How do immigrants in Norway interpret, view, and prefer to cope with symptoms of depression?

A mixed method study

Valeria Markova

Thesis for the degree of Philosophiae Doctor (PhD)
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Abbreviations

ICD-10	International statistical classification of diseases and related health problems
EM	Explanatory Model
BMHS	The behavioral model of health service use
EPHC	Emergency primary health care
GP	General Practitioner
CDHS	Cultural determinants of help-seeking model
CCD-CI	Cross-cultural depression coping inventory

Abstract

Background. Depression is a common mental health problem worldwide. Delays in seeking treatment, misdiagnosis, and non-specific treatments are barriers to receiving appropriate care for people with depression. People with an immigrant background are especially vulnerable and are more likely than the majority population to have unmet mental health care needs.

The overall aim of this thesis was to explore how specific immigrant groups settled in Norway interpret, view, react, and prefer to cope with symptoms of depression. The following research questions were formulated to illuminate the overall aim:

i) What do various immigrant groups settled in Norway perceive to be appropriate coping strategies with depression?

ii) What do various immigrant groups settled in Norway perceive to be appropriate help-seeking sources for depression?

iii) How are immigrants' views of appropriate coping and help-seeking associated with acculturation orientation?

iv) How can immigrant's conceptualization of depression influence their coping and help-seeking preferences?

Methods. The thesis is based on a multiphase mixed-method design, which contains data collected, analyzed, and discussed from both a quantitative and a qualitative approach. The rationale for this approach is that, on the one hand, the quantitative data and results provide a general answer to the research question, while, on the other hand, the analysis of qualitative data refines, extends, and explains the general picture. In the quantitative part, a survey was administered to immigrants from Russia (n=164), Poland (n=127), Pakistan (n=128), Somalia (n=114), and Norwegian students (n=248). The survey consisted of a vignette describing a moderately depressed person based on the criteria found in the 10th version of the International Classification of Disorders. Respondents were asked to provide advice to the vignette character by completing the Cross-Cultural Depression Coping Inventory (CCD-CI) that was developed for the purpose of this thesis and a modified version of the General Help-Seeking

Questionnaire (GHSQ). The immigrant sample also responded to questions about acculturation orientations using the Vancouver Index of Acculturation (VIA). In the qualitative part, focus-group interviews with immigrants from Somalia (n=10) were conducted separately for males and females to examine the relationship between the explanatory models of depression and preferred coping strategies. Videotapes from the focus group interviews were transcribed verbatim into Norwegian. Data were analyzed in accordance with the principles of Template Analysis. **Results**. *Paper 1.* Immigrants from Pakistan and Somalia endorsed more spiritual coping strategies than immigrants from Russia and Poland and the Norwegian student sample. Together with the Russian immigrants, two former groups also endorsed disengagement coping to a greater extent than other groups in the study. The Russian immigrant group endorsed engagement coping as well and to a greater degree than other ethnic groups. Maintenance of origin culture as acculturation orientation was associated with preferences for engagement and spiritual coping. *Paper 2:* Immigrants from Pakistan and Somalia endorsed traditional (e.g., religious leader) and informal help sources (e.g., family) more than immigrants from Russia and Poland, and the Norwegian student sample. There were no ethnic differences in preferences for formal mental help sources (e.g., medical doctor). Maintenance of origin culture as acculturation orientation was associated with preferences for traditional and informal help sources, while adaption to mainstream culture was associated with preferences for semiformal help-seeking sources (e.g., internet forums). *Paper 3.* Focus groups with Somali immigrants showed that depressive symptoms were conceptualized as a problem related to cognition (thoughts) and emotion (e.g., sadness), but not to biological mechanisms. They were thought to result from spiritual possessions, stress from social isolation, and past trauma. Independent of time in exile, the participants showed a strong identification with their ethnic origin and associated values. As participants emphasized the need to obey and follow the viewpoint of elders, fathers, and spiritual leaders, these authorities seemed to be "gatekeepers" for access to mental health services.

Conclusions. The findings reveal similarities and differences in how different ethnic groups settled in Norway prefer to cope with depression and how these differences can

be associated with acculturation orientation. Somali immigrants were the group that differed the most from the Norwegian respondent group. Findings in the qualitative study indicate that conceptualization of depression among the Somali immigrants differs from the Western biomedical model of depression in terms of cause and treatment. Specifically, spiritual coping and traditional health sources seem to be important when coping with depression among Somali immigrants.

Implications: The findings of this thesis can help inform culturally-centered health promotion, interventions, and policies that encourage timely and appropriate use of health care. Ethnic differences in understanding preferences toward help-seeking sources and coping strategies for depression need to be considered in the design and implementation of mental health services. The results highlight that mental health programs for ethnic minorities, especially of Somali descent, should actively involve the ethnic community, including spiritual leaders, in order to reach patients in need and to foster treatment compliance.

Keywords: Depression, immigrant, ethnic, coping, help-seeking, questionnaire, focus-group, multiphase mixed method.

List of publications

Paper 1:

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Paper 3:

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Contents

1. Introduction

Depression is reported to occur in all ethnic groups[1-4] and is today considered one of the most significant causes of disability worldwide[5], with a lifetime prevalence of 6-15%[2]. At its worst, depression can lead to suicide[6]. Although there are recognized, effective treatments for depression[7], fewer than half of those affected worldwide do not receive such treatments[8-10], thus emphasizing the need to improve prevention, diagnosis, and treatment of depression in the population. Such improvements are particularly challenging when dealing with immigrant patients with mental health problems[11, 12].

Mental health problems are consistently reported to be more prevalent among adult immigrants from low-income countries compared to adult Norwegians and the general population[13-15]; specifically, immigrants with a refugee background seem to be vulnerable[15-17]. A meta-analysis showed that the prevalence rate of depression was almost twofold higher among refugees (44%) than among labor migrants and the general population[18]. Previous research has linked the risk of mental health problems to pre-migration and acculturative stress, low socioeconomic status, unemployment, discrimination, social isolation, and the feeling of powerlessness[19, 20].

Despite the higher risk of mental health problems, immigrants from low-income countries to Norway have been found to underutilize mental health services[21-23]. In addition, the immigrant population more frequently report not receiving adequate help from health providers[24, 25], having greater non-adherence to treatment[26], and report significantly higher perceived discrimination[27, 28] compared to the general population.

In part, these disparities have been attributed to structural barriers, such as limited financial and time resources to use professional translators[29]. In addition, immigrants themselves might suffer from a lack of knowledge regarding existing mental health care services[30], and fear not being understood by health professionals[31, 32]. Moreover, immigrants` culturally shaped perceptions of psychological health problems might

influence their expectations about efficient treatment[33, 34] and influence their coping and help-seeking preferences[35-37], and impede contact with public mental health services[13, 36, 38, 39]. For example, previous research has demonstrated that refugees of sub-Saharan origin tend to rely on alternative sources of help rather than seek formal mental health care services[40, 41]. Eritrean asylum seekers in Switzerland considered mental health to be related to faith and preferred spiritual and church-based support for psychological health problems[42]. However, research on how members of different ethnic minority groups specifically with immigrant backgrounds *interpret, view and react to (prefer to cope with) symptoms of depression* is limited[35, 43, 44] and more research, specifically using mixed-method approaches, have been called for both in Norway and internationally[35, 43, 45]. Against this backdrop, the following overarching research question will be examined in this mixed-method research thesis:

How immigrants settled in Norway interpret, view, and react to (prefer to cope with) symptoms of depression?

Importantly, the thesis examines and compares expectations and beliefs about coping with depression held by different immigrant groups settled in Norway.

The results of this thesis can be used to integrate cultural expectations and beliefs into protocols for assessment, counseling, and education.

2. Defining and clarifying the main concepts

Several key concepts need to be defined and discussed to better understand how immigrants to Norway interpret, view, and react to symptoms of depression. Precise definitions of terms such as “depression,” “ethnicity,” “culture,” “coping,” and “help-seeking” are elusive. As social concepts, they have several different meanings, which in addition change over time. With these cautions in mind, the following sections expand upon the general definitions of these terms used in this thesis.

2.1 Depression

Depression is an umbrella term and includes several conditions that manifest themselves differently and with various levels of severity[46]. In this thesis, depression will be defined according to the definition of a depressive episode of the World Health Organization's *International Statistical Classification of Diseases and Related Health Problems* (ICD-10)[46]. Because a considerable share of research is based on the definition in the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5)[47], it should be noted that in the DSM-5 depressive episode is labeled as “major depressive episode.” The ICD-10 system is typically used in European countries, while DSM-5 mainly is used in the US and many other non-European countries. Although certain discrepancies between the criteria exist, the differences are minimal[48]. Both DSM-5 and ICD-10 describe typical (main) depressive symptoms by reduced energy, lowering of mood, and decrease in activity. Table 1 lists additional symptoms of a depressive episode, as described in the ICD-10.

Table 1. Diagnostic criteria of a depressive episode, ICD-10

Depressive episode
a) Reduction of energy, lowering of mood, and decrease in activity
b) Reduced self-esteem and self-confidence
c) Reduced capacity for enjoyment, interest, and concentration
d) Ideas of guilt or worthlessness
e) Pessimistic about the future
f) Sleep disturbance
g) Reduced appetite
h) Thoughts of death and/or suicide

According to the ICD-10, the severity of a depressive episode is classified based on the number of symptoms and the overall clinical presentation. Based on this, the condition is labeled as mild, moderate, or severe. Symptoms should have a duration of at least two weeks. The term *recurrent* may be added if there have been multiple episodes without mania. Mild and moderate depression is the most common types[2, 4], and it is primarily this type of depression that will be referred to in this thesis when the term depression is used.

A mild depressive episode is characterized by the presence of two or three of the symptoms presented in Table 1. The person is usually distressed by these symptoms but will probably be able to continue with most activities. In the case of a moderate depressive episode, four or more of the symptoms listed above are usually present, and the person is likely to have greater difficulties in continuing with ordinary activities.

The validity of diagnostic manuals and the way depression is categorized has been criticized for their inflexible criteria that appear to exclude alternative illness presentations[49, 50]. Moreover, the established guidelines for diagnosis and treatment are

considered less adapted to mental health care in ethnically diverse environments[51]. Previous studies have revealed that especially somatization and symptoms such as feelings of guilt and suicidal tendencies, showed variations of frequency and intensity across ethnic groups[52-54]. Nevertheless, it has been reported that the latent structure of depressive symptoms seems to be similar across cultural groups such as depressed mood, concentration problems, reduced energy, and somatic symptoms such as loss of appetite and sleep difficulties[55]. This latent structure of depression allows for comparison across ethnic groups, even though some cultures regard and emphasis their concepts of depression in different ways[56].

2.2 Disease, illness, and sickness

The concepts of "disease," "illness," and "sickness" are used to capture different aspects of psychological health problems[57, 58]. "Disease" is defined as a psychological health problem that is diagnosed by a medical expert, for example, following standardized and systematic diagnostic codes in the ICD-10. "Illness", in this thesis, is defined as the psychological health problem a person identifies him or herself with, based on self-reported mental or physical symptoms. Although "illness" is defined as subjective, it can be argued that we can assess another person`s illness through his or her verbal reports of introspection[58]. Last, "sickness" is defined as the external and public mode of a psychological health problem and is usually formed by formal structures, such as laws[58]. Accordingly, sickness determines whether a person is entitled to treatment and economical rights, such as sickness benefit, but also whether a person is legally accountable.

The goal of this thesis is to explore *how different immigrant groups settled in Norway understand and prefer to cope with symptoms of depression;* since the wish is to access another person's thoughts about a psychological health problem, it is primarily the illness and illness behavior that will be examined. Illness behavior is defined here as the way individuals experience, perceive, evaluate, and respond to psychological health

problems[59]. According to Kleinman, illness behavior can be said to be the result of an underlying disease process and that this process may be expressed and experienced by different forms of illness behavior[59]. For example, two people may be depressed, but their experience of being depressed may be quite different. One person may have a depressed mood, poor appetite, and behave in a slow and withdrawn manner, while another person, with the same diagnosis, may not experience a depressed mood at all, gain weight, oversleep, and appear anxious. According to the ICD-10 criteria, the very different "illness behaviors" are explained by the presence of the same underlying disease process. How an individual experiences depression can also vary across cultures and different historical epochs[60, 61]. For example, in China, a commonly reported condition is neurasthenia known as "*shenjing shuairuo*" literally translated as "*weakness of the nerves*"[61]. This condition is characterized by a lack of energy and physical complaints such as a sore stomach. Kleinman has suggested that while depression and neurasthenia reflect different illness experiences, they are both products of the same underlying disease processes – depression[59].

2.3 Culture

Culture is something *all* people bring to the clinical setting, the patient as well as the clinician. Culture is a broad term approached from several theoretical perspectives and disciplines[62-65]. In this thesis, the definition proposed by Kagawa Singer and colleagues [66], will be used. According to them, one can differentiate between what culture **is** and what culture **does**. Culture "**is"** understood as "*an internalized and shared schema or framework that is used by group (or subgroup) members as a refracted lens to "see" reality, and in which both the individual and the collective experience the world. This framework is created by, exist in and adapts to the cognitive, emotional and material resources and constraints of the groups' ecological system to ensure the survival and well-being of its members, and to provide individual and communal meaning for and in life*"[66].

Following this definition, culture is not an immutable "thing," but a multidimensional and multi-level process that is dynamic and undergoes constant change and adaptation[67]. The environment to which the person or the group adopts can be both physical, social, and political, and changes that occur in one environment will often influence changes in other environments. Thus, culture encompasses all aspects of the human condition, and the total complexity of culture is impossible to measure in a single study.

As it is impossible to isolate "pure" cultural beliefs and behaviors from the social and economic context in which they occur[68], according to Kagawa Singer and colleagues[66], efforts must be made to explore the influence of culture on health behavior by selecting the most relevant factors for the outcome of focus. According to them, these relevant factors can be identified by asking the following questions: Whom are we going to ask? Who is going to ask them? How and when will the questions be asked? These questions are also relevant for this thesis, and the answers will be outlined in the following sections: Whom are we going to ask (section 6.2 and 6.4), who is going to ask them (section 6.3), and how (section 5 and 6.4), and when will they be asked (section 6.4).

Culture **"does"**: is how culture enables group members to make sense of the world around them through shared beliefs, practices, and explanations. Culture[66] is a source of meaningful symbols that structure experience both implicitly and through explicit models. This knowledge is relatively stable and is used across diverse social contexts. Culture is not only "in the head," but it is also "in the world," embodied in institutions, artifacts, protocols, and practice. According to Kagawa Singer and colleagues[66], it provides a sense of safety, well-being, integrity, and belonging. This also includes rules of social interaction and distribution of power among different groups (e.g., female, male, patient, refugee) that are a part of a cultural population. The members also use these rules or patterned ideas and behaviors as criteria to evaluate and be evaluated as, for example, healthy, useful, and productive members of society[69].

Consequently, when studying how different immigrant groups in Norway understand depression and prefer to cope with it, is it important to identify which aspects or domains of culture are more salient than others in shaping their health behavior and health beliefs. *Domains* are defined here as clusters of cultural constructs such as religion or spirituality, power structure, and gender. According to Kagawa Singer et al.,[66], these clusters tend to be universal in function but culture-specific in their form and relationship. Culture, in that sense, is often fragmented fluid and context-specific [67]. Each population group has developed their unique solutions to their common problems over time and space, such as family structure or treatment of common illnesses such as depression. This way of being is embedded in several levels of existence and is often invisible for group members. However, they may become more aware of them through the move to a new cultural setting with different expected ways of being[66, 70]. According to Kagawa Singer and colleagues due to different expectations, this meeting may create dissonance and misunderstandings. The experience of this dissonance by group members may contribute to inequalities in health outcomes. It is reported to influence both physical consequences such as allostatic load[71], mental health problems like depression[72], and behavioral responses such as avoidance of interaction with the health care system in the country of resettlement[73]. This process will be elaborated more on in section 3.2 about acculturation.

Which cultural domains are most salient and essential to the coping behavior and their relationship with each other will vary in different cultural groups, and the context they live in. According to existing research[74, 75], this information is most accurately obtained from the members of the group of interest, rather than by researchers who are not living the lives of the members of the groups in question. This reasoning has influenced the choice of method for the present thesis outlined in section 6.

2.3.1 Cultural affiliation

Previous studies on immigrant populations have been extensively criticized for lumping immigrants into one “immigrant” category and for not taking account of

participants' mixed cultural identities[43, 66]. For example, Kagawa Singer et al.,[66] points out that it is not uncommon to see scientific reports that compare various ethnic groups, such as "Asian" compared to "European-American" and report differences in health behavior attributed to "culture." Norway is, like the U.S society composed of multiple cultures, but this fact is often overlooked in research, and demographic indicators such as place of birth are used statically and assumed to be universally applicable[43, 66]. Kale and Hjelde[43] suggest that to overcome this limitation, it may be a solution to ask the participants themselves to define their cultural affiliation instead of forcing them into predetermined static categories based on place of birth. That recommendation will be followed in this thesis (see section 6.5.3 for how cultural affiliation was measured in this study).

The term immigrant- and ethnic group will be used interchangeably when referring to specific groups with different cultural affiliations. According to De Vos, "*An **ethnic group** is a self-perceived inclusion of those who hold a common a set of traditions not shared by others with whom they are in contact*"[76]. This term will also be used when the mainstream population (ethnically Norwegian) is referred to in this thesis. The term **immigrant** will be used solely when referring to the groups with immigrant backgrounds (see definition of the term immigrant in section 2.3.2 below).

It is important to note that cultural and ethnic affiliation, as defined here and illustrated in the citation above, may include "folk" religious beliefs and practices, a sense of historical continuity, and a place of origin[76]. Also, the assumption that people who are placed, either by census categories or through self-identification, into the same ethnic group, share the same culture is an over-generalization because not all members grouped in a given category will share the same culture[77]. Many may identify with other social groups to which they feel a stronger cultural tie, such as being Muslim, "*Bergenser*," teenaged, or gay.

2.3.2 Immigrants and refugees

People of foreign origin living in Norway represent heterogeneous groups: They can be distinguished by their social, political, and legal status (e.g., immigrants, refugees or asylum seekers, adoptees, or reunified families)[78]. In this thesis, the definition employed by Statistics Norway well be used[79]. The term **immigrant** is here defined as persons born abroad of two foreign-born parents and four foreign-born grandparents and **Norwegian-born to immigrant parents** are those born in Norway of two parents born abroad and who have four grandparents born abroad.

Berry has suggested distinguishing immigrants along two fundamental dimensions: mobility and voluntariness of contact[80]. The voluntary migration category is characterized by immigrants who leave their home country for reasons such as work. The involuntary migration includes refugees and asylum seekers who leave their home country for reasons such as war and famine. The term **"refugee"** is here defined as persons with legal residence and who have come to Norway for protection, including those who have come through family reunification. **"Asylum seeker"** is defined as those who apply to the authorities for protection and recognition as a refugee, but whose applications still have not been accepted. The latter group will not be included in the samples of this thesis, as well as persons that are **adoptees** born in another country than Norway. The adoptee is a child or an adult who has legally become part of a family other than their biological parents.

3. Theoretical framework: Perspectives on health, illness, and healing

"*One does not become crazy as he wishes, but rather as the culture foresees. At the heart of neurosis or psychosis, through which we try to escape, culture still tells us what personality of substitution we should adopt*"[81]

In this part, the main theoretical framework of this thesis will be outlined. A literature review will follow in chapter 4.

3.1 Explanatory models of illness framework

Several different frameworks have been proposed on how to structure and understand different illness beliefs[33, 35, 59, 82, 83]. The illness explanatory model framework proposed by Kleinman and colleagues is one of the most influential[59, 84-86]. This framework is based on two approaches: First, social construction theories, particularly ideas about how reality is socially constructed; and second, schemas from cognitive psychology and medical anthropology, primarily studies of illness experience[87]. Kleinman[59] defines explanatory models (EM) as explanations or understandings of episodes of illness and their treatment framed within the context of the cultural beliefs and norms of the given society and employed by all those engaged in clinical processes. An individual's EM are those shaped by sociocultural contexts, and may, therefore, vary across time and living environments[59]. Demographic characteristics and life experiences also influence EM[38]. EM is consequently not static entities or single constructs but can be fluid, multilayered, and complex constructs that may change as a result of new knowledge and experience[88]. For example, immigrants who become familiar with new cultural practices and beliefs and who meet various stressful life events during migration might both keep the common EM from their culture of origin and find new ways of explaining the illness based on their contract with the new culture[89, 90].

