlungen/ Hilfesuchverhalten durch R/F	0

Diagnose führt zu Handlungsmotivation	1
Studie hat zum offenen Sprechen bewegt	5
Test hat zum Austausch mit anderen bewegt	1
Rückmeldung ist Anlass über Beschwerden zu sprechen	1
Austausch durch Rückmeldung, aber wenig bestätigend	1
Studie hat beeinflusst offen über Beschwerden zu sprechen	1
Spazieren gegangen und keine Gedanken über R. gemacht	1
Durch Fragebogen Beschwerden genauer beobachtet	1
Rückmeldung könnte Denkanstöße geben	1
Rückmeldung würde motivieren zum Arzt zu gehen/ Hilfe zu suchen	1
Rückmeldung hat Gedanke an Therapie aufgebracht	1
Rückmeldung ist Grund für Therapeutensuche	1
Studie und Andere raten zur Therapie, dann muss man das tun	1
Screenshot von Rückmeldung verschickt	1
Rückmeldung gespeichert, um später noch mal durchzulesen	1
Fear of being labelled	16
Anonym mit eigenen Problemen beschäftigen	7
Test online machen nicht so viel Druck als beim Arzt	1
Will Ergebnis der Rückmeldung nicht teilen	1
Kann selber entscheiden wer das Ergebnis sieht	1
Kann anonym ehrlicher Antworten	1
Wird mit Ergebnis nicht konfrontiert	1
Übers Internet gut, weil kann man erstmal für sich verarbeiten	1
Erstmal mit sich selber auseinandersetzen	1
Angst jetzt zum Therapeuten zu müssen	2
Angst durch Diagnose Tabletten nehmen zu müssen	1
Angst Stempel/Diagnose in der Akte zu haben	2
Wird von Ärzten in eine Schublade gesteckt	1
Angst Diagnose hat Konsequenzen langfristig	1
Anonymität von Diagnose wahren aus Angst vor Stempel in Akte	1
Angst gebrandmarkt zu werden	1
Angst wie Leute mit ihr umgehen könnten wenn sie Diagnose wissen	1

5. Thematic mind map