EMs influence decisions about coping and choices of treatment[35, 73]. EMs can vary within an individual, between different individuals and between groups of individuals[91]. In addition, the same individual can hold several EMs at the same time, and different EMs may motivate different coping and help-seeking behavior[35, 75]. For example, a person may describe the causes of depression as both spiritual and biological, and pursue treatment from both a religious leader and a medical professional[35, 92]. According to Kleinman, the choice of coping and help-seeking strategies is made based on the interaction within the local health care system. This system is roughly the same across cultural boundaries, while the content varies with the context it operates within. The system consists of three "social sectors" within which illness is experienced and reacted to; Kleinman referred to them as the popular sector, the folk sector, and the professional sector[93].

The popular sector of health care is the largest sector and contains several levels, such as individual, family, social network, and community beliefs. According to Kleinman, the popular sector is the lay and non-professional sector. It is in this sector, illness is defined, and most of the coping strategies are chosen[35, 36, 73]. According to Kleinman, when people resort to professional or folk practitioners, their choices are anchored in the culture (the cognitive and value orientations) of the popular sector. **The professional sector** consists of professional, scientific medicine, e.g., biomedical understanding of illness[94] (see definition below), and may also include professionalized healing traditions such as Chinese or Ayurvedic medicine. The last, **the folk sector,** consists of nonprofessional, non-bureaucratic specialists, and folk medicine such as shamanism and herbalism. According to Kleinman, this sector shades into the lay sector and may and may not overlap with the professional sector in particular local settings.

The popular, professional, and folk sectors operate with equal or different EMs of depression[35, 36]. Various EMs of depression have been described in the literature[35, 36]. Two of the best known are probably the biomedical and situational models of

depression. The "*Biomedical*" model of depression is a disease model that emphasizes the root of the disorder in heredity, anatomy, and disease processes[94]. Although there is a move towards educating health professionals in the "*biopsychosocial*" model, which recognizes behavioral, physical, and psychological aspects of illness[95], the biomedical model of illness is still a common EM in mental health[96, 97]. The "*Situational*" model of depression is a model that describes psychological distress in the context of social and interpersonal situations and has been reported to be common in traditional societies[92, 98], and among minority communities in Western countries[36]. Several studies have reported that laypeople tend to be more satisfied with treatment when the professional and the layperson share the same EM about the illness[75, 99, 100]. Thus, exploring the variation in EMs can help increase understanding of coping and help-seeking behavior as well as developing culturally appropriate therapy[98, 100, 101]. According to Kleinman[59], if a professional wants to explore and achieve a better understanding of the different EMs of depression and the subjective experience of illness a layperson holds, one should ask them the following questions; "*what is wrong*?", "*what can help*?" and "*who can intervene*?". This approach will be adopted in this thesis, which is explained in more detail in section 6.5.4. Research on cultural differences in the understanding of depression will be outlined in more detail in section 4.1.1

3.2 Acculturation

Migration to a new country can lead to conflicts between the established sense of self and ways of living and the new cultural reality. The process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their members is often referred to as "acculturation." Acculturation is a complex phenomenon and has been defined in multiple ways[80, 102]. Most definitions imply meeting of cultures and the subsequent change in groups or individuals[103]. In this thesis, I will use the definition of acculturation proposed by Redfield, Linton, and Herskovits[104]: "*those phenomena which result when groups of individuals sharing*

different cultures come into continuous first-hand contact, with subsequent changes in the original culture patterns of either or both groups" (p.149). However, it should be noted that changes arising from intercultural contact occur not only at the cultural group level (in all groups in contact) but also at the individual psychological level[103]. The changes at the cultural group level involve changes in social structures and institutions, e.g., the adaptation of health services. The changes at the individual psychological level include changes in people`s self-identity, including behavior, attitudes, and values[105].

Several studies have found that changes in behavior, attitudes, and values may occur independently of one another, and at different rates and in different directions[106-108]. The changes in behavior may, for example, be changes in social interactions (e.g., understanding social norms) and daily activity habits (e.g., health practices and recreational preferences), while changes in values may include, for example, changes in belief systems[109]. Kim, Atkinson, and Yang[106] found evidence that while *behavioral acculturation*, for example, food preferences, occurred relatively quickly and differed across the first three generations of Asian Americans since immigration, *acculturation of values* happened at a slower rate and did not vary significantly across the first three generations[106].

How and how fast psychological changes happen at the individual level will often depend on the changes at the cultural level[80]. Accurately describing and interpreting how different immigrant groups settled in Norway understand and choose to cope with depression requires an understanding of the cultural context in Norway[110]. According to Berry[111], this can best be achieved by combining both the quantitative (positivist approach) and qualitative (the constructivist) perspectives. According to him, the positivist approach will allow for a comparison between groups, while the more qualitative traditions from for example medical anthropology (e.g., explanatory model approach) will allow for the interpretation of the meanings people assign to their coping preferences and choices ('thick description';[65]). This recommendation will be followed in this thesis (see section 6).

3.2.1 Acculturation orientations

Since not everyone seeks to acculturate in the same way, it is important to conceptualize different ways of acculturation. Historically, the conceptualization of acculturation has adhered to the unidimensional or bidimensional framework[105, 112]. The unidimensional model appeared in the anthropological literature in the 1960s. This framework implies that rejection of one`s heritage culture was considered to be an unavoidable consequence of adopting ways of living (values and behaviors) of the mainstream culture, while strong identification with one`s culture of heritage was equated with a rejection of mainstream culture[113, 114]. Today, accumulated research suggests that bidimensional models (often referred to as a two-directional process) might be superior to unidimensional ones[105, 108, 110]. This understanding of acculturation will be applied in the present thesis. Operationally defined, bidimensional acculturation is the degree to which one identifies with the behavior, beliefs, and values of the *heritage* (cultural maintenance) and the predominant *mainstream* cultural groups (culture adoption) where the two dimensions are considered to be orthogonal to each other[105]. The bidimensional model conceptualizes the adoption of the dominant culture and maintaining one`s heritage culture as independent processes, making it possible to retain both the original culture and adopt a new culture at the same time[103, 105, 109, 115]. This means that immigrants can maintain or neglect their home culture while simultaneously participating and acquiring values, attitudes and behaviors related to the culture of settlement[110]. According to Berry, the juncture of these two dimensions can create four acculturation strategies[110, 116] integration (strong orientation to both cultures), assimilation (stronger orientation to the host culture, and less orientation to the original culture), separation (stronger orientation to the culture of origin and less orientation to the host culture) and marginalization (weak orientation to both cultures). However, this typology has been challenged and continues to be a matter of lively debate[117] and will, therefore not be used in this thesis.

Although there is a consensus within the literature that acculturation brings about changes in both groups through contact[118, 119], it is the non-dominant group that usually changes the most. In addition, the non-dominant groups and their members cannot always choose how they want to engage in intercultural relations and acculturation. How this process evolves for an individual is influenced by several factors[120], one of the most significant is the constraints imposed by the mainstream society (the dominant group), which may enforce certain kinds of relations or limit the choices of the immigrant (the non-dominant groups). This can be demonstrated in the case of integration (strong orientation to both cultures). For integration to happen, the immigrant group needs to accept the basic laws and norms of the larger society, while at the same time maintaining the values of their group. According to Berry[121], integration can only be freely chosen and successfully pursued by immigrant groups when the mainstream society is inclusive in its orientation towards cultural diversity. Being inclusive requires a widespread acceptance of the value of cultural diversity to society (i.e., the presence of a positive multicultural ideology) and low levels of prejudice (i.e., minimal discrimination). In health care, this implies that the host society needs to be prepared to adapt national institutions (e.g., hospitals) to be able to meet the needs of all groups living in a plural society.

3.3 Coping

Depression can be seen as a mental state of helplessness and hopelessness due to a lack of perceived ability to cope[122]. Despite the popularity of and extensive research on the coping processes in the past four decades, there is no consensus on its definition. Accordingly, various definitions and theoretical positions regarding coping have been proposed[123-128]. One of the most extensively used in mental health research[124, 129] and the one used in this thesis is a definition by Lazarus and Folkman[130] who state that coping can be defined as: "*Constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person*". This approach to coping, also known as a

transactional approach, is inherently bidirectional, reflecting a transaction between an individual and his or her environment[130]. In addition, this definition covers several aspects of coping, explicitly: (a) coping is process-oriented, not an outcome or a trait; (b) the act of coping is not to be confused with the outcome of coping; (c) coping involves all efforts to manage a challenging or stressful situation, and is not equated with mastery; and (d) it requires cognitive appraisal of the person`s environment and resources, thus excludes automatized behaviors and limits coping to psychological stress[130, 131].

An individual`s appraisal of the situation can be understood as the cognitive process through which meaning is ascribed to stimuli/events. This appraisal process determines the stress associated with the stimuli/events and the behaviors employed to cope with it[130, 132, 133]. That means that the appraisal of the event as stressful, rather than the event itself, is essential for which coping strategy is chosen. According to Lazarus [133], the appraisal process integrates both individual factors such as internalized cultural background (e.g., their values and illness EM), and environmental factors (e.g., the possibility to visit a doctor). In this thesis, coping strategies will refer to the behavior the individual prefers, is considering using or is using in a health-threatening situation such as depression.

When encountering a potential health threat such as depression, it is appraised in several steps (see an outline of the coping process in Figure 1)[130, 134].

a) **"*Primary appraisal,"*** where the individual cognitively and emotionally assesses the health threat, e.g., depressive symptoms, its severity, and its relevance to his or her life[130]. The appraisal at this level is shaped by the individual`s EMs of illness[74], values, and goals. In addition, according to Leventhal and colleagues[135], cognitive appraisal of the health threat is also based on the person`s understanding and interpretation of the threat`s timeline, personal and social resources, and perceived consequences.

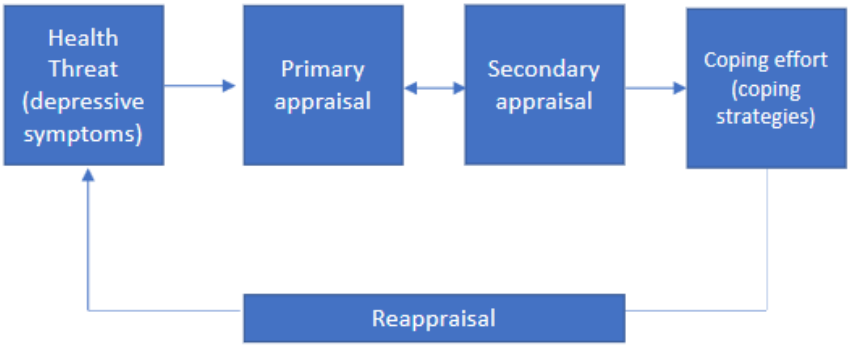
b) **"Secondary appraisal"** is triggered when a specific transaction is deemed to be stressful; here, the individual assesses what can be done to manage the stressor and its

resultant distress. Secondary appraisal involves a cognitive process through which the person identifies and evaluates their resources including their coping style, for example how the individual has coped with a similar situation in the past, situational variables, for example, social support[136], and coping resources, for example, personal belief in the ability to cope.

The interaction between the primary and secondary appraisal defines the coping actions enacted to address the health threat. When a situation is appraised as health-threatening (primary appraisal) and requires coping effort to manage the situation (secondary appraisal), coping effort is enacted, and the person selects one or more coping strategies[130, 137]. It is important to note that primary and secondary appraisals are equally important in the process of coping; they form a feedback loop and do not necessarily occur sequentially[138].

c) Reappraisal. Once one or several coping strategies have been tried out, accompanied by new information from the environment[136], the threat may be reappraised, and the strategy may be changed or adapted if the desired outcome was not achieved. In that way, "Reappraisal" may influence stress and emotions and give new meaning[130].

Figure 1. An adapted outline of the coping process as proposed by Leventhal, Folkman and Lazarus[130, 134]



3.3.1 Coping strategies

People may use a wide range of cognitive and behavioral coping strategies to manage their mental health symptoms; for example, some of the strategies reported to be healthy are doing creative activities, physical exercise, and being spiritually oriented[139] Several clusters of coping strategies have been proposed[124, 126]. One of the best known is the distinction proposed by Lazarus and Folkman[130], who proposed that coping strategies can be divided into two main clusters. "*Problem-focused coping*" is aimed at solving the problem or changing the situation, for example, seeking social support whereas "*emotion-focused coping*" is aimed at regulating the emotions activated by the stressful encounters, i.e., by avoiding thinking about the threat. Even though this dual coping taxonomy "*provides a useful way of talking about many kinds of coping in broad brushstrokes*"[140], this taxonomy has also been criticized for theoretical and methodological flaws[124, 126, 141]. A review by Skinner, Edge, Altman, and Sherwood[126] recommended not using this coping classification and emphasized that coping taxonomies need to be conceptually clear, mutually exclusive, and exhaustive. Current literature on coping also highlights limitations on how coping strategies are measured[124]. Frequently used coping scales have been criticized for both being broad and general, and not suitable to assess coping with specific mental illnesses such as depression. For example, one study reported that about 20% (range: 2.1-83.9%) of the widely used Ways of Coping Questionnaire (WCQ)[142] items were not applicable to the stressors described by the individual participant[143]. In addition, existing coping scales have been criticized for overlooking the cultural context in which coping occurs[70, 144-146]. To be able to answer our broad research question (see section 1) and to fill this gap in the literature, this thesis will introduce a new scale designed to capture how ethnic minorities settled in Norway prefer to cope with depression (see section 6).

3.4 Help-seeking

Unrau and Grinell[147] defined help-seeking as "*behaviors involve a request for assistance from informal supports or formalized services for the purpose of resolving emotional, behavioral, or health problems*." This definition will be followed in this thesis. According to this definition, help-seeking preferences, intentions, and behavior are embedded within informal and formal networks, and these network interactions impact problem identification and decisions about what should be done about them[148].

In terms of mental health, it is generally agreed that formal help involves support from trained mental health or other health professionals (e.g., medical doctor or psychologist) and from informal help-sources (e.g., friends and family)[149-151]. However, following a systematic review, Rickwood and Thomas [149] noted that this kind of classification is not absolute since different countries have different health and social care systems. For example, traditional healers often grouped as an informal or a semiformal help-source in the Western countries could be a critical source of formal health care in traditional indigenous population groups.

Several theoretical models have been utilized to understand and explain individuals` preferences in health behavior[120]. One of the most acknowledged models is the Behavioral Model of Health Services Use (BMHS), which was developed in 1968 by the US medical sociologist and health services researcher Ronald M. Andersen[152-156]. According to the BMHS model[153], healthcare behavior can be explained by the collective influence of environmental and personal factors, needs (objective and perceived), and enabling resources (Figure 2). The BMHS model has been widely used to interpret the utilization of health services, including mental health services[156]. However, this model is also useful in understanding help-seeking preferences in general[149]. In their most recent explication of the model, Andersen and Davidson[153] described the major components of the model as follows:

1) Predisposing factors include individuals` demographic characteristics such as age, sex, education, and ethnicity[45].

2) Enabling factors include financing and organizational factors. There are also aspects of social structure that contribute to health service need due to, for example, the status of their group membership, as well as available resources in the physical environment that lead an individual to be able to make healthy life choices.

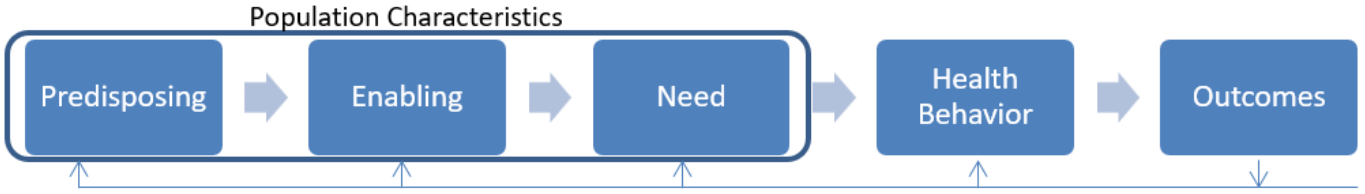
3) Need factors include both perceived need (i.e., self-perceived need) and objective health situation (i.e., professional evaluation). The perceived need has been helpful in explaining help-seeking intentions and behavior and medical advice adherence, whereas objective appraisals are more important with regards to the amount and type of treatment a patient needs after seeing a healthcare provider[152].

4) Health behavior includes coping behavior such as self-care, adherence to medical regimes and exercise, and the use of health services such as formal and traditional sources of care[152].

5) Outcomes of the behavioral model of health services use surpass the traditional vs. vulnerable dichotomy and include both perceived and objective health status, satisfaction with care, as well as comprehensiveness.

The model suggests that health behaviors are continuously re-defined by experience and influence all health outcomes. Andersen's model was expanded by Gelberg, Andersen, and Leake[157] for vulnerable populations as they added a "vulnerable domain" to the model. The vulnerable domain includes factors relevant to understanding help-seeking behavior among the immigrant population, for example, acculturation orientation (predisposing factor) and the ability to negotiate system (enabling factors). An adaptation of this model will be used in the thesis to understand and explain preferences in health-seeking behavior among various ethnic groups settled in Norway. In this thesis, the influence of enabling and predisposing factors on health behaviors will preliminary be explored (see section 6). The entire model is presented to demonstrate the complexity of help-seeking behavior.

Figure 2. The adopted version of the behavioral model for vulnerable populations[157]



Traditional Domains

Demographics
- Age
- Gender

Health Beliefs
- Attitude towards illness
- Knowledge about disease

Social structure
- Ethnicity
- Education
- Social network
- Religion

Vulnerable Domains

Social structure
- Country of birth
- Acculturation

Past characteristics
- Living conditions
- Length of time in the community
- Psychological recourses

Personal/Family Resources
- Income
- Social support
- Previous barriers to care

Community resources
- Residence
- Religion
- Health service resources

Personal/Family Resources
- Competing needs
- Self-help skills
- Ability to negotiate system
- Transportation

Community resources
- Social services resources

Perceived Health
- General population
- Health conditions

Evaluated health
- General population health conditions

Perceived Health
- Vulnerable population health condition

Evaluated health
- Vulnerable population health condition (e.g., evaluated by health professional based on assumptions about the vulnerable group)

Personal health practices
- Various coping strategies
- Diet
- Exercise
- Self-care
- Prayer

Use of health services
- Ambulatory care
- Inpatient care
- Alternative healthcare

Personal Health Practices
- Food sources
- Hygiene

Traditional/ Vulnerable Domains

Health Status
- Perceived health
- Evaluated health

Satisfaction with Care
- General satisfaction
- Interpersonal aspects
- Financial aspects
- Time spent with clinician
- Comprehensiveness
- Access/ Availability/Convenience

4. Review of relevant research

"It is better to know the patient who has the disease than it is to know the disease which the patient has."
Hippocrates (460 f.Kr.)

The main purpose of this part is to contextualize the current thesis. This part describes the background literature and offers a broad overview of the research field. This part will be divided into five sections; Research on cultural differences among immigrants in the understanding of depression; Depression and coping preferences among immigrants; Depression, and help-seeking preferences among immigrants; Barriers to healthcare; and Limitations to previous research.

The review of the literature in this thesis can be considered a "traditional review"[158]. This implies that not a specific, formal, and systematic method of review is used, but rather a combination of various ways of searching for the literature and using various sources[159]. The literature presented has been sourced from the electronic databases Medline (Ovid), PsychInfo (Ovid), and also PubMed. In addition, the literature review was complemented by inspecting reference lists of relevant papers. The following keywords were the most central in the literature search: *"depression", "mental illness", "common disorders", "help-seeking", "coping", "ethnic", "immigrant", "cultural differences"*. Creswell[160] suggests that the literature review should meet the following criteria: "*to present results of similar studies, to relate the present study to the ongoing dialogue in the literature, and to provide a framework for comparing the results of a study with other studies*" (p.45). This recommendation will be followed and only very relevant studies (similar studies, meta-analysis, and literature reviews) will be included for contextualizing the present thesis. The following selection criteria will be employed: Focused on work published in the past ten years, although, where important, earlier research that has influenced this work will be mentioned. Where possible, studies conducted in Norway or other Scandinavian countries will be referred

to. However, due to a limited number of relevant studies conducted in Scandinavian countries, studies performed in other Western countries such as the UK and the US were included. Even though this research gives valuable insight into potential differences in coping behavior between different ethnic minority groups, this research may have limited generalizability to the Norwegian context, first, because different ethnic minority groups are settled in Norway than in the US, and second, because the individual choice of, for example, coping strategies are closely linked to the existing external resources such as financial support and accessibility of health services. Caution was therefore applied regarding the generalizability of the findings reported in papers from countries other than Norway. Finally, as it is challenging to distinguish research on depression from research on common mental illnesses and more general mental health problems, these terms were also included in the literature search since research concerning mental health arguably has relevance for this field (because studies on general mental health problems also often include depression, which is the most common mental health problem).

4.1.1 Research on differences among immigrants in the understanding of depression

Extensive research has documented differences among ethnic groups concerning the understanding of depression[35, 36, 59]. These differences also apply to ethnic minorities with immigrant backgrounds[31, 73]. For example, Somali refugees in New Zealand, Australia, and Norway[39, 161, 162] have reported viewing mental health problems, including depression, within the context of changes in family ties as a consequence of resettlement, cultural dislocation, and traumatic pre and post-migration experiences. Different understanding of depression influences which symptoms are presented[163], how these symptoms are understood[38], whether depression is perceived as a mental illness[164], and a wide range of clinically relevant behaviors such as coping[36], help-seeking, or lack thereof [37, 73, 165] and treatment satisfaction [31, 32, 34].

Research has shown that individuals within the same ethnic group might endorse more than one belief about the cause of depression, and consequently have different views about efficient coping strategies, depending on the assumed causes[35, 59, 90].

Based on a systematic literature review, Hagmayer and Engelmann [35] proposed that the assumed causes of depression and coping strategies may be classified into five categories each. Assumed causes were categorized into: (1) depression due to stress (externally caused), (2) personality and psychological causes (e.g., thinking too much), (3) biological causes (e.g., chemical imbalance), (4) supernatural causes (e.g., God's will), and (5) traditional causes (e.g., causes based on non-Western medical theories). Coping strategies were classified into: (1) psychological treatment (e.g., psychotherapy), (2) social support (e.g., support from family and friends), (3) biomedical treatment (e.g., anti-depressant medication), (4) religious (e.g., praying) or supernatural practices, and (5) non-Western medicine or alternative treatment (e.g., yoga, herbs, healers). Hagmayer and Engelmann[35] then compared Western and non-Western cultural groups based on these categorizations and found substantial agreement between different cultural groups concerning the overall rank order of cause categories. On average, situational EMs (see section 3.1. for definition) such as; stress due to environmental factors such as marital problems or job-related issues were considered the most important cause of depression independent of cultural affiliation. This was followed by psychological causes, biological causes, and supernatural causes. Hagmayer and Engelmann[35] note, that even though similarities across cultural groups were found regarding rank order of cause categories, they also found noteworthy variation between the groups examined.

The variation found was substantial with regard to psychological and biological causes for all groups and with regard to supernatural causes for non-Western groups. Those who believed more strongly in supernatural causes endorsed religion as a treatment method more than others. However, the authors note several limitations to their study, for example, all purely qualitative studies were excluded from the review;

consequently, more studies on non-Western ethnic groups were excluded than studies on Western cultural groups. Hagmayer and Engelmann[35] note that the findings reported by the excluded studies also indicate that religious people tend to believe more strongly in supernatural causes (e.g., loss of faith) as a reason for the onset of depression, and endorse respective practices for treatment in both Western and non-Western groups. In addition, according to Hagmayer and Engelmann[35], many of these beliefs seem to be culturally-specific (e.g., the belief in the role of karma held by some ethnic groups). They point out that assumptions about these causes seem to be informed by higher-order theories of causation and illness; however, they conclude that the variations observed may also be due to methodological differences such as differences in the setting in which the study was conducted. According to Hagmayer and Engelmann[35], it is thus important to interpret these results in relation to their context. First, they note that several of the studies included in the systematic literature review were conducted in clinics and on patients receiving biomedical treatment; this may have influenced the participants' views on cause and treatment. Second, some of the studies were conducted in non-Western countries where there may be limited access to psychological treatments, and participants in those studies may, therefore, have little knowledge of biomedical treatment options, which may have influenced the results.

Lay peoples' poor knowledge of psychological health problems and treatment is often described in terms of mental health literacy[166]. "Mental health literacy" is defined here as "*knowledge and beliefs about mental disorders which aid their recognition, management or prevention*"[30]. According to Jorm and colleagues, mental health literacy includes the ability to recognize specific disorders such as depression (as described in diagnostic manuals), knowledge of causes and risk factors of mental illness, and knowledge of effective self-treatments and professional help available[30]. Research has shown that mental health literacy is closely linked to coping and help-seeking preferences among the immigrant population in Europe[14, 16]. For example, based on a systematic literature review, Satinsky and colleagues[16] showed that several significant barriers could explain underutilization of formal mental health services

among refugees in Europe, one of the most central of which is lack of awareness of mental health and mental health services outside of hospitals. Other barriers described were social/cultural taboos and stigmatizing attitudes towards depression and towards help-seeking from mental health services[16, 167, 168]. A study of mental health professionals working with asylum seekers in Switzerland found that 65.4% of the asylum-seeking population with psychiatric disorders feared being stigmatized by their community for attending mental health services[169].

Lindert et al., [14] note that studies on immigrants often overlook factors such as age and level of education. In line with that, Karasz[36] argues that "situational" models of depression (defined in section 3.1) are common even in "advanced" Western countries and argues that such models are often associated with negative attitudes toward professional treatment. For example, surveys of laypeople in Australia, New Zealand, and Switzerland[36, 170, 171] found that informal ways of helping were viewed as more efficacious for depression than therapy provided by mental health professionals, and "lifestyle" remedies were regarded as more efficacious than antidepressants. Preferences toward professional treatment, on the other hand, were positively correlated with the educational level of the respondents. One explanation for these findings may be that biomedical models of depressive illness among educated laypeople represent a form of "acculturation." Such acculturation occurs as a function of the level of exposure to biopsychiatric discourses[36].

The real and perceived causes and symptoms of depression are shaped by cultural norms, cultural values, and attached meaning to self-related concepts and psychological constructs such as guilt, blame, locus of control, and self-esteem. Surrounding factors, such as religion, attach different meanings to such constructs and therefore influence how information is processed and filtered through cognitive schemes. Thus if the environment changes, the EM of illness may also change following the process of acculturation[108]. For example, a study on mental health literacy in Somali women in Norway revealed that 71% of this group living in the capital of

Norway could not obtain, understand and act upon health information and services, and make appropriate health decisions. The exceptions were those who were employed and acculturated (oriented towards the host country), with employment and acculturation being the predictors of adequate health literacy among the study population[172]. The same seems to apply to depression[36, 90]. However, the change in mental health literacy does not mean that the EM of the immigrant population becomes equal to the EMs of the ethnic majority group. Immigrants' EMs are often influenced by both the formal health care in the new country of settlement and the health care practices from the country of origin. As a consequence researchers show that even though EMs change over time, they may continue to diverge significantly from the EMs of the ethnic majority group[90, 107]. For example, Mölsa and colleagues[90] explored how the mental distress EM was changing among Somalis in Finland. They interviewed Somali seniors and Islamic healers and found that the traditional Somali understanding of mental distress both persisted and changed. While conditions understood by the biomedical system as mental disorders were seen by most Somalis participating in the study as spiritual and/or social problems; the presence of new challenges such as the consequence of migration and encounters with Finnish health services also contributed to new ways of talking about and understanding mental distress. This highlights the importance of exploring specific ethnic groups in the context of settlement.

4.1.2 Depression and coping preferences among immigrants

Despite a growing body of research on coping strategies related to depression in general[173-175], there have been limited studies on coping preferences among ethnic minorities in Norway and other Western countries and how coping preferences may be related to immigrants' acculturation orientation[35, 41, 43, 70]. The following section will review the most central findings in the coping literature related to how immigrants prefer to cope with depression.

Earlier studies have reported cultural differences in coping preferences[35, 37, 70, 176]. For example, based on a small-scale study, Erdal and colleagues[37] suggested that

immigrants of non-Western origin differed in coping preferences in case of depression, compared to native-born Norwegians. Differences were particularly salient for spiritual coping; immigrants with non-western origin preferred spiritual coping more than native-born Norwegians. Preferences towards spiritual coping have also been reported among ethnic minorities of non-Western origin in other countries[144, 177-180]. However, research on coping preferences among the specific immigrant groups with different religious orientations such as Orthodox Christian or Catholic Christian from, for example, Eastern European countries is almost nonexistent[43]. It has to be noted that even though some studies make a distinction between spiritual coping and religious coping; where spiritual coping is understood as seeking meaning and purpose in life and includes those who do not believe in God. Religious coping is understood as seeking a specific God or reading holy scriptures[181, 182]. In this thesis, both will be referred to as spiritual coping because religiousness can be understood as a subset or superset of spirituality[182].

In addition to spiritual coping, Erdal and colleagues[37] also found that immigrants and refugees endorsed self-help type interventions such as exercising and resting to a greater extent than native Norwegians did. These findings replicated previous research comparing immigrants to locals in other European countries[183], as well as in the USA[89, 184, 185]. According to the same study by Erdal et al., when immigrants and refugees were compared to health professionals, the differences in coping preferences were even more pronounced. Immigrants and refugees reported preferring spirituality and rest, while health professionals advocated medication and professional treatment. This lack of overlap between laypeople with immigrant backgrounds and professionals may be problematic[31]. More research is necessary to explore whether there is variation within the broad categories of "immigrant" and "refugee" applied in the study by Erdal and colleagues[37] when it comes to coping with depression. Knowledge about this topic is important as agreement on common goals is essential for a good working alliance in therapy situations[75, 99, 100, 186].

4.1.3 Depression, and help-seeking preferences among immigrants

Research shows that immigrants` patterns of health care utilization differ from those of natives[23, 54, 187]. However, there is limited research on preferred and actual help-seeking behavior among different ethnic minority groups in Norway when it comes to depression or other common mental health problems[43].

Extensive research indicates underutilization of mental health services, and lower utilization of General Practitioners (GPs) and specialized mental health services for mental health problems among the immigrant population compared to native Norwegians[22, 23, 168, 188]. Still, immigrants are a heterogeneous group, and the pattern of contact with the formal health services varies between and within ethnic groups settled in Norway. For example, for mental illness, research indicates that immigrants from Eastern Europe (Poles being the largest group) have lower utilization rates compared to other immigrant groups and the native population[21, 54, 188]. African immigrants (Somalis being the largest group) have relatively high utilization rates of somatic hospital services (often related to pregnancy and childbirth). Somali men have comparatively high rates of contact with mental health services when compared to other immigrant groups, while Somali women have remarkably little contact with mental health care services. According to the same study, a low level of contact with mental health services was also observed for children and young people with a Somali background, and the diagnostic information for those with a Somali background was often unspecific[54, 188]. A similar pattern was found for Pakistani immigrants as well as for African immigrants, except for Pakistani men who had a higher utilization rate of mental health services than the Norwegian population[188], while Pakistani youth had relatively low use of mental health services and frequent use of somatic health services[188].

When it comes to seeking help from emergency primary health care (EPHC) services, the immigrant population also seems to approach it significantly less than native

Norwegians, although there is significant variation among immigrant groups. Labor immigrants from Germany and Poland use EPHC considerably less than the native population, while refugees and asylum seekers from Somalia and Iraq use these services more than the native Norwegian population[54]. Sandvik and colleagues[54], argues that this may be due to Poland and Germany being geographically closer to Norway and that these immigrants may go back to their home countries when sick, reflecting the "unhealthy remigration effect." Although that study did not examine visits to EPHC due to mental health problems, Sandvik et al. reason that high contact rates at night and much-undiagnosed pain in this group of EPHC visitors raise the suspicion that mental illness may be the real problem[54].

Recent studies show that there are also differences between refugees and non-refugees from the same country of origin in terms of primary health care service (e.g., GP) use for mental health problems and the purchase of psychotropic medicine (antidepressants and anxiolytics)[15, 189]. People with refugee backgrounds have greater use of primary health services for mental health problems and are more often prescribed and purchase psychotropic medicine (antidepressants and anxiolytics) than non-refugee groups[15]. The findings could indicate that refugees have poorer mental health than non-refugees. Alternatively, refugees may seek more help than non-refugee counterparts. Most refugees settled in Norway undergo a mandatory program of tuition during their two first years in Norway, and these programs include tuition about mental health and the Norwegian health care system[190]. This program is not mandatory for other immigrant groups in Norway; as a consequence, refugees may gain more knowledge about the Norwegian society and the health system than other immigrant groups, which may facilitate help-seeking from formal health services.

When it comes to where various immigrant groups prefer to seek help and how various help-seeking sources may be combined, the research is limited in Norway[43]. Earlier research into preferred help-seeking among various ethnic groups has highlighted the role of the close social networks, and especially the role of family and friends as a

source of comfort[36, 42, 191]. Seeking help from religion and traditional healers has also been reported as an important source of help for people from various ethnic groups[37, 41]. However, the need for more research has been emphasized[35, 43]. To improve ethnic minority patients' access to care, three recent review papers on mental help-seeking behavior[43, 45, 192] highlights that further research should explore beliefs about what constitutes appropriate sources of care and help-seeking for mental health concerns in specific ethnic and religious minority groups.

4.1.4 Barriers to healthcare

According to the BMHS model[153] (outlined in section 3.4), healthcare behavior can be explained by the collective influence of environmental and personal predisposing factors, needs (objective and perceived), and enabling factors. Research has shown that migrants are a heterogeneous group and bring a range of different predisposing, need, and enabling factors with them that impact their coping and help-seeking behavior[45, 156, 193]. In the following, a review will be performed of the most central individual and contextual factors that may influence preferences in health behavior. These factors will be taken into consideration when the results are interpreted in section 8.

Predisposing factors. Various predisposing factors have been reported to have an impact on coping and help-seeking preferences[45]: Beliefs (described in section 3.1), demographic variables, and social factors. Several studies have found demographic variables; gender, age, education level, and relationship status to be associated with coping and help-seeking preferences and behavior[20, 21, 188, 194-197]. For example, according to a recent systematic review seeking help is less frequently employed by men[45]. This sex difference has largely been attributed to the pervasive impact of masculine norms, which emphasize the importance of strength and invulnerability[198]. Lower preferences to seek help for depression have also been observed among those of older age, with a lower education level and those living alone[199]. However, there is a significant variation concerning these factors between ethnic minority groups, and the need for more research is emphasized[24, 43, 200, 201].

Acculturation is also one predisposing factor that researchers have noted influences coping-and help-seeking preferences[44, 107, 146]. For example, Lindert and colleagues used language proficiency as a proxy for acculturation and noted that immigrants who experience greater language barriers had more emergency room visits, less follow-up of treatment appointments, and less satisfaction with health services. However, when it comes to depression and health behaviors, there are few studies on the role of acculturation, and the results are divergent[202, 203].

Need factors. Pre and post-migration stressors are factors recognized to increase the vulnerability of immigrants to mental health problems and may also affect the need for health services and subsequent help-seeking preferences and health service use[14]. Pre-migration stressors that are common among refugees typically comprise war and conflict or stressful meetings that entail uncertainty during visa preparation or asylum processes, the experience of potentially traumatic stressors in childhood (such as poverty)[204], and experience of torture and imprisonment[205]. Post-migration stressors are often worse living conditions than the main population in several areas; work participation in unskilled and low-paid jobs or unemployment[24, 201, 206], poor socioeconomic conditions, experiences of racism, exclusion, identity problems, and experiences of discrimination[19, 43]. There is great variation both between and within ethnic minority groups regarding these factors [201, 207, 208]. In Norway, immigrants from Somalia seem to be particularly vulnerable due to numerous pre and post-migration stressors[24, 162, 209].

Enabling factors. As described in section 3.2.1, the host society has a significant role in influencing ethnic minority groups' acculturation orientation. Even though Norway, like other European countries, attempts to provide equitable health care services to their citizens regardless of their ethnicity, religion, and other characteristics[210, 211], several potential barriers to health care at both provider and structural level have been reported[28, 212, 213]. The barriers at the provider level may be related to provider characteristics such as skills and attitudes for example, related to the use of interpreter

services[29, 214]. The barriers at the structural level are lack of information about services, lack of appropriate services, and service costs[28, 212].

4.1.5 Limitations to previous research

Although the research discussed above has identified some important findings and limitations, several additional limitations need to be addressed.

Very few studies have been based in Norway[28, 43], with the majority of research taking place in North America[70, 184, 215], and some studies in other Scandinavian[90, 216], and European countries[75]. As noted by Gladden[41] and Hagmayer and Engelmann[35], existing studies have been based on an explorative and qualitative approach, often relying on small samples comprising mostly male migrants.

The few published studies on coping or help-seeking preferences that distinguish between different migrant groups in Norway, which have been identified[191, 217] were purely qualitative. The studies that have explored EMs have also mostly been purely qualitative[162]. There has thus been some but limited focus on or exploration of how various ethnic minority groups in Norway understand depression and what kind of coping and help-seeking preferences they have. Moreover, more research has been called for[43] both in Norway[43], and internationally[35, 41, 45, 192], specifically research relying on a mixed-methods design[35, 43, 45, 218].

Secondly, existing studies on migration health and mental health behavior have been criticized for ethnic lumping (looking at several ethnic groups as one cultural group, e.g., non-western immigrants), differing conceptions of mental health, and a lack of culturally adapted instruments[43, 63]. For example, most instruments deal with coping in general terms and ignore specific coping strategies that may be relevant for coping with depression[124]. There is also limited knowledge of where the immigrant population prefers to seek help and their preferred coping strategies[43, 207, 219]. Several recent review

studies also underline the need for research on beliefs about, barriers to, and perceived needs for treatment[16, 45].

With respect to Norway, the research conducted in the field is also, in part, unavailable and has not been published in peer-reviewed journals or anthologies. The majority of these publications consist of dissertations, reports, or articles in non-peer reviewed based Norwegian journals[43, 220]. It should also be noted that the terms "ethnic minority," "refugee," and "immigrant" are used differently in different studies[43, 220].

Finally, a common limitation in many studies of explanatory models has been that the recruitment of samples has been clinically based[35, 162]. This means that participants have been diagnosed with depression or other mental illness, and have consequently been familiar with the Western mental health system. This makes it difficult to conclude how the broader community without exposure to Western mental health services may understand depression.

5. Aim

On this background, the overall aim of this thesis is to explore how specific immigrant groups settled in Norway interpret, view, and react to (prefer to cope with) symptoms of depression. The following research questions were phrased to illuminate the overall aim:

v) *What do various immigrant groups settled in Norway perceive to be appropriate coping strategies with depression?*

vi) *What do various immigrant groups settled in Norway perceive to be appropriate help-seeking sources for depression?*

vii) *How are immigrants' views of appropriate coping and help-seeking associated with acculturation orientation?*

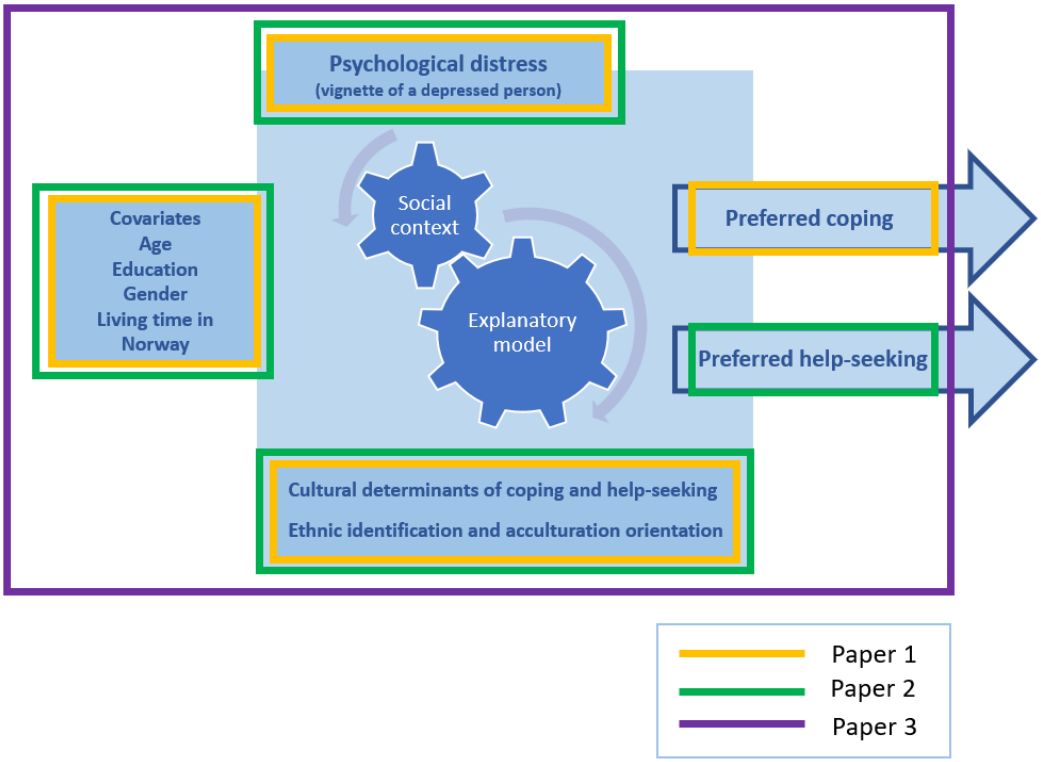
viii) *How can immigrant's conceptualization of depression influence their coping and help-seeking preferences?*

To achieve this aim and answer the research questions asked, a mixed-method thesis was written. In the quantitative part of the thesis, the focus is on cultural differences and the way various immigrants settled in Norway prefer to cope with depression. The respondents in this part of the thesis represent some of the largest immigrant groups in Norway; Polish, Russian, Somali and Pakistani immigrant groups. In the qualitative part of the thesis, the focus is on gaining a deeper understanding of how coping preferences may be linked to differences in explanatory models for depression. The Somali immigrant group in Norway was chosen as the focus group. This group was chosen because it is one of the largest non-Western groups settled in Norway, and is also reported to face numerous barriers in accessing the Norwegian healthcare system [28].

Figure 3 shows the thesis overview. The overview model has been inspired by the cultural determinants of help-seeking (CDHS) model by Saint Arnault and colleagues[73]. The CDHS model was developed to be used across cultures to examine the social and cultural barriers and facilitators of help-seeking. According to the CDHS

model, the help-seeking process is influenced by illness interpretation, expected illness consequences, and social context. In this thesis, I will explore these components through the illness explanatory model defined earlier. I include all the specific variables, factors, and behaviors that are addressed in this thesis: Covariates and cultural determinants are addressed in Paper 1 and Paper 2. Cultural factors are addressed in Paper 3.

Figure 3. Thesis Overview



The overall aim is explored in the following three papers:

Paper 1. How do immigrants from various cultures prefer to cope with depression? Introducing the cross-cultural coping inventory

The need for a domain-specific culturally sensitive coping inventory[124] was the motivation for Paper 1. We developed the Cross-Cultural Depression Coping Inventory scale (CCD-CI), a vignette-based instrument. The paper was divided into two parts. The objective of part one was to design and explore the dimensionality of the instrument. The objective of part two was to perform an initial validation of the instrument. In addition to initial validation, this study also allowed an examination of how various immigrant groups settled in Norway prefer to cope with depression and how such preferences may relate to acculturation orientation.

Paper 2. Immigration, acculturation, and preferred help-seeking sources for depression. Comparison of five ethnic groups

Several studies have found that immigrants are more likely than the majority population to have unmet needs for public mental health services. To improve ethnic minority patients' access to care, three recent review papers on mental help-seeking behavior[43, 45, 192] highlights that further research should explore beliefs about what constitutes appropriate sources of care and help-seeking for mental health concerns in specific ethnic and religious minorities groups. The purpose of paper 2 was to fill this gap and to explore what is viewed as effective help-seeking sources in the case of depression by various immigrant groups settled in Norway. Also, we wanted to explore how and if immigrants' views of appropriate help-seeking are associated with acculturation orientation.

Paper 3. Lay explanatory models of depression and preferred coping strategies among Somali refugees in Norway. A mixed-method study

Specifically, refugees are at high risk for mental health problems due to pre- and post-migration factors as they settle in a new country[43]. To develop efficient health services to meet the needs of immigrant groups, an understanding of how they make sense of and prefer to cope with mental health problems is warranted. The purpose of paper 3 was to investigate lay explanatory models of depression and preferred coping strategies among Somali refugees in Norway.

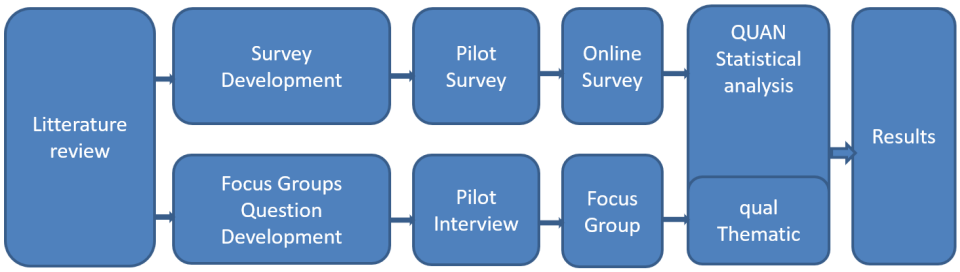
6. Research design

The overall design of the work in this thesis is mixed methods. This means that data have been collected, analyzed, and discussed both from a quantitative and a qualitative approach[221]. The rationale for this approach is that on one hand, the quantitative data and results provide a general picture of the research problem, and on the other hand, the analysis of the collected qualitative data refines, extends, and explains the general picture. The combination of quantitative and qualitative methods thus allows for a more comprehensive understanding of the overarching research question "*How do immigrants in Norway interpret, view and react to (prefer to cope with) symptoms of depression* compared to employing the approaches separately.

There are several types of mixed-method designs[221]. In this thesis, a multiphase design[222] was used (see Figure 4). The multiphase design is a complex design that builds on the basic explanatory design. Multiphase designs occur when researchers or a team of researchers examine a problem or topic through a series of phases or separate studies[221]. The rationale for this approach is that the quantitative data and results provide a general picture of the research problem; more analysis, specifically through qualitative data collection, is needed to refine, extend or explain the general picture.

In this thesis, firstly, a literature review where performed, followed by the development of research instruments (survey and semi-structured interview guide). See section 6.5 on how the instruments were developed. Then quantitative and qualitative data were collected (see section 6.4). The quantitative data explored preferences in help-seeking and coping, and their relationship with demographic variables and acculturation orientation (immigrant group only). The qualitative data gained insight into the relationship between lay explanatory models of depression and preferred coping strategies among Somali refugees.

Figure 4. An overview of the multiphase design used in this study



Note. Overall design in this thesis: QUAN: Quantitative. Qual: Qualitative. The quantitative approach consisted of a survey study (cf. Papers 1, 2 and 3), and the qualitative approach consisted of several focus group interviews (cf. Paper 1).

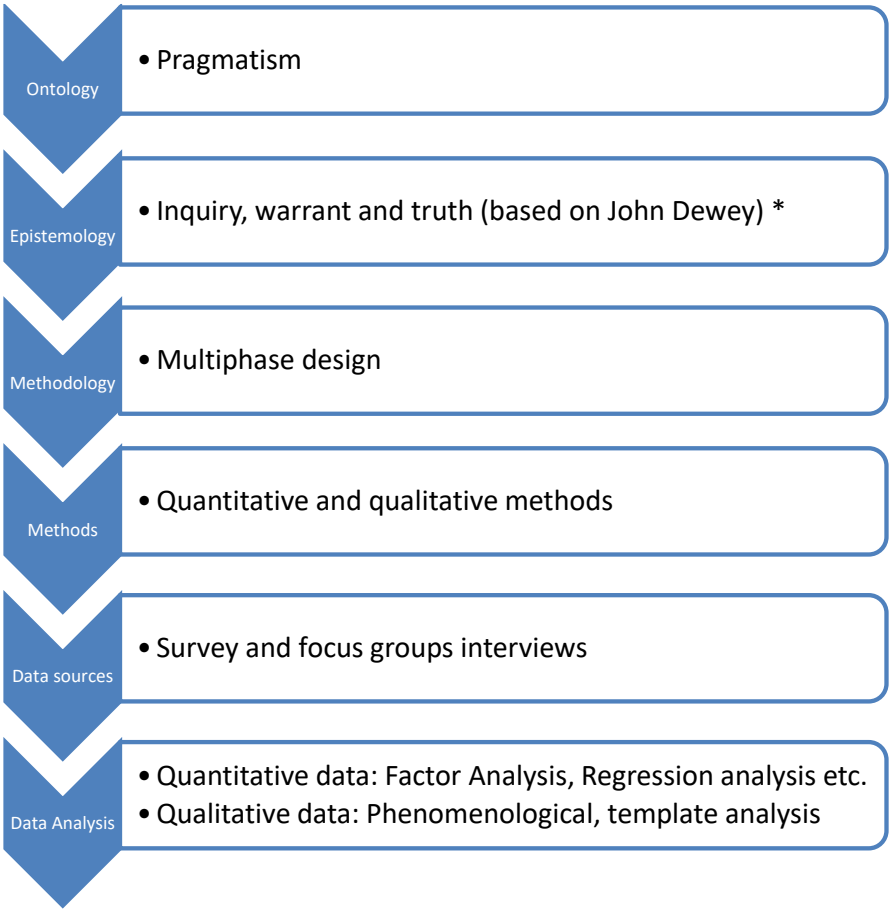
Creswell and Plano Clark conceptualize integration as occurring through linking the methods of data collection and analysis [221]. Linking may occur in several ways through connecting, building, merging, and embedding. In a single line of inquiry, integration may occur through one or more of these approaches. Integration through building occurs when the results from one data collection procedure inform the data collection approach of the following procedures, the later building on the former.

In this thesis, linking occurred through the connection of the findings at the level of the analysis (see Figure 4). The qualitative focus group interviews were conducted simultaneously with the quantitative survey study. The findings were only connected at the level of the analysis. Firstly, the quantitative data were analyzed, followed by the analysis of the qualitative data. The contiguous approach (narrative) was used to integrate the presentation of findings within a single report[223]. The finding on understanding the explanatory models and pathways to mental health care among ethnic minority groups in Norway was reported in Paper 3. The quantitative and qualitative findings were reported in different sections. The findings on coping and help-seeking preferences among ethnic minorities are reported in Paper 1 and 2.

Milles and Francis have suggested that to ensure a strong design, "*researchers must choose a research paradigm that is congruent with their beliefs about the nature of reality*"[224]. Klenke [225] points out that each paradigm makes an assumption about the

nature of reality or ontology, how knowledge is constructed or epistemology, and assumes that the values (axiology) a researcher brings to the selection of method, participants, data collection, analysis and interpretation influence the research process. The appropriate paradigmatic foundation of this project is that of Creswell and Plano Clark[221], stating that pragmatism can be an umbrella paradigm for mixed methods (see Figure 5).

Figure 5. *Illustrates the coherence in the project by aligning the main components that make up the overall project: ontology, epistemology, methodology, methods, and data analysis.*



Note: see Johnson, de Waal [226]

The philosophy of pragmatism advanced the notion that the consequences are more important than the process and, therefore, that 'the end justifies the means.' It advocates eclecticism and '*a needs-based or contingency approach to research method and concept selection*' [227] so that researchers are free to determine what works to answer the research questions. Pragmatism rejects either-or view on constructivism and positivism rather than embraces both points of view. It believes that researchers may be both objective and subjective in epistemological orientation throughout answering the research question. On the axiological ground, pragmatists believe that values play a large role in conducting research and drawing conclusions from their studies. Researchers' stance will be described in more detail in section 6.3. The theoretical approach of the proposed thesis is based on a conceptual understanding that scientific knowledge is culturally "*situated*" [228]. Culturally situated knowledge implies that knowledge must always be interpreted in relation to society and the context in which it is created. The context of the thesis will, therefore, be described in more detail in section 6.2.

6.1 The combined etic – emic approach

As described in section 3.1, several researchers have found differences in the explanatory models of the layperson and the professional, and this has been conceptualized and differentiated as etic and emic perspectives of illness, respectively[31]. The concepts etic and emic were first introduced by the linguistic anthropologist Kenneth Pike[229]. Etic perspectives employ a "physician" perspective and reflect categories and explanations that have meaning for the scientific community (the observer point of view), whereas emic perspectives focus on the intrinsic cultural distinctions and elicit laypersons' views and conceptualizations about the illness (the subject point of view). These include beliefs and behaviors concerning etiology, course, the timing of symptoms, the meaning of illness, roles, and expectations. An etic construct follows the epistemological principles deemed appropriate by science. This means that the etic construct has to be precise, replicable, falsifiable, and universal. An

emic construct follows the understandings deemed appropriate by the insider`s culture. This means that informants from various ethnic groups need to agree that the construct matches the characteristics of the shared perception of their culture. Both approaches have been criticized when applied independently[230].

Moreover, it has become more accepted that the integration of these two approaches is essential when exploring cultural differences in understanding illness[231, 232]. The current thesis attempts to integrate these two approaches. Emic knowledge is necessary for an emphatic understanding of another ethnic group. Etic knowledge is necessary for cross-cultural comparisons because this type of comparison requires standard units and categories.

6.2 The context of the study

Over the past 50 years, Norway has shifted from a largely homogenous population to an increasingly ethnically diverse population. In 1970, immigrants comprised less than 2% of the population in Norway and mainly came from other Nordic countries. Nowadays, they represent about 13% of Norway`s population, and the number rises to 17% when including Norwegian-born to immigrant parents[78, 233]. They form a heterogeneous group, coming from different countries and with diverse motives for migration: family reunion (39%), labor (33%), refugee status (22%), and education (5%)[78]. These groups constitute an integral part of Norway`s social, cultural, and economic institutions[78].

This thesis focuses on immigrants in Norway originating from Somalia, Russia, Poland, and Pakistan. The studied groups represent some of the largest immigrant communities in Norway and present different cultural backgrounds, reasons for migration, and how long they have lived in Norway. Furthermore, all of these groups are relevant in an international context since these populations are present in high numbers in countries such as Great Britain, Germany, and the United States[234].

Nowadays, the fastest-growing immigrant groups in Norway are from the former Eastern bloc countries with communist regimes, such as Poland and Russia. On average, they have lived in Norway for less than ten years [233]. Poles make up the largest group of immigrants in Norway and are mainly labor immigrants. Russians constitute the 12th largest group, but this group is one of the fastest-growing ones. They migrate mainly due to family reunification and study. Some of the ethnic Russian immigrants do not come to Norway directly from Russia, but from neighboring former Eastern bloc countries with communist regimes such as Lithuania (second-largest immigrant group in Norway) and are mainly migrant workers. The Somali immigrant group is the 4th largest, and the largest among non-Western, Muslim, and refugee groups. The Pakistani immigrant group is the 9th largest and was one of the first non-Western immigrant groups that came to Norway to meet labor demand. They have been living in Norway since the early 1970s. In 2017, there were as many first-generation immigrants as Norwegian-born to immigrant parents from Pakistan in Norway[233]. Further on, we will discuss the context of mental health services in these countries of origin and Norway as a means of understanding differences in mental health system services and the way they are perceived by various immigrant groups.

6.2.1 The context of origin in Poland, Russia, Somalia, and Pakistan

Poland and Russia are former Eastern bloc countries with the communist regime until 1989 and 1991, respectively. Most of the population in both countries were therefore born while there was a communist regime, and most Russians are born in the former Soviet Union. Despite some cultural and linguistic similarities, these countries have different religions, economic strength, and bonds to other Western-European countries.

Poland. The Polish ethnic group compromises 98% of the population in Poland. Poland is a religiously homogeneous country, where about 90% belong to the Roman Catholic Church[235]. They have a developed education system and provide free university education and a universal health care system for all citizens[236]. The evolution and role

of the formal mental health system in Poland have often been interconnected with the social and political history of Central Europe [237]. It was dismantled during the Second World War, with more than half of Polish psychiatrists losing their lives, and most psychiatric in-patients being killed in the genocide that took place on Polish territory between 1939 and 1945. During the communist regime, rebuilding mental health care was not a priority, and the mentally ill were cared for in the realm of the family. During the 1990s, significant political changes took place in Poland, and the country experienced a major socio-economic transformation[237]. Several mental health care reforms have taken place, improving mental health care services. Compared to other countries in the European Union, however, the mental health care treatments available to people in need are still inadequate, mainly due to poor organization of the existing services and limited funding[238, 239]. Moreover, negative attitudes towards mental illness, discrimination, and stigmatization of the mentally ill are still prevalent[240]. A study from 2012 revealed that many users of mental health services in Poland hid their mental illness as a stigma-coping strategy in their daily interpersonal relations[240]. The highest wave of Polish immigrants to Norway, started when Poland joined the European Union in 2004 The primary motivation for immigration is manual labor due to better wages in Norway. A large number of migrant workers are on short-term contracts, which restricts their access to sick leave and health care in Norway[241].

Russia. Officially, ethnic Russians represent nearly 80% of the population in Russia. The settlement policy during the Soviet era means many Russians were born in nearby countries such as Estonia and Latvia. Russian Orthodoxy is the country's largest religious denotation; however, organized religion was repressed by the Soviet authorities for most of the 20th century, and the non-religious community constitutes a large part of the population. According to Mitrokhin and colleagues[242], only about 0.5% of Russians attend church regularly. Russia, like Poland, is a developed country with an well-functioning education system and universal health care system. Mental health has traditionally been a low priority in the Russian health system[243, 244]. During the Soviet era, the absence of legal control over the actions of psychiatric institutions and

departmental regulation of mental health care contributed to psychiatric abuse[244, 245]. Since then, many Russians have been skeptical towards formal mental health services, and the mentally ill have traditionally been cared for in the realm of the family and by friends[244]. The migration of Russians to Norway started after the disintegration of the Soviet Union and was facilitated by the two countries sharing a border. The primary motivation for immigration is marriage to a Norwegian or studies at a Norwegian University[78].

Somalia. Many ethnic Somalis who migrate to Norway are not born in Somalia. The reason for this is that Somalis are traditionally nomadic herders. In addition, since 1991, hundreds of thousands of Somalis have become refugees because of armed conflicts and live in neighboring countries such as Ethiopia, Kenya, and Djibouti. The Somali people are ethnically and culturally homogeneous. They have a strong "clan" system, a common main language, the "Somali", and an Islamic (Sunni) heritage[246]. The Somali language is the bearer of a strong oral tradition, and due to their storytelling tradition, Somalia is often referred to as "the land of poets"[164]. The language was converted into written form in the 1970s using Latin script. Due to more than two decades of conflict, Somalia has an underdeveloped education system, and the unemployment rate is among the highest in the world. A direct consequence of this is that many Somalis cannot read or write and continue to rely on the oral tradition even today[247]. Education opportunities for Somali children are limited, especially for girls. It is not uncommon for Somalis to speak Arabic, due in part to the religious influence of Islam, as well as French, Italian, English, and Swahili[246, 248]. For Somalis, the family, often in a very extended form, plays a vital role in providing support and social care, and family loyalty is deeply valued. The health system is also underdeveloped and has suffered as a result of recurring wars. There are very few specialized mental health services in Somalia, although sorely needed, and only very severe mental health cases are accepted for treatment. According to a report from the World Health Organization, most of the mental health care in Somalia is support from social networks, and traditional and religious healers (primarily herbalists and faith healers)[249]. Somali

migration to Norway started when the Civil War broke out in 1991 and has been steady ever since.

Pakistan. The Islamic Republic of Pakistan comprises four provinces: Punjab, Sind, North-West Frontier Province, and Baluchistan. The settlement of Pakistanis in Norway is predominantly from the Punjab province[250]. The economy of Pakistan is dependent on agriculture, and a large percentage of the population lives below the poverty line. The main religion is Islam. Family and family honor are important parts of Pakistani culture[251]. Mental health care has been one of the most neglected areas of general health considerations in Pakistan. Mental illness is stigmatized and widely perceived to have supernatural causes[252]. Religion is one of the primary influences dictating explanatory models and the values attached to mental health and mental illness. According to Karim and colleagues[252] mental health is regarded as more important than physical health because "*good mental health leading to ideal conduct (as given by the religion) and is considered the best representation of man being God`s agent on earth*"[252]. The primary mental health support is provided by the close social network and traditional healers along with psychiatric services. There are few trained mental health professionals compared to the population demands, and specialist services are virtually nonexistent[252]. Pakistani migration to Norway started in the late 1960s due to workforce needs in Norway. However, since 1975, immigration has generally only been allowed in family reunification or family establishment cases.

6.2.2 Norwegian health care

The Norwegian governmental healthcare service is a universal and publicly-funded system. The system is divided into municipal and specialist health services. Municipal health services include GPs and emergency health care "*legevakten*". Some municipalities also offer low-threshold psychologist assistance. Specialist mental health services are controlled by the Regional Health Authorities and include outpatients and ambulant services. All legal residents are assigned a GP who acts as a

gatekeeper to specialized services. Most of the patients with mild to moderate depression are treated at the primary care level[253].

6.2.3 The studied population in the context of Norway

To this date, there is no epidemiological research on the prevalence of depressive disorders among specific ethnic groups in Norway[43]. The amount of studies on the prevalence of depression in specific ethnic minority groups in Norway is limited[43, 254]. The existent studies have been based largely on data collected in a survey conducted on living conditions in 2007. They seem to indicate that there is an increased risk of depression in immigrants as compared to native populations in Norway[255, 256]. This is similar to other European countries'[257, 258]. However, when looking at specific immigrant groups, there seems to be variation[24, 200, 201]. Elevated risk was especially observed among visible minorities and immigrants experiencing greater cultural barriers, and pre and post-migration stressors; specifically refugees and immigrants from Africa[15, 27, 259, 260]. Natives and Norwegian-born to immigrant parents do not appear to differ significantly in their risk profile for depression compared to native Norwegians[27]. In general, women tend to present a higher risk for developing depression[197], even though differences are also found between ethnic minority groups[188]. All in all, depressive disorders seem to occur in all ethnic groups in Norway, but vary considerably with the culture of origin, and social context in terms of prevalence, symptomatology, and treatment[23, 43, 54, 188]. This is similar to findings from other countries[1, 4, 63, 261].

6.3 Personal stance

Researchers` perspectives, backgrounds, and identities influence their studies in a number of ways[227, 262, 263]. Researchers have their world views, biases, and values which influence their interpretation of collected data. Thus, to deal with possible researcher bias, it is important to properly make explicit one`s personal stance, experiential knowledge, and assumptions. The objectivity in a partial perspective is about being

transparent and clear about one's position. "*Objectivity turns out to be about a particular and specific embodiment."*[228]

Therefore, the following factors were considered as having a potential impact on the research process and construction of data:

- My identity as an immigrant from Russia
- My identity as a white woman
- My encounters with Russian mental health care
- My professional role as a clinical psychologist
- My experience from working with immigrants, refugees and asylum seekers in different countries (South Africa, Russia, and Norway)
- My experience of working professionally with the Western model of mental health (e.g., strive to apply evidence-based treatment and use of the diagnostic manual ICD-10)

My varied background underscores for me both that "*truths are relative and multiple and subject to redefinition*"[264]. To be a clinical psychologist with an outside cultural background may be advantageous because this can give a fresh view, but disadvantageous because one can misinterpret the phenomena one observes. Also, being an immigrant, I share some experiences with the informants in terms of being an immigrant in a continuous acculturation process to a new culture. During the interviews, this may have helped to gain the trust of the informants and make some more comfortable during the interview. However, not being a visible minority, my professional role as a clinical psychologist and my experience of working professionally with the Western model of mental health may have maintained a power inequality during the interviews. This may also have resulted in me misinterpreting some of the phenomena being observed. For example, I may have misunderstood what kind of role religion play in understanding and treating mental illness. At the same time, being an outsider to some extent may also be beneficial. For instance, informants

may elaborate more on topics they think the researchers do not know much about, which may give richer data for analysis[265].

To improve reflexivity, I kept in contact with resource persons from immigrant communities, for example, my Somali colleagues and friends who served as a mirror by reflecting my response to the process[266]. Also, to promote research validity, several strategies were used: The data were collected both quantitatively and qualitatively, and investigators with different competence and background were involved in reviewing the research process on all stages. Also, representatives of each ethnic group reviewed both the instruments and the results as part of this thesis.

6.4 Participants and procedures

This thesis focuses on the beliefs of laypeople. The high prevalence of depression suggests that many will either experience this disease themselves or among family members. Research indicates that, particularly in communal cultures, the views of family members will strongly influence the choice of help-seeking sources[59, 73]. Thus, the understandings of laypeople may be highly informative about how immigrants experience and cope with depression.

6.4.1 Participants and procedures in the survey study (Papers 1, 2 and 3)

A total of 533 respondents from four ethnic minority groups in Norway took part in the study. In addition, data from Norwegian students (N = 248) were used in parts of the analyses. In total, 79 respondents had more than 30 missing data points (out of 781 responses) and were excluded from all statistical analyses. Hence, the final sample consisted of 702 participants of Norwegian (N =225, females 67%), Russian (N = 151, females 87%), Polish (N = 109, females 77%), Pakistani (N = 117, females 65%), and Somali (N = 100, females 49%) origin.

A purposive sampling technique was chosen to select cases according to the variation on certain characteristics[267]. The main characteristics which were relevant to the recruitment of the immigrant response group in the study included *"belonging to the Somali, Russian, Polish, or Pakistani ethnic group"* and *"the specific age group,"* (only participants over the age of 18 were recruited).

For the Norwegian response group, the participants had to be Norwegian and a student. We tried specifically to recruit students from different faculties and avoid students of medicine or psychology because their professional training could have influenced their view on the vignette. The Norwegian student sample was recruited mainly from higher education institutions in Bergen, Norway. The academic disciplines that were represented as follows; 30% humanities (e.g., pedagogy), 30% social sciences (e.g., economics), 11% natural sciences (e.g., chemistry), 16% medicine (e.g., nursery) and 13% from formal science and professions (e.g., law and real estate management).

The survey was administered and collected on paper (n = 33) or online (n = 500). Only the respondents with Somali origin were offered the possibility to answer the survey on paper. The respondents with Somali origin that answered the survey on paper were recruited in the Somali Café in the city center of Bergen, or at a Norwegian language school, *Nygård Skole* (school), Bergen. As for the online survey, the respondents were mainly recruited through Somali organizations on Facebook (group name: Waayaha Yurub at that time), the largest organization for Somali immigrants in Norway on Facebook. This was a closed group; I needed to apply to the group leader to get access. Previous research has indicated that Facebook is an effective and cost-efficient recruitment method and that Facebook-recruited samples are similarly representative of samples recruited via traditional methods[268]. When that is said, Facebook as a recruitment method was not the first choice. Before that, eight established and recognized Somali organizations in Norway were contacted, several well-known Somalis in the Norwegian community, and two Mosques. Several organizations were

interested; however, after receiving an invitation letter (containing more details about the study) (see appendix 1), no reply was received.

Participants from other immigrant groups were also mainly recruited through social network sites (e.g., Facebook, online immigrant organizations). Data were collected by; the author and three researcher-assistants with origin in Russia, Poland, Pakistan, and Norway, and they were all from the Professional School of Psychology programs at the University of Bergen. A research assistant or the main researcher invited respondents via a private message on a social media platform; if the contacted person agreed to participate, the link to the survey was sent (see Appendix 2 for survey invitation). The participants were invited to participate only once.

The response rate was 33% for the Somali respondent group. Attempts to calculate response rate for all respondents were made; however because the link to the survey was general and not specific to any individuals, some respondents shared the invitation to participate in the survey with their friends, which makes it difficult to count how many got the invitation.

Before recruitment, a power analysis was conducted with G*Power, version 3.0.3[269]. Setting alpha to .05 (two-tailed), power (1-β) to .80 and setting effect sizes (Cohens d) to 0.2 (small), 0.5 (medium) and 0.8 (large) comparing five groups showed that a total of 1200, 200 and 80 subjects are needed, respectively. As about 100 to 200 subjects from each group were recruited, it is possible to detect small-to-medium and large effect sizes. Through this approach, it is also possible to discard small cultural differences that may be regarded as trivial and less meaningful.

6.4.2 Participants and procedures in the focus-group study

The interviewees were recruited from the Introduction Program for newly arrived Refugees in Bergen Municipality (*Introduksjonssenteret for nyankommede flyktninger* former name *Mottaks- og kompetansesenteret for integrering av innvadrere og*

flyktninger i Bergen Kommune; *MOKS*), which is a public program that is compulsory for recently arrived refugees above the age of 18 who are granted a residence permit in Norway. The participants were chosen to produce a maximum variation concerning age, education level, work experience, and marital status. Participants were selected as follows: employees at MOKS informed students of Somali background about the project, among those interested in participating in the project, relevant candidates were selected based on the criteria mentioned above. Most of the participants received an invitation to participate in and information about the project one week before the event (See appendix 4). The groups were divided by gender and consisted of four men and six women. The interviews were video recorded.

6.5 Measures

6.5.1 Vignette development

Lazarus[131] emphasizes that when exploring how people cope with a stressor, it is important to specify the stressor and the threats the person is experiencing, rather than focusing on the illness in general. In line with this reasoning, specific stressors experienced by a depressed person were identified and described through a vignette.

A "vignette" is a story that provides concrete examples of people and their behaviors in certain situations, upon which research participants can formulate opinions and comment on what they or a third person would do or how they would react in a certain situation[270]. Vignettes are helpful means of measuring sensitive topics, such as psychological health problems and depression. When using a vignette, it is possible to systematically adjust for individual factors – such as ethnicity and gender – while holding all other factors constant. Vignettes are practical in research for mental health issues because they allow research participants to focus on a fictive person which can be beneficial when addressing sensitive topics where the research participants may feel uncomfortable referring to their personal experiences and may thereby decrease the

potential for a socially desirable response[271]. The vignette approach is one of the most common methodological approaches and has been implemented for exploring illness beliefs coping and help-seeking preferences in various populations and studies[92, 184, 272, 273].

In this project, vignette creation followed a multistep process inspired by the steps outlined by Lapatin et al. [270]. Feedbacks from a multidisciplinary team were used to refine content and format. The study team included practitioners (psychologists), anthropologists, and specialists in the cross-cultural research field, who worked through a series of steps to ensure that key symptoms, content, and format were vetted and appropriate for participants.

Step 1: Identification and Prioritization of Content and Format by Expert Panel. The process of developing a vignette story for the study began in January 2014 and lasted through February 2014. As background material, professor Gro M. Sandal and I carefully explored the existing vignette developed by Erdal and colleagues[37]. The purpose of this review was to see if (1) a pre-existing vignette could be used in the study; (2) to identify if the symptoms described would be recognizable by various ethnic groups. Following this process, it was decided to make minor modifications to the vignette (see step 2).

Step 2: Draft of Vignette by an expert team. Two clinical psychologists (Gro M. Sandal and I) drafted the first version of the vignette. A few criteria were critical; the vignette needed to be believable for laypeople. The story needed to fulfill the ICD-10 criteria for depressive disorder. It was important to create a vignette that the respondent could both place him/herself within and at the same time creating a distance – so the respondent can think about the vignette, facilitating not only an affective experience for the reader but also an intellectual one. It was also important to include not only pathological but also positive attributes about the vignette in order to make it more realistic. The vignettes were made to vary across severity levels, gender, and ethnic

background. This was achieved by varying the vignette name, for example, Ann/John for Norwegian respondents and Anja/Zenia for Russian respondents.

Step 3: Adaptation process by laypeople and experts. To avoid an ethnocentric bias in the vignette, researchers from several disciplines (psychology, anthropology and social work) and lay people from various ethnic backgrounds (including Somalia, Pakistan, Russia, and Norway) reviewed the vignette and were invited to suggest changes to make the vignette as realistic and believable as possible. Minor language changes were suggested at this step of vignette development.

Step 4: Adaptation and translation by a bilingual team of professionals. A bilingual team translated and adapted the story into English, Russian, Polish, and Arabic. Vignettes were back-translated to ensure that the original meaning was preserved and were reviewed by a group of mental health researchers to ensure conceptual equivalence.

The finale vignette used in the study read as follows:

> "*John/Ann is a 27-year-old waiter in a restaurant in Bergen. He/she was born in Oslo to parents who were restaurant owners, but has made Bergen his/her home for 5 years. In the last few weeks, he/she has been experiencing feelings of sadness every day. John/Ann's sadness has been continuous, and he/she cannot attribute it to any specific event or to the season. It is hard for him/her to go to work every day; he/she used to enjoy the company of his/her co-workers and working at the restaurant, but now he/she cannot find any pleasure in this. In fact, John/Ann has little interest in most activities that he/she once enjoyed. He/she is not married and lives alone, near his/her brother/sister. Usually, they enjoy going out together and with friends. But now he/she does not enjoy this anymore. John/Ann feels very guilty about feeling so sad, and feels that he/she has let down his/her brother/sister and friends. He/she has tried to change his/her work habits and start new hobbies to become motivated again, but he/she cannot concentrate on these tasks. Even his/her brother/sister has now commented that John/Ann gets distracted too easily and*

cannot make decisions. Since these problems began, John/Ann has been sleeping poorly every night; he/she has trouble falling asleep and often wakes up during the night. A few nights ago, as he/she lay awake, trying to fall asleep, John/Ann began to cry because he/she felt so helpless."

6.5.2 Survey study

6.5.3 Instruments

Questionnaire regarding demographic information. The instrument used consisted of items assessing demographic characteristics such as age, gender, country of birth, living time in Norway, level of education (primary school, high school, and university or higher), current status (for example, under education, or employed), and reason for migration.

Ethnicity was used to classify the study population. It was decided based on two questions "*what is your country of birth….*", and what is your "*your heritage culture (other than Norwegian) is:….* ". There was a pretext before the second question that read as follows: "*Many of these questions will refer to your heritage culture, meaning the original culture of your family (other than Norwegian). It may be the culture of your birth, the culture in which you have been raised, or any culture in your family background. If there are several, pick the one that has influenced you most (e.g., Irish, Chinese, Mexican). If you do not feel that you have been influenced by any other culture, please choose a culture that influenced previous generations of your family*." The second question was asked at the end of the survey, just before the acculturation measure.

However, *cultural heritage* as a selection criterion has shown to be problematic. What one perceives as one's *cultural heritage* can vary remarkably between people. Somebody recognizes themselves with "Soviet" and other with "Moskovit" or "Russian". In order to use the accurate population denominator to assign the correct ethnic group, the study population was defined by "country of origin" as this was

regarded as the best possible alternative, while at the same time recognizing that countries are seldom homogeneous. I choose to have a strict selection procedure, and if there were some insecurity regarding what kind of ethnicity a person had, the person was excluded from the study. For example, several possible Russian respondents wrote that they were "Soviet", and some possible Somali respondents that they were African or Arab, which made it difficult to allocate them to one specific country, and they were therefore excluded. This selection procedure may be problematic, as it excludes possible relevant participants.

Help-seeking preferences. For the present thesis, one of the most common measures of help-seeking preferences, the General Health Seeking Questionnaire (GHSQ)[274] was chosen. The GHSQ consists of 22 items measuring different help-seeking sources, e.g., friend and General Practitioner. Several other measures were considered, for example, the Help-Seeking Intention Scale (MHSIS)[275], and the Seek Counseling Inventory Scale (ISCI)[276], which focus more on formal help-seeking sources. The GHSQ allows assessing help-seeking from both formal and informal sources. Also, the developers of the GHSQ encourage researchers to modify the questionnaire and include those problem types and help sources relevant for a given study. Since the purpose of the thesis was to explore help-seeking preferences more in general, the GHSQ was considered as most appropriate. GHSQ has demonstrated appropriate dimensionality and reliability[274] and predictive validity[277]. Also, GHSQ has been used in similar recent research[278], which allows for comparison of data across studies.

Coping preferences. A variety of conceptual coping-frameworks has been proposed, and numerous measures have been developed to assess ways of coping[123, 124]. The most commonly used when measuring coping preferences in case of depression is the following: The Ways of Coping Questionnaire[279], COPE[280], and the Coping Strategy Inventory[281]. Recently some studies have adapted those scales to various ethnic populations[282-284]. However, those instruments deal with coping in general terms, and many items are not relevant for coping with domain-specific situations[124]. Some coping

measures adopted for domain-specific situations were identified and considered[37, 141]. However, they were not validated or not adopted to various ethnic populations. To build upon that and to overcome the limitations described above, we developed the *Cross-Cultural Depression Coping Inventory* (CCD-CI).

Development of CCD-CI.

Development of CCD-CI. To create a valid, culturally adopted coping instrument, the CCD-CI was developed using a combined emic and etic approach inspired by a three-stage sequence approach by Berry[285]. We started with an etic approach, building on existing theoretical concepts and measurement methods previously used in the authors' home culture (Norway), more precisely a survey developed by Erdal et al.,[37]. Then, the emic approach was applied to review selected items with an eye to possible limitations of the original constructs e.g., avoid ethnocentric biases. The items were reviewed by a panel of researchers from several disciplines (anthropology, social work and psychology) and laypeople from several countries (including Norway and immigrants from Russia, Poland, Somalia, and Pakistan). In addition, they were encouraged to suggest additional items to cover coping behavior that could be relevant in other cultural contexts. We also reviewed frequently used coping instruments, including Ways of Coping Questionnaire[142], COPE[280], and Utrecht Coping List[286]. In the third step, because the meaning of items may differ across ethnic groups, cultural brokers (persons who are familiar with both Norwegian and heritage cultures) from Russia, Somalia, Pakistan, and Poland reviewed the items in terms of relevance and language accuracy. The selected pool of items was then again reviewed by a panel of researchers to reduce overlapping items, face validity and to facilitate readability. The final version of CCD-CI that is used in this study consists of 28 items. In this thesis, the dimensionality of the CCD-CI was tested on Polish, Russian, Somali, and Pakistani immigrants in Norway (Paper 1),

Adoption of mainstream culture and maintenance of heritage culture. Before 1995, the unidimensional model of acculturation prevailed in the acculturation field,

one of the most usual instruments used then was Suinn-Lew Asian Self-Identity Acculturation Scale[287]. With the growing of bidimensional understanding, the bidimensional model of acculturation became a viable alternative to measuring cultural orientation[288]. Celenk and Van de Vijver[289], pointed out the Vancouver Index of Acculturation (VIA)[105] as the frequently used measurement for a bidimensional model of acculturation and was chosen to be used in this thesis. VIA measures acculturation as a preference/process and has shown to have good psychometric properties[105, 289]. This instrument makes it possible to divide into two one individual`s orientation to culture; adoption acculturation orientation (orientation to mainstream culture) and maintenance acculturation orientation (orientation to heritage culture).

6.5.4 Focus Group Study

To get a better understanding of socially constructed and culturally validated narratives, this thesis intended to obtain socially constructed ideas of depression shared by Somali community members, rather than the first-hand experience and beliefs of persons with the respective mental health issues[290]. Therefore, this thesis employed a focus group interview method, in which each question inquired about common distress idioms and explanations shared by community members. Questions about common perceived causes and preferred coping and help-seeking in the community allowed respondents to exchange and validate ideas about cultural practices and beliefs through open discussions[291].

Focus group interview guide. Since the original formulation of explanatory models[93], a number of tools have been developed to explore explanatory models in interview situations, for example, the McGill Illness Narrative Interview (MINI)[292] and the Barts Explanatory Model Inventory (BEMI)[293] and the Short Explanatory Model Interview (SEMI)[294]. Based on the work of Kleinman[59], Weiss developed the Explanatory Model of Illness Catalogue (EMIC). EMIC is a semi-structured interview for systematically eliciting explanatory models to explore ethnic differences in patterns of distress. It also helps to explore patterns of distress, stigma towards illness, perceived causes of the

problem and help-seeking practices[101]. The EMIC guide inspired the interview guide used in this study. The guide (See Appendix 5) used in this study was developed through collaboration with a resource person (Ilham Hassan) from the Somali community. The resource person was at that time well familiar with the Somali community settled in Norway and the Norwegian culture. The resource person was first asked to look through the guide with a critical eye and reflect upon if some of the questions in the guide can be perceived as offending, can be difficult to understand and how the guide can be improved. The resource person was also asked to show the guide to a Somali person who cannot speak Norwegian and with short living time in Norway and ask to reflect upon the same questions.

6.6 Analysis

6.6.1 Survey Study (Papers 1, 2 and 3)

The SPSS PC Statistical package, version 22.0, was used for data analysis[295]. A descriptive analysis was performed to assess the characteristics of the sample.

Paper 1 and 2: Cronbach`s alpha coefficient was used to determine the internal consistency reliability of the GHSQ, CCD-CI, and VIA-subscales. A principal components analysis, with Varimax rotation, was used to extract coping and help-seeking strategies that tend to be used simultaneously. Items with cross-loadings of .40 or higher on two or more factors were removed[296]. For the CCD-CI, factor loadings obtained in the various ethnic groups were compared to examine structural equivalence (to establish the identity of the factors across ethnic groups). Differences in means between all ethnic groups were assessed by a multivariate analysis of variance (MANOVA) and Tukey post-hoc tests. A correlation analysis was conducted to explore the relationship between preferred coping (Paper 1) and help-seeking sources (Paper 2), acculturation orientation (only immigrant samples), and background variables (Paper 1 and 2). Finally, a hierarchical multiple regression analysis was conducted to investigate whether coping preferences explained acculturation orientations when controlling for gender, age and years of higher education for the immigrant sample (Paper 1) and whether the acculturation subscales explained preferences in help-seeking when controlling for gender, age, and years of higher education for the immigrant sample (Paper 2). In Paper 3 mean score, standard deviation, and the confidence interval were examined for CCD-CI and GHSQ only for the Somali immigrant group.

6.6.2 Focus group study (Paper 3)

The qualitative data analysis software NVivo10[297] was used for organizing and processing the data.

There are numerous approaches to how qualitative analysis can be conducted[298]. Some are strongly linked to philosophical perspectives and scientific traditions. According to Brinkmann and Kvale [298], regardless of the method of analysis, there are several levels of interpretation. Meaning condensation analysis in this thesis was carried out at three levels.

1) I watched the video several times and transcribed the interviews. See Appendix 6 for transcript examples. The transcribed interviews were then read to acquire a sense of the whole. The meaning units were identified, and data condensed.

2) Transcriptions were read several times to achieve a common-sense understanding, providing a broader comprehension of the expressed meanings. Data were analyzed in accordance with the principles of Template Analysis[299]. This means that key topics were defined in advance. These topics could, however, be changed, dispensed with, or amplified if those defined a priori did not prove to be useful or appropriate to the actual data examined. As a starting point, the classification of causal beliefs and coping strategies by Hagmayer and Engelmann[35] were used as a priori categories to analyze the data. This type of "thematic" analysis is often used in mental health service research [300].

3) The emergent themes were linked to existing literature, and theoretical understanding helped reveal a deeper meaning where the mutual relationship between the whole and the parts became clearer. At this stage, the emergent themes were also discussed with resource persons from the Somali community.

6.7 Ethical considerations and clearances

I encountered several ethical concerns while studying cross-cultural differences. One of the biggest ethical dilemmas a cross-cultural researcher encounters is the potential for the findings from their study being used to justify powerful stereotypes about cultural groups they are studying. The immigrant groups' studied in this thesis (e.g.,

Somali and Russian groups) are already strongly stereotyped in Norway[203, 301]. Differences that may be documented can be used to help maintain stereotypes of differences by the consumers of my research. Research findings documenting differences between Norwegians and Somalis may result in statements that overgeneralize the findings to apply to all members of these groups. Thus, individual differences that exist in human behavior may be overlooked. As a researcher, I need to be aware that my findings can be used in these ways and that I am responsible for taking active steps to avoid misuse of my findings. This starts with the tempered and nuanced interpretation of my findings, incorporating information not only about between-group differences but also about within-group differences in the data (e.g., through the use of appropriate effect size statistics and interpreting data in relation to these statistics). This obligation also extends to correcting misinterpretations of one's findings by other researchers who cite one's research[302].

6.7.1 Ethical approval

The study was approved by the Regional Committee for Medical and Health Research Ethics, Western Norway (no. 2015/547 and no 2013/2181) and the Norwegian Social Science Data Services (NSD; no 36143).

6.7.2 Informed consent

At the start of the survey and in line with the Declaration of Helsinki, the participants signed a declaration of consent and received written information about the study on screen or paper. They were informed that individual information would be kept confidential and told how data would be stored and reported (see appendix 3).

In focus groups, the nature and purpose of the study were explained, orally in Somali, by a native translator to every participant before his/her consent was given. A signature or a cross confirmed the informed consent (see appendix 4) from respondents. After providing information about the study, participants were given approximately 10 minutes to leave the interview. The room chosen for the interview was designed in such

a way, that participants could leave the room easily during the interview process if they changed their mind about participating in the study. Permission to record the interview session on videotape was sought orally from each informant before the interview. They were assured confidentiality and informed about their rights to withdraw from the study at any time during the interview without explanation or any negative consequence for them.

6.7.3 Anonymity and confidentiality

The quantitative data. The survey data did not include any sensitive information or information that could identify respondents. The survey data were stored on the SurveyXact domain. SurveyXact has a data processor agreement with the University of Bergen.

The qualitative data. The video recordings were stored on the encrypted and password-protected university hospital network, transcribed immediately after the interview, and deleted afterward. The transcripts were anonymized; all data that could be traced back to the interviewees were changed; for example, the age and living time in Norway was changed into age groups. It has to be noted that despite these attempts to keep anonymity and confidentiality to focus group participants, focus group methodology generates distinct ethical challenges that do not correspond fully to those raised by for example one-to-one interview[303]. For example, confidentiality and anonymity are potentially problematic because of the researcher`s limited control over what participants may subsequently communicate outside the group. These challenges were faced by encouraging the participants not to discuss individual stories outside the room of the interview. In addition, prior to the interview, we decided to avoid or close down potentially distressing discussion. No such discussions were observed during the interviews.

7. Results Overview

In this section, a summary of the most important findings from each of the three papers comprising this thesis will be presented.

7.1 Paper 1

Paper one was divided into two parts. In part one, a new instrument was designed, and the dimensionality of the instrument was explored. In part two, we performed an initial validation of the instrument. Part one: The final scale consisted of 21 items; the analysis supported a three-factor solution labeled; Engagement, Disengagement, and Spiritual coping. The factors were psychometrically meaningful, and there was factorial agreement across ethnic groups. In part two, most of our hypotheses (see paper 1) were supported, illustrating promising validity of the instrument. In addition to initial validation, this study also allowed for an initial examination of how various ethnic groups prefer to cope with depression. Somali and Pakistani respondent groups preferred spiritual coping more than other ethnic groups, while Russian and Polish respondent groups preferred spiritual coping more than the Norwegian respondent group. Engagement coping preferences were positively associated with maintenance and adoption acculturation orientation, while spiritual coping preferences were positively associated with maintenance acculturation orientation and negatively associated with adoption acculturation orientation.

7.2 Paper 2

In paper 2, significant differences were found in the endorsement of traditional (e.g., religious leader), informal (e.g., family), and semiformal (e.g., internet forum) help-sources between immigrant groups, and between immigrant groups and the Norwegian respondent group. Immigrants from Pakistan and Somalia endorsed traditional help sources to a greater extent than immigrants from Russia and Poland, and the Norwegian

student sample. There were no ethnic differences in endorsement of formal mental help sources (e.g., a medical doctor). Maintenance of the culture of origin as the acculturation orientation was associated with preferences for traditional and informal help sources, while the adoption of mainstream culture was associated with preferences for semiformal and formal help-seeking sources.

7.3 Paper 3

The Somali immigrant group was the one that diverged the most when it came to preferences regarding coping and help-seeking compared to other ethnic groups included in this study.

In Paper 3, these participants showed a strong preference for coping with depression by religious practices and reliance on family, friends, and their ethnic/religious community rather than seeking professional treatment from public health services (e.g., medical doctors, psychologists). Depressive symptoms were conceptualized as problems related to cognition (thinking too much) and emotion (sadness), but not related to biological mechanisms, and were thought to result from spiritual possessions, stress from social isolation, or past trauma. Independent of time in exile, the participants showed a strong identification with their ethnic origin and associated values. As participants emphasized the need to obey and follow the viewpoint of elders, parents, and spiritual leaders, these authorities seemed to be “gatekeepers” for access to mental health services.

8. Discussion

T**he overall aim of this thesis was to explore how specific immigrant groups settled in Norway interpret, view, and react to (prefer to cope with) symptoms of depression.**

To attain the overall aim, four specific research questioned were constructed and investigated across three papers. The following discussion of the significant novel and relevant findings from this thesis is structured according to three headlines. First, the research objectives examined will be discussed. A separate section is dedicated to discussing the central strengths and limitations of the thesis. Finally, the last part of the discussion includes separate sections elaborating on how findings could have implications for practice.

8.1 General discussion

8.1.1 What is perceived as effective coping in the case of depression by various immigrant groups settled in Norway? (Paper 1 and 3)

To examine what is perceived as effective coping in the case of depression by various immigrant groups settled in Norway, a new instrument CCD-CI was developed in Paper 1. Three clusters of coping strategies were identified (Paper 1); engagement, disengagement, and spiritual coping. Engagement coping is characterized by direct attempts to influence the stressor itself or emotions in response to the stressor, disengagement coping is characterized by responses oriented away from the stressor, whereas spiritual coping is characterized by orienting towards a spiritual source for example through prayer. Similarities and differences were identified when ethnic groups were compared based on their preferences. Similarities will be discussed first, and the findings from Paper 3 will be used to elaborate on the results from Paper 1.

Engagement coping had the strongest endorsement independent of the ethnic groups examined. This similarity indicates that all ethnic groups examined prefer coping efforts such as "*physical exercise"* or "*spend more time in nature"* relatively more than coping effort such as "*avoid thinking too much*" when handling depression. Preferences towards engagement coping among laypeople have been demonstrated in earlier research[139, 304]. However, there has been a lack of studies comparing preferences in coping among various clearly defined migrant groups[35, 43]. Our findings indicate that what constitutes engagement coping may differ across ethnic groups. Our findings show that preferences towards engagement coping among immigrant respondents are positively correlated with both maintenance and adoption acculturation orientations. This may suggest that coping strategies preferred can be congruent with norms in both heritage and the new country of settlement. This can be illustrated with qualitative findings in Paper 3. The Somali respondents reported that it was helpful when the Norwegian doctor provided concrete advice about how to handle depression, for example, advising them to start an exercise program – a coping strategy that has proved to be effective when handling depression[305]. However, according to the Somali respondents, this activity had to be appropriate to their religious beliefs. If the doctor recommended exercise, the women could find it challenging to go to mixed-gender gyms but could practice yoga at home or go for a walk outside. This finding is important because common goals may foster a therapeutic alliance, which is essential for successful therapy[75, 186].

Ethnic groups examined in this thesis differed significantly when it comes to preferences towards disengagement and spiritual coping. Differences regarding disengagement coping will be discussed first. Pakistani and Somali respondents preferred disengagement coping to a greater extent than the Polish and the Norwegian respondents. Preferences towards disengagement coping have been demonstrated among some ethnic groups earlier[178, 283]. The differences found may be understood in several ways. Some studies suggest that preferences towards disengagement coping may be associated with low health literacy and low perceived control regarding the

illness and the illness outcomes[178, 306]. In addition, Dijkstra and Homan[306] found that less perceived control and disengagement coping were negatively associated with psychological well-being, while engagement coping was associated with a greater sense of control and psychological well-being. In Paper 1 preferences towards disengagement coping were positively correlated with engagement coping for all groups. While this finding is congruent with previous studies[185, 281], and supports the view that people usually prefer to use and use a mixture of several types of coping strategies, which may vary over time[35, 90, 92, 133]. The levels of preferences towards both engagement and disengagement coping were stronger among respondents from Somalia and Pakistan[178, 283]. Wong and colleagues[307] argued that individuals from collectivistic cultures could embrace paradoxical and dualistic forms of beliefs that may influence coping. For example, that one might at the same time subscribe to culturally influenced beliefs that can be characterized as internal solution attribution, for example, the importance of exerting personal effort to resolve one`s problems and other beliefs that can be characterized as external solution attribution, for example, a fatalistic belief that the resolution of one`s problem lies in external forces outside one`s control[146, 283]. The Somali respondents (Paper 3) described several possible internal and external factors that could have influenced the onset of depression in the vignette character, for example personal, spiritual, or social causes (see section 3.2.3) and based on that the Somali respondents argued that they would use a combination of different coping behaviors e.g., exercise (engagement coping) and avoidance of certain places and thoughts because of belief in possible Jinn possession (disengagement coping). Subsequent studies could explore how the feeling of control (related to mental illness) may be associated with the preferences in coping observed in that study.

All immigrant groups included in this thesis preferred spiritual coping to a greater extent than the Norwegian student respondents. The Somali and Pakistani respondents were the groups that preferred spiritual coping the most. Somali and Pakistani immigrants mainly belong to the Muslim faith. Studies from other European countries have also found that relative to other religious groups, Muslim minority groups have

greater faith in the ability of Islam to help them cope with depression[180, 308]. Earlier studies have shown that spiritual coping is linked to less depression and anxiety[309] and may be associated with indicators of good mental health, including greater happiness, quality of life, and psychological well-being[310, 311]. However, spiritual coping is a multidimensional construct and can also have adverse effects on mental health [181]. Illness could be perceived as being a punishment from God, or feeling unsupported by one's religious community [179, 312]. For example, one respondent in the focus group (Paper 3) said that Muslims who do not follow the guidelines described in the Qur'an (regarding, for example, smoking and drinking) have a higher chance of "getting" mental illness. This kind of thinking has been reported in earlier studies[313]. Gladden[41] reviewed the literature on coping among East-African refugees and found that having a mental illness may also be associated with shame, which can eventually restrict engagement coping and help-seeking behavior. Investigating this empirically and examining what kind of health outcomes this may have, e.g., for Somali refugees, is a task for future research.

8.1.2 What is perceived as effective help-seeking in the case of depression by various immigrant groups settled in Norway? (Paper 2 and Paper 3)

The results in Paper 2 indicate that people will seek help from various sources. These sources were classified as formal, informal, semiformal, and traditional help-seeking factors. Formal factors included sources such as general practitioner and psychologists, informal factors consisted of sources such as family and friends, semiformal factors included sources such as telephone helplines, and traditional factors included sources such as religious leaders and healers. Similarities and differences in help-seeking preferences were identified when ethnic groups were compared. The similarities will be discussed first, and the findings from Paper 3 will be used to elaborate on the results from Paper 2.

The results indicate that independent of ethnicities, respondents preferred to rely on informal sources of help before turning to semiformal and/or formal help sources.

Preferences towards informal sources of help are in line with previous research[36, 37, 42, 191, 314] highlighting the importance of social networks in coping with mental health problems. However, what constitutes social networks may differ across ethnic groups. For example, when the Somali respondents (Paper 3) talked about their families, it was often in a more extended form than what is often perceived as a family in Norway (nuclear family)[246]. Somali culture comprises a clan-based social system that emphasizes communal bonds, also in migration. The clan is obliged to help their clan members, but the clan members are also responsible for the well-being of the clan. Our findings indicate that decisions related to help-seeking are closely related to the sense of self within the wider community. Our respondents described how in the Somali community, the social network has a strong influence on understanding the illness, influences intentions to seek access to services, shapes attitudes towards treatment, and exercises a sense of control about help-seeking and may make the appropriate treatment possible by allocating necessary financial resources or looking after children. One of the participants (Paper 3) told us that the treatment chosen by the community would often be chosen above other treatment options "*if the doctor recommends something that the community does not agree with, the treatment recommended by the medical doctor would not be followed*". The importance of the collective opinion for immigrants with Somali backgrounds is congruent with other studies on Somali immigrants in other European countries[90, 162].

There was no difference between ethnic groups regarding preferences towards seeking help from formal help-seeking sources. One possible explanation for that may be that access to healthcare in Norway is universal. At the same time, these results are interesting because this does not correspond with earlier studies in Norway that have demonstrated that immigrants use existing health services differently than Norwegians[14, 315]. During the focus group interviews (Paper 3), Somali respondents said that the GP would not be their first choice and that if they contact the GP, they would only describe physical symptoms, and would talk about the rest of their symptoms to their social network or religious leader. Possible contact with a

psychologist or another mental health worker was briefly mentioned early in one of the interviews (Paper 3). However, the informants seemed to have vague ideas about help a psychologist can give. They expected both medical doctors and psychologists to provide concrete solutions that would effectively cure the depressed person. In Norway clients are expected to be active in treatment planning[316]; this may differ from Somali refugees' expectations of clinical encounters. These findings may indicate that underutilization of mental health services by the Somali immigrant group in Norway may be due to misunderstandings during the clinical encounter and not due to lack of awareness of the importance of formal sources of help. Different expectations and views about, for example, the role of GP and what information is important to share in the clinical encounters may also help explain why Somali migrants in Norway have the highest number of unspecified diagnoses compared with the general population and other immigrants groups[54]. This should be examined in more detail in later studies.

The most significant difference between ethnic groups regarded preferences towards seeking help from traditional help-seeking sources. Immigrants from Somalia and Pakistan endorsed traditional sources of help the most, while Norwegian respondents did so the least. Similar differences have been found in other studies that compared cultural minorities to majorities in other European countries[90, 183], as well as in the USA[184]. Despite some increase in research in recent years, the importance of spirituality and traditional sources of help have been ignored for a long time by Western researchers and practitioners in the mental health field[124, 179]. The existing gap between the formal health system and client preferences has also been observed in the qualitative part of the study (Paper 3). For example, several participants talked about acquaintances suffering from similar symptoms to the vignette character who had been dissatisfied with the treatment they received from Western health practitioners and referred to the positive effects of traditional "treatments". One of the participants illustrated this with a story: *"I know a girl here in Norway, and they went to different doctors in Norway, but nothing helped, then I and several people from our community recommended her family to read from the Qur'an, and that helped"*. Participants said

that many Somalis preferred to return to Somalia or other African countries for treatment, a tendency also observed in other European countries[317]. Lunt[317] categorized this behavior as "*medical nomadism*," linking this behavior to the cultural agency, diaspora, transnationalism, and political-cultural structures. In Somalia, people would contact a traditional healer in addition to an imam if a problem such as that described in the vignette occurred. According to the World Health Organization [249], healers in Somalia can work independently or alongside general practitioners or an imam where practices often include herbal medications and prayer rituals. This example not only illustrates the importance of help-seeking from traditional sources but how these sources may be interlinked with other help-seeking strategies such as informal and formal help-seeking sources.

8.1.3 How can conceptualization of depression influence help-seeking and coping preferences

Findings reported in Paper 1 and 2 showed that the Somali immigrant group diverged the most with respect to preferences regarding coping and help-seeking. Paper 3, explored lay explanatory models for depression among Somali immigrants in Norway. The results showed that religion and social relationships carried much weight both in etiological beliefs and views about efficient coping behavior. The results may hold several valuable insights into the pathways to formal mental health care in one of Norway`s largest immigrant communities. The most salient insights among them, which will be discussed in this part, relate to the fragmented nature of the explanatory models and the complex approach to coping and help-seeking within this community. Our results indicate that help-seeking is not a purposeful activity of the individual as it may often be perceived but a result of interaction with the social environment for example, with family and friends.

Explanatory models. In search of explanations for depression, our findings suggest that depressive symptoms are often conceptualized as an "illness of thoughts". This is consistent with earlier findings that have focused on eliciting the meaning of the

subjects` experience of illness using qualitative methods[92, 318]. "*Illness of thoughts*" was seen as a condition primarily caused by social (e.g., lack of a life partner), personal (e.g., loneliness), or spiritual (e.g., being a "bad Muslim," Jinn possession) causes, and was primarily perceived as non-chronic by our respondents[35]. The result is in line with earlier literature[35] that found that individuals within the same ethnic group may endorse more than one causal factor. Locating the causes of mental health problems outside the individual, in social relationships or the surrounding living environments, has also been reported in previous studies on Somali refugees[39, 319]. According to Kankaanpää[319], this kind of mental health conception may play a role in shaping depressive symptom manifestations. She demonstrated that older Somalis who attributed mental health problems to stressful life experiences, manifested fewer cognitive depressive symptoms, such as guilt and feelings of worthlessness, than Somali participants who did not attribute mental health problems to life experiences. Earlier studies have shown that Somali refugees frequently attribute mental health problems to non-natural causes[215]. Our respondents also raised fate, religious and supernatural beliefs related to Jinn possession as possible explanations. Specifically, Jinn's possession was stressed as a possible explanation for depression described in the vignette. Our respondents described several ways in which humans could become possessed by Jinn against their will; for example, the person could be possessed by walking in "*the wrong*" areas inhabited by these spirits without knowing it. Jinn is viewed as an invisible being created by Allah. Gladden [41] and Kankaanpää [319], note that Somalian immigrants more commonly cite Jinn spirits as a cause, than other spirit categories, cures, and witchcraft, than elsewhere in Africa. A possible reason for this is that while other spirits can be seen as being against Islamic teachings, Jinn spirits are mentioned in the Qur'an[320]. For the same reason, Jinn possession is a legitimate cause of suffering and common causal attribution of mental health problems in many Muslim-faith populations[320]. The respondents in the focus group study had only lived in Norway for a couple of years, and it is conceivable that the belief in spiritual causal explanations may diminish the longer they live in Norway. This has not been examined; however, our survey data indicate that spiritual coping and traditional help-seeking were also preferred by Somali

respondents who had lived for an average of ten years in Norway, which may indicate that spiritual explanation of illness still prevails among some.

One possible explanation for the importance of religion may be that the Islamic religion is seen as providing a sense of connection and a meaningful and familiar framework for many Somalis in a new country, especially when they may be disconnected from their social network due to migration[41, 321]. This interpretation is in line with our findings and previous studies[90, 92] that preferences for spiritual coping were positively associated with maintenance acculturation orientation and negatively associated with adoption acculturation orientation. Thus, it seems that spiritual coping strongly reflects a strategy related to in-group connectivity.

Although cultural issues are likely to be of considerable influence, the coping and help-seeking preferences of Somali respondents should not be decontextualized from the particularities of their lives as refugees. The respondents highlighted the psychological vulnerabilities of refugees, which arise from a range of different predisposing, need, and enabling factors that impact their coping and help-seeking behavior [45, 156, 193]. To some extent, our respondents associated their current mental state and mental health challenges with the loss of their close network and loneliness experiences in the new country with depression described in the vignette. However, one of the limitations of this study is our inability to disentangle the extent to which the experience of loneliness has become part of the perceived identity and narrative of being an immigrant or refugee or how deeply they truly accept these feelings and events as part of the origin of depression.

The theoretical approach of this thesis was based on Kleinman`s explanatory model approach. While this approach has been useful in exploring the lay concepts of depression, some limitations of the model must be recognized. It has been noted that the immigrant and refugee populations can hold diverse, fragmentary, and even contradictory notions about mental health, raising doubts about the usefulness of the construct of explanatory models[322]. Our findings indicate that there may be a seemingly

weak relationship between laypersons' EM and choice of help-seeking source. For instance, some participants (Paper 3) said they would not pursue medical treatment even though they believed it to be the right choice if their family did not agree. This behavior can be understood in the context of collective coping[191] and the stigma of mental illness[323]; the family together decides when and what type of treatment to seek. Such findings challenge the assumption that laypeople make choices about therapeutic options based on clearly developed theories about the illness. Similar limitations have been noted in earlier studies[92], and other models for understanding illness have been proposed[84]. However, Kleinman[324] argues that EMs are practical statements about particular illness and illness experiences and not systems of thoughts. According to him, these statements are expressed guides to help-seeking choices. Despite its limitations, the EM framework provides a lens for examining emic understanding of illness in different settings and brings meaning as it incorporates the community, and feelings into an understanding of the help-seeking process[86].

Pathways. Our findings indicate that Somali immigrants consider several different EMs and coping strategies, often simultaneously. This is consistent with earlier research[35, 318], and with other work on immigrants, for example, Turkish-speaking immigrants in Britain[325]. Our findings indicate that this pattern may be as follows; if the illness is perceived to have a mild to moderate form, it will primarily be treated through alternative treatment (self-help strategies such as getting some rest and physical exercise) and inside the social network, often with the help of religious practice. A medical doctor will only be contacted if the illness is perceived as severe enough, other coping strategies did not help and/or when somatic symptoms such as stomach pain are present. As noted above and consistent with earlier research, a myriad of factors influences human help-seeking preferences and behavior[45, 73, 148, 149]. For example, there is a great deal of research that suggests that treatment choice is determined by contextual factors such as political factors rather than underlying EM[24, 201, 206]. The attitudes towards mental illness or structural barriers (for example, availability of health services) may also be more constraining than subjective beliefs[16,

[167, 169, 212, 213]. Some research also suggests that people may use biomedical treatments regardless of their cultural beliefs while they maintain their traditional explanations of illness. However, similar to other studies, the complex pathways to care and multiple help-seeking sources outlined in this thesis suggest that help-seeking is not that pragmatic[73, 84, 325]. We did observe the presence of stigmatizing attitudes towards mental illness and that the individual`s EM was often less important than how their family understood the problem. However, the strong collective belief in religious and supernatural beliefs about the origins of illness and preferences towards religious coping indicates that cultural beliefs have a strong influence on help-seeking behavior in the Somali immigrant group.

8.2 Strengths and limitations

The overall strength of this thesis is the broad, multiphase mixed-method approach. Such broad approaches have been called for[35, 43, 45, 133], and are needed in order to gain a more comprehensive understanding of what influences the transition between the understanding of mental illness and the choice of coping among different immigrant groups settled in Norway[35, 43, 45]. However, this study also faces well-known problems relating to research on attitudes. This pertains for example, to the tendency to include communicative and cooperative research participants who tend to answer according to social desirability. However, the use of a vignette may have reduced some of the social desirability[271, 326], the validity of the results is still supported by the high consistency between the quantitative (survey) and qualitative (interview) data (Paper 3) and by correspondence with previous research. In future research, a larger sample size, as well as other ethnicities (e.g., Syrian, Afghani, Eritrean refugees), could be included to gain a better picture of different immigrant groups` understanding of depression and preferences towards help-seeking.

8.2.1 The vignette

The present study used a vignette methodology. This offers a number of benefits, for example, flexibility that allows the researchers to design an instrument uniquely responsive to specific topical foci, and depersonalization that encourages the participants to think beyond their circumstances which are important for sensitive topics such as mental illness or for illuminating future service use patterns[326]. Lastly, in a focus-group setting, the "story-telling nature" of the vignette approach may be perceived by the participants as relaxing and exciting and may reduce the feeling of being overburdened by, for example, the interview process[326]. However, using a vignette also presents several limitations, including; (1) problems related to response, (2) shortcomings inherent in hypothetical scenarios, and (3) challenges of analysis. First, the respondents may be reluctant to advise on a hypothetical scenario. Although respondents in both focus groups voluntarily recognized the symptoms described in the vignette, and no one seemed to have any trouble interpreting them and recommending strategies for coping, a couple of respondents during our interviews seemed to be somewhat reluctant to talk, and a couple of participants, for example, said: "*I cannot give advice, when I know so little about the person* (in the vignette).". We tried to solve this problem by applying "person-centered interviewing" consisting of creative probing and reassuring encouragement, for example, by saying: "*There`s no right or wrong answer, just say what you think about this situation*"[327]. Second, the data collected and analyzed was, by intention and design hypothetical and may not predict or reflect a participant`s real future activities. For example, it is unlikely that a female participant, who is married and has children, will ever experience living alone and working in a restaurant. Thus, while we gather important data on, for example, a female Somali participant's preferences related to help-seeking, we cannot necessarily conclude that her perspectives can be generalized to her use of services. However, by using the vignette approach, we will arguably gain some insight into explanatory models existing within a community. Also, in the qualitative approach, there may be multiple ways in which the participants could interpret the vignette and equally many

ways that we could interpret their responses[298]. For example, some respondents said that they would not advise the vignette character to go to the doctor. Should we interpret this as a rejection of formal services or a lack of awareness of alternatives to self-help? Since the use of a vignette intended to elicit insight about possible explanatory models and coping preferences, other responses (such as attitudes towards formal health care and the importance of religion) were not discouraged but were considered of secondary importance to the aims of the thesis. Lastly, we only studied coping and help-seeking proposals for a vignette that depicts depression. Therefore, our results are solely valid for this disorder. Its relevance to other mental disorders or even to medical problems, in general, is restricted, although shared belief systems might exist regarding the helpfulness of interventions for mental disorders[170].

8.2.2 The quantitative data collection

First, the data reported is cross-sectional. The thesis only focused on assessing causal beliefs and ideas about efficient coping and help-seeking. Thus, we did not examine the potential effectiveness of different coping or help-seeking behaviors in relieving depressive symptoms. This thesis leaves this important topic open for future research.

Second, the data were collected in a Norwegian context, and it might not be possible to extrapolate the results to immigrants living in other countries, as possible coping behaviors and help-seeking sources are contingent on the environment and structural resources.

Third, several potential biases connected to the data collection methods and procedures need to be pointed out. When generalizing the findings to other populations of the same ethnic background, it should be remembered that the samples were relatively small and not representative as the thesis was based on a convenience sample mostly recruited through social media. Although some research indicates that samples recruited through social media are representative of the general population as samples recruited through

traditional methods[268], there is a possibility that this recruitment method has resulted in a skewed sample. For example, as compared with the larger population of Pakistani immigrants in Norway, the majority of Pakistani participants in the survey were relatively young, in addition many were Norwegian born to immigrant parents. Gender distribution was also somewhat unevenly distributed between the groups; the Russian respondent group had the largest proportion of female respondents. However, it is important to note that gender distribution in the Russian sample in part mirrors gender representation in the Russian population in Norway [328].

Lastly, the recruitment process, specifically of the Somali respondent group, was time-consuming and challenging. Even though it must be taken into consideration that no incentives for participation were given, the same recruitment problems were not observed during the recruitment of other ethnic groups included in this thesis. These challenges are in accordance with earlier research, which shows that recruitment from marginalized and vulnerable populations can be demanding and challenging in different ways[329, 330]. This may be an important observation as it may say something about how refugees with Somali backgrounds relate to the issue of the study: Mental illness. For example, as pointed out by one of my contact persons in the Somali environment when discussing obstacles we met during the recruitment process; "(Somali) *people are reluctant to answer because, explicitly or implicitly, they may think that mental health issues are scary to touch on and give an opinion about"*. Similar recruitment difficulties have also been observed in earlier studies involving the Somali group[40]. From our experience during the recruitment process, a direct approach with potential respondents through Facebook or a Somali café and the involvement of gatekeepers were the most effective recruitment methods for this topic.

8.2.3 The survey

Lastly, there are several limitations to the survey that has to be addressed. There was no "*not relevant*" alternative in the CCD-CI and GHSQ. For example, the first alternative in GHSQ is seeking help from an "*intimate partner (e.g., girlfriend,*

boyfriend, husband, wife"); this alternative may be more challenging to answer for somebody who does not have a partner. There are also some alternatives we did not include in the survey**,** which may be a relevant help-seeking source. For example, we later learned that a nurse is somebody all Somalis meet and regard as an important gatekeeper in the Norwegian health care system. This is also supported by earlier research[331] and should be included in later versions of the GHSQ. Other relevant help-seeking sources that could be considered in later studies are Skype and social media such as Facebook or VKontakte, a Russian social media similar to Facebook. This is because social media are increasingly popular channels of information on which immigrants base their decisions in the new country of settlement[332].

Also, the responses of the survey participants could be biased by factors such as lack of familiarity with questionnaires, and illiteracy. Some of the recently resettled Somali refugees seemed to be interested in participating in the survey; however, they did not understand how the questionnaire was supposed to be completed, even when questions were read aloud, or assistance in person was provided. Subsequent studies could consider using visual stimuli to address this research problem. The absence of sensitivity to these issues in the recruitment of participants for a survey or in a clinical situation may, in the worst case, raise ethical questions and also not to be correctly diagnosed.

8.2.4 The focus group interview (Paper 3)

While the use of focus groups as research method has demonstrated several benefits, for example, that they enhance the validity of a questionnaire by highlighting the concerns held by laypeople that would otherwise have been neglected[333], and the researcher can obtain information from the social dynamic between the focus-group participants, and non-verbal responses, such as facial expressions and body language, several limitations still need to be considered.

When researchers become instruments of data collection, language, both verbal and non-verbal, becomes an important issue[298]. In the focus-group interviews, the different cultural backgrounds of the interviewers and the respondents could have resulted in misunderstandings. The respondents' trust in the interviewers, the translator, and other participants, as well as feelings of shame and anxiety about the topic of study, may have affected their motivation to express their feelings and opinions. The interviews were conducted in Somali, thus requiring translation into Norwegian by an interpreter. The video was transcribed by the main researcher (me). While this results in a closer relationship with the data[298], the transcripts are also mainly based on what was translated by the translator (see Appendix 6 for transcript example). It could have been beneficial to check whether anything was missed, misinterpreted or inaccurate with a person who did not participate in the interviews but who understand Somali. However, as the consent letter stated that only the main researchers of the project could look through the video, we could not do that, because none of us speak the Somali language.

In addition, there are several limitations related to different group processes that need to be considered. For example, the data obtained may have been influenced by conformity, fear of evaluation by other group members or us, and the influence on individuals' views by particularly vocal or dominant participants (e.g., elderly group members or members with higher status)[334].

Lastly, we conducted only two focus groups. Even though more focus groups may have provided more information, recent findings indicate that most of the themes are discovered within two to three focus groups[335]. As a means of addressing these challenges, the findings were discussed several times with Somali resource persons and no new themes came up, supporting the assumption that no new themes would emerge through more focus group interviews.

8.3 Implication and Conclusions

"*There is nothing more unequal than the equal treatment of unequal people.*"

Thomas Jefferson

The purpose of the current thesis was to explore how specific immigrant groups settled in Norway interpret, view, and prefer to cope with symptoms of depression. A mixed-method study was conducted; the results provided knowledge of four ethnic minority groups with various cultural backgrounds and living time in Norway. Findings indicate both differences and similarities between ethnic groups examined. Preferences in coping and help-seeking differ by ethnic group, gender, level of education, and acculturation orientation. In this final section, practice implications will be discussed in more detail.

8.3.1 Practice implications

Our findings indicate that all ethnic groups will consider several illness explanations, coping behaviors, and help-seeking alternatives when handling depression. To facilitate the use of mental health care services, health care services must be patient-centered culturally sensitive. Patient-centered culturally sensitive health care implies being open towards exploring the personal, familial, and social consequences of different illness explanations and healing practices[336]. Extensive research has shown that culturally sensitive mental health care may increase access to, use of, and benefits of these services[31, 93, 337, 338]. Without such open dialogue, health professionals may blindly export the norms and values implicit in their mental health practices.

The current thesis also highlights the importance of informal help-sources such as friends and family for all ethnic groups. The informal help-sources seem to influence the coping strategies and help-seeking sources the layperson views as efficient and acceptable, and they also offer resources in terms of support and guidance. These results have implications for practice. Creating working alliances between the health professionals in the country of settlement, and the informal help-sources of the client might be critical for reaching individuals in need and for their acceptance of and compliance with treatment[209, 216]. Immigrants are often separated from their families and can have problems creating a new network in the country of settlement due to

factors such as language skills, discrimination, and poverty[17]. Religious organizations, ethnic communities, and trained bridge builders with the same ethnic background may be of great importance both as help-seeking sources and as bridge builders to formal health care for people with mental health problems[209, 339].

Our findings indicate that the differences between ethnic groups were particularly evident as regards choosing spiritual coping and traditional help-seeking sources. One implication of the results is that formal health services for immigrant patients should consider integrating formal, informal, and traditional sources, such as ethnic community members, religious leaders, and social networks when designing and implementing mental health services. This recommendation is in accordance with earlier studies that show that understanding the belief system and introducing a spiritual dimension to therapy may increase the efficacy of treatment among ethnic groups who are predominantly Muslim[340, 341]. Our findings also indicate that spiritual coping and traditional help-seeking sources may be of importance to Eastern European immigrant groups settled in Norway. Subsequent studies should examine how these groups benefit from culturally adapted interventions. Our findings indicate that traditional help-sources may be particularly important for men and those with a lower level of education. These are important factors to take into consideration when planning interventions.

Furthermore, our findings show that there may be differences in the understanding of terminology and "symptoms". This challenge the usefulness of assessment tools when working with different ethnic groups due to unfamiliar or unknown "symptoms" and language barriers. Sørheim[342] argues that health workers administer the symbolic power to define what is and what is not relevant knowledge. Different understandings of illness and treatment may lead to a reduced flow of information and asymmetrical communication between formal health services and immigrant patients[343]. Therefore, to improve the flow of information between the formal health professional and the layperson with an immigrant background, a reciprocal learning approach[209] may be

applied. First, proper information about the illness and treatment in available health services should be given to the patient and important people in the patient's social network (family, elders, religious leader). All information provided by the health professional should be adapted to the receiver; for example, immigrants with low levels of education and those who are not able to read should be given visual and oral information and information in their language (e.g., through video clips). This information can also be provided at places that the members of the ethnic groups thrust and where they usually seek help and information for mental health problems for example at a Mosque. Second, to adapt the information correctly, health professionals should be educated about the basic premises of different cultures and idioms of psychological and spiritual distress[209, 216], which will help facilitate trust and a good working alliance.

Also, our findings suggest that immigrants can be oriented both towards the Norwegian and the heritage culture at the same time. As a result, their understanding of illness, as well as their coping and help-seeking preferences seem to be a combination of aspects from both cultures, giving them a pattern of coping and help-seeking that differs from that of both native Norwegians and members of their heritage culture who are not in migration. The health professional must, therefore, understand the role culture plays for the individual patient, but not overplay it. In addition to being open towards other explanatory models and acknowledging the patient and family as respected persons whose religious and ethnic differences matter, the health professional must also gradually introduce the culture of the health system in the country of settlement and be clear about what he/she thinks is the appropriate treatment and why. According to Kirmayer[344], effective treatment *".. must appeal to values that are intelligible in terms of the individual`s cultural background even as it articulates the tension between traditions and new choices or opportunities brought by social change or migration. Every cultural community embodies a distinctive concept of the person and with it a particular vision of the good life."* Since not all such views of "*the good life*" may be equally desirable as some may give rise to forms of life unsustainable in a pluralistic

society, both clinical ethics and effectiveness demand careful awareness of potential discrepancies between the person inherent in the clinical encounter and the cultural models that underwrite the person's self-construal[344]. According to Kirmayer, a novel understanding of the person's problems introduced during the clinical encounter may be liberating for the client, but can also cause harm by destabilizing identities and relationships[344].

At a social level, more efforts should be made to improve the living conditions of the immigrant population generally and Somali refugees specifically. Somali respondents in Paper 3 mentioned the lack of social network and stressful life events as negatively impacting their coping preferences and well-being and that they regard depression as a reaction to stressful life events and situations many have experienced or continue to experience in the country of settlement. Although individual treatment (psychotherapy or medicine) is important, in order to improve the mental health of refugees, social policies should improve their living conditions by focusing on factors that are known to place strain on well-being, for example, the long refugee screening process, access to the labor market, and family reunification[51].

Octavio Paz (the Nobel Prize-winning Mexican poet and essayist): "*What sets worlds in motion is the interplay of differences, their attractions, and repulsions. Life is plurality, death is uniformity. By suppressing differences and peculiarities, by eliminating different civilizations and cultures, progress weakens life and favors death. The ideal of a single civilization for everyone, implicit in the cult of progress and technique, impoverishes and mutilates us. Every view of the world that becomes extinct, every culture that disappears, diminishes a possibility."*

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Appendix 1 - Invitation to participate in Survey

UNIVERSITY OF BERGEN
Department of Psychosocial Science

Bergen xxx

Kjære xx,

Jeg henvender meg til deg i forbindelse med mitt doktorgradprosjekt. Som del av prosjektet skal vi undersøke hvordan personer fra ulike kulturer og etniske grupper i Norge mener at psykiske helseplager best mulig kan håndteres. En målsetning er å få en bedre forståelse for hvordan psykiske helsetjenester i Norge kan tilpasses behovene til mennesker fra etniske minoriteter.

Prosjektet finansieres av Helse Vest og professor Gro Mjeldheim Sandal er min veileder. Prosjektet gjennomføres i regi av Society and Workplace Diversity Research Group ved Universitetet i Bergen (http://www.uib.no/en/rg/saw).

I forbindelse med prosjektet ønsker vi kontakt med de somaliske miljøene i Norge. Vi er i gang med en surveyundersøkelse og vil gjerne invitere mennesker av somalisk opprinnelse til å delta. Vi håper å få 150 til 200 respondenter. Derfor tar vi nå kontakt med ressurspersoner som kanskje kan hjelpe med å sende ut lenke til undersøkelsen eller oppfordre andre til å delta. Dersom du har epost eller kontaktlister som vi kan få benytte, vil vi også sette stor pris på det.

Alle som svarer på undersøkelsen er sikret full anonymitet.

Jeg gir gjerne mer informasjon om prosjektet og du kan kontakte meg på epost (valeria.markova@uib.no) eller telefon: 55 58 88 99

På forhånd tusen takk!

Med vennlig hilsen,

Valeria Markova
Stipendiat / psykolog

Street address:	Postal address:	Telephone:	Telefax:
Christiesgate 12	N-5015 Bergen, Norway	47-55 58 31 90	47-55 58 98 79

Appendix 2 - Survey invitation

Invitasjon (engelsk).

Survey

Many people experience mental health problems once or several times in their life, either themselves or among family members and friends. You are invited to participate in a survey about how people from different countries or ethnic groups think that one should best deal with such problems.

Your participation in the study is highly valuable to us. To participate, simply click on the link below or cut and paste the entire URL into your browser to access the survey.

<%MorpheusMailLink%>

The questionnaire is available in English and Norwegian.

We would appreciate your response within one weak after you have received this invitation.

If you have any question or experience technical difficulties please contact PhD-candidate Valeria Markova at valeria.markova@psysp.uib.no or 55 58 32 90

Sincerely,

Gro Mjeldheim Sandal
Professor
Department of Psychosocial science, University of Bergen,
Christiesgate 12, Bergen

Read more about the research group at: http://www.uib.no/en/rg/saw

Appendix 3 - Survey consent letter

Introduksjonstekst (engelsk)

INVITATION TO PARTICIPATE IN A STUDY

Many people experience sadness during periods of their life. The goal of this study is to gain knowledge about how people from different cultures or ethnic groups think that one should best deal with such feelings. This may provide a better understanding of how health services in Norway can be adapted to the needs of people from ethnic minorities.

The study is conducted by the Society and Workplace Diversity Group, Faculty of Psychology, University of Bergen. At our website (http://www.uib.no/rg/saw) you can read more about the group and our projects.

As a participant in this study we will ask you to read a brief paragraph about a person and then answer some questions about the best way to deal with the problems described. You will also be asked to answer some questions about yourself.

Your participation in the study is voluntary. All responses are confidential, and the data from this study are only reported as group data. The results will be presented in lectures and scientific papers nationally and internationally. A summary of the results will be posted at the research group's website after the study is finished in the end of 2016.

We hope that you are willing to participate in the study.

Should you have any questions, you may contact PhD-candidate Valeria Markova (valeria.markova@psysp.uib.no)

Kind regards

Gro Mjeldheim Sandal

Professor

Appendix 4 - Consent focus group

INVITASJON TIL Å DELTA I UNDERSØKELSE OM PSYKISK HELSE

Mange mennesker føler seg triste og nedstemte i perioder av livet. Målsetningen med denne studien er å få mer kunnskap om hvordan personer fra ulike kulturer og etniske grupper mener at slike følelser best mulig kan håndteres. Dette kan gi en bedre forståelse for hvordan helsetjenester i Norge kan tilpasses behovene til mennesker fra etniske minoriteter.

Undersøkelsen gjennomføres av forskningsgruppen Society and Workplace Diversity Group ved det Psykologiske fakultet ved Universitetet i Bergen. Du kan lese mer om forskningsgruppen på nettsidene våre (http://www.uib.no/rg/saw).

Som deltaker i undersøkelsen vil du delta i et gruppeintervju sammen med 4-5 andre personer. Først vil du få presentert en kort beskrivelse av en person. Deretter vil gruppen få spørsmål om hvordan denne personen best mulig kan håndtere problemene sine. Intervjuet vil ha en varighet på ca.90 minutter. Intervjuene vil bli tatt opp på video. I etterkant vil intervjuene bli transkriberte. Dette innebærer at all informasjon fra videoene vil bli nedskrevet. Deretter blir videoene slettet.

Det er frivillig å delta i undersøkelsen og du kan trekke deg fra undersøkelsen på et hvilket som helst tidspunkt uten å måtte gi noen begrunnelse. Du kan også nekte å svare på spørsmål eller å utdype svarene dine.

All informasjon vil bli behandlet strengt konfidensielt av forskerne. Når videoene blir transkriberte, vil informasjon bli anonymisert og kan ikke senere knyttes til deg eller andre deltakere. Ved presentasjon av resultater fra undersøkelsen vil disse ikke kunne knyttes til enkeltpersoner. Resultatene vil bli presentert i forelesninger og i vitenskapelige artikler nasjonalt og internasjonalt. Prosjektet vil pågå fram til slutten av 2017. Etter at prosjektet er avsluttet, vil du finne en oppsummering av resultatene på forskningsgruppens hjemmeside.

Vi håper at du er villig til å delta i undersøkelsen. Om du har spørsmål kan du kontakte prosjektleder professor Gro Mjeldheim Sandal (gro.sandal@psych.uib.no) eller doktorgrad-stipendiat Valeria Markova (valeria.markova@gmail.no).

Ved å signere dette skjemaet bekrefter du at du har lest denne informasjonen og at du er villig til å delta i undersøkelsen.

…… ……

Dato signatur

Street address:	Postal address:	Telephone:	Telefax:
Christiesgate 12	N-5015 Bergen, Norway	47-55 58 31 90	47-55 58 98 79

Appendix 5 - Question guide Focus group (male version)

Intervjuguide

1. Introduksjon om prosjektet, forskningsgruppen (fortell litt personlig om hvem du er) og rettighetene til deltakerne. Åpning for spørsmål. Frammøtte som er villige til å delta bes om å signere villighetserklæring. Taushetserklæring. Video. Ikke blir vist på TV. Tolk må også nevne sin taushetsplikt.
2. Deltakere oppfordres til å behandle informasjon som blir gitt av andre deltakere i intervjuene konfidensielt.
3. Kort presentasjon av gruppens medlemmer (alder, botid i Norge, bakgrunn)
4. Før presentasjon av vignett, presisere at "Tenk deg at du er en god venn av Ali".

Presentasjon av vignett:

Xx

5. Du er Ali sin venn, hva ville du råde Ali til å gjøre? Hvilken råd vil du gi han?
6. Spørsmål: Tror du det vil være forskjeller på hvordan mennesker fra Somalia tenker, og hva ville nordmen ha anbefalt Ali å gjøre i denne situasjonen?
7. Ali er fra din etniske gruppe, hvor tror du han ville søke hjelp? Ville du søke hjelp hos lege? Ville du søke hjelp hos psykolog. Hvorfor?
8. Spørsmål: Mener du at noe er i veien med Ali? I så fall, hva?
9. Spørsmål: Hva kan være forklaringen på at Ali har det på denne måten?
10. Spørsmål: Om dette skulle være en kvinne som hadde tilsvarende problemer, hvordan ville dere tenkt da?

Praktisk

- ha med kamera og opptaker
- Ha dem sittende i en halvsirkel, og sitte på samme nivå som dem.
- Kjøpe inn frukt, te, kaffe, kjeks

Appendix 6 - Example Transcript of focus group discussion

Women group

Meaning: K (number) = Women participant Tolk = the translator R (number) = Researcher

K5: Maybe.. I think.. I think like that! For most of the women I believe in Somalia they are having a little bit... of a fearness in the past..fearness, something in the past.

K6: But she, she @@@ living in Norway. She is not from Somalia

K5: ah I forgot. (ler).. ok..

R2: hva vil du råde henne sånt at hun skal bli bedre?

Tolk: @@

K5: @@@@@

K1: @@@@@

K6: @@@@@

Tolk: De sier at siden hun er født i Norge,.. så hun har ikke opplevd krig og sånt ting.. men det kan hende at noe har skjedd..noe som gjør det vondt... Så K1 sier at kanskje hvis hun gifter seg, så vil alt bli bedre. (ler)

R1: Ja.. ok (nikker)

(alle kvinner smiler og nikker)

K1: Ja! @@@@@

K6: (ler)

K1: (ler)

Tolk: Kanskje hvis hun gifter seg kanskje med noen..(kort pause) finner seg en mann så vil livet forandre seg, de blir sammen, hun blir gravid.. kanskje hun får en baby. Det blir da et helt annet liv egentlig, på en måte... Hvis noen har blir sånn i Somalia, så må de gifte seg med en gang. Så blir de bedre!

R2: Så i Somalia vil man først prøve å komme ut av det?

I

How Do Immigrants from Various Cultures Prefer to Cope with Depression? Introducing the Cross-Cultural Coping Inventory

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Keywords: coping1, coping inventory2, depression3, immigrant4, acculturation5, russian6, Somali7, Pakistani8, Polish9

Abstract

A domain-specific coping inventory scale was developed to assess the different ways in which people with various migrant backgrounds prefer to cope with depression. The Cross-Cultural Depression Coping Inventory (CCD-CI), is a vignette-based instrument, which was developed in one study divided into two parts. In Part one, the dimensionality of the instrument was explored. In Part two, the ability of the CCD-CI to differentiate between ethnic groups and the relationships between CCD-CI factors and immigrants' acculturation orientations were explored. The study was constructed with a sample of immigrants from Russia (n = 164), Poland (n = 127), Pakistan (n = 128), Somalia (n = 114), and Norwegian students (n = 248). The final scale consisted of 21 items; the analysis supported a three-factor solution labelled; Engagement, Disengagement, and Spiritual Coping. The factors were conceptually meaningful, and factorial agreement across ethnic groups was found. In Part two, most of our hypotheses were supported, illustrating the promising validity of the instrument. In addition to initial validation, this study also allowed an initial examination of how various migrant groups prefer to cope with depression. Our results indicate cultural differences in coping preferences related to all coping strategies. Differences between groups were particularly great when it comes to preferences for spiritual coping. Somali and Pakistani respondent groups preferred spiritual coping more than other ethnic groups, while the Russian and Polish respondent groups preferred spiritual coping more than the Norwegian respondent group. Acculturation was measured with the Vancouver Index of Acculturation (VIA). Engagement coping preferences were positively associated with maintenance and adoption acculturation orientation, while spiritual coping preferences were positively associated with maintenance acculturation orientation and negatively associated with adoption acculturation orientation. Differences between ethnic groups observed support the need for a domain-specific culturally adopted coping instrument as well as research on clearly defined ethnic groups. Recommendations on how to improve the scale are discussed.

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Number of tables: 5

1 Introduction

According to the World Health Organization (2017), depression is the single largest contributor to global disability. While depression is common in all parts of the population, research shows that the prevalence is higher among immigrants from low-income countries and refugees when compared to the general population (Lindert et al., 2009;Kale and Hjelde, 2017). However, previous studies have shown ethnic differences in the use of public health services (Straiton et al., 2017) and that some immigrant groups are less frequently referred to mental health specialists than natives (Jensen et al., 2013). Research is sparse on how different immigrant groups prefer to cope with mental health problems including depression, and how coping preferences may be related to immigrants' acculturation orientations (Kuo, 2014;Kale and Hjelde, 2017). There is currently a lack of adequate methods to further advance the research in this field; especially culture-sensitive, domain-specific coping inventories are missing (Kato, 2015). The present study aims to contribute to filling this methodological gap by introducing a new instrument designed to capture ethnic differences in views about efficient depression coping strategies. A better understanding of the roles of culture in the process of coping with depression can lead to better integration of cultural specificities into assessment, counseling, and educational activity.

In the present study *coping* is understood as constantly changing cognitive and behavioral efforts to manage specific internal or/and external demands that are appreciated as a stressor (Lazarus, 1999). Depression has been viewed as a mental condition of helplessness and hopelessness due to lack of perceived ability to cope (Levine and Ursin, 1991). However, depression is an adverse condition that people may try to overcome in different ways (Lucock et al., 2007), for example, by help-seeking from various sources, social isolation, taking medications or cognitive reformulation. Strategies differ in efficiency, and some may even exacerbate the disease (Aldao et al., 2010).

During the past decades, several classifications of coping strategies have been suggested on theoretical grounds (Skinner et al., 2003;Kato, 2015). Searching for the structure of coping, Skinner et al., (2003) identified 400 ways of coping and recommended not to use the most common classifications of coping, such as problem- vs. emotion-focused coping proposed by Lazarus and Folkman (1984). According to Skinner (2003), those classifications do not take into consideration that any given way of coping is likely to serve many functions and that all ways of coping are multidimensional. Current literature on coping also points out limitations on how coping strategies are measured. Frequently used coping scales such as the COPE (Carver et al., 1989) and Ways of Coping Questionnaire (WCQ) (Folkman and Lazarus, 1988) are broad and general, and often not suitable to assess responses to specific stressors such as depression (Ben-Porath et al., 1991;Kato, 2015). For example, one study reported that about 20 % (range: 2.1-83.9%) of the WCQ items did not apply to the stressors described by the individual participant (Ben-Porath et al., 1991). Another limitation is that coping scales tend to overlook the cultural context in which coping occurs (Kuo, 2011;Hagmayer and Engelmann, 2014;Kuo, 2014).

While some aspects of depression might be universal, a growing body of research suggests that cultural differences exist in how people interpret and choose to cope with depression (Erdal et al., 2011;Hagmayer and Engelmann, 2014). For instance, a study among the Ganda in Uganda (2006) found that when witchcraft was suspected as the cause of depression, help from traditional sources and spiritual coping was sought, while Western medicine was preferred when the depression was attributed to somatic causes. In recent years several scholars have tried to take this into account and adapt domain-general coping scales like COPE and WCQ to various ethnic populations and cultural settings (Kuo et al., 2006;Wong et al., 2010;Kasi et al., 2012;Cobb et al., 2016). However, the

problem persists, those measures also include items that are not relevant for certain types of stressful episodes such as depression (Rohde et al., 1990;Kato, 2015).

In this paper, we introduce a new instrument, the Cross-Cultural Depression Coping Inventory (CCD-CI). The CCD-CI was developed to offer a culturally sensitive instrument that could be used to add to our understanding of how different immigrant groups prefer to manage depression.

This paper consists of two parts. In Part one, we describe how CCD-CI was developed and examine the dimensionality of the instrument. In Part two, we examine the ability of the CCD-CI factors to differentiate between ethnic groups and the relationships between the CCD-CI and the immigrants' acculturation orientations. As in previous studies on coping preferences (Kuo, 2011), our approach is based on the understanding that scientific knowledge is culturally situated, which implies that knowledge is dynamic and must be interpreted in relation to society and the context in which it is created.

Our study focuses on the belief of laypeople rather than a clinical population. Laypeople refer to persons who do not have professional knowledge of mental health treatment and disorders. The high prevalence of depression among the general population and specifically among the migrant population suggests that a large proportion will either experience depression themselves or must cope with members of their close network who experience it (Kale and Hjelde, 2017;Straiton et al., 2017). Research indicates that the social network has a strong influence on mental health service utilization and choice of coping strategies (Kuo et al., 2006;Hagmayer and Engelmann, 2014); thus the view of laypeople may be highly informative about how people experience and deal with depression.

2 Part 1: Development of the Cross-Cultural Depression Coping Inventory

2.1 Approach

The CCD-CI was developed using a combined emic and etic approach. The *emic* approach strives to describe a particular culture in its own terms, whereas an *etic* approach attempts to describe differences across cultures in terms of general, external standards (Berry, 1990).

We started with an etic approach, building on an instrument previously used in a small-scale study among immigrants in Norway by Erdal and colleagues (2011). The instrument included a vignette describing a depressed person and follow-up questions about appropriate coping behavior (Erdal et al., 2011). There are several benefits with using a vignette methodology. Focusing on a fictive person can be beneficial when addressing sensitive topics where the respondents may feel uncomfortable referring to their personal experiences and may reduce bias from social desirability. Also, the use of a vignette gives the possibility to examine different groups' interpretations of a "uniform" situation and minimizes the effects of cultural and linguistic differences (Peng et al., 1997;Evans et al., 2015). In the CCD–CI, a slightly modified version of the vignette developed by Erdal and colleagues was used to cover the diagnostic criteria for depression in the International Classification of Diseases-10 (ICD-10) (World Health Organization, 2011). Out of 20 items in the original instrument, nine items were retained. Items covering social support were excluded as the importance of this factor for coping with mental health problems has been established in previous research (Kuo et al., 2006;Erdal et al., 2011;Hagmayer and Engelmann, 2014).

In the second step, we applied an emic approach. To avoid an ethnocentric bias in the coping behaviors listed, researchers from several disciplines (anthropology, social work, psychology) and laypeople from many countries (including from Somalia, Pakistan, Russia, Poland and Norway)

reviewed the nine items and were invited to suggest additional items to cover coping behavior that could be relevant in other cultural contexts. We also reviewed frequently used coping instruments, including Ways of Coping Questionnaire (Folkman and Lazarus, 1988), COPE (Carver et al., 1989), and Utrecht Coping List (Schreuers et al., 1993).

Because the meaning of items may differ across ethnic groups, the next step involved eliminating items with possible unfamiliar or unambiguous content. This was achieved by inviting cultural brokers (persons who are familiar with both Norwegian and heritage cultures) from Russia, Somalia, Pakistan, and Poland to review the items in terms of relevance and language accuracy.

Finally, the selected pool of items was reviewed by a panel of researchers to reduce overlapping items, to facilitate readability and face validity. The final version of CCD-CI that is used in this study consists of 28 items.

2.2 Method

2.2.1 Participants

The dimensionality of the CCD-CI was tested on immigrants from Poland, Russia, Somalia, and Pakistan settled in Norway, as well as a Norwegian student sample. The term 'immigrant' in this study refers to a person who either has immigrated to Norway or who is Norwegian born with two immigrant parents. Those immigrant groups were chosen because they represented some of the largest immigrant groups in Norway at the time of the data collection. On a group level, the immigrant groups chosen differ according to years lived in Norway and reason for migration (including both labor migrants and refugees). A total of 533 respondents from four immigrant groups in Norway took part in the study. Also, data from Norwegian students (N = 248) were used in parts of the analyses to develop the CCD-CI. Among the respondents, 79 out of 781 responses had more than 30 percent missing data points and were excluded from all statistical analyses. Hence, the sample used in the analysis consisted of 702 respondents of Norwegian (N =225, females 67%), Russian (N = 151, females 87%), Polish (N = 109, females 77%), Pakistani (N = 117, females 65%), and Somali (N = 101, females 49%) origin. The sample size was decided following a power analysis. Power analysis was conducted with G*Power, version 3.0.3 (Faul et al., 2009). Setting alpha to .05 (two-tailed), power (1-β) to .80 and setting effect sizes (Cohens d) to 0.2 (small), 0.5 (medium) and 0.8 (large) comparing five groups shows that a total of 1200, 200 and 80 respondents were needed, respectively. As we recruited about 100 subjects from each immigrant group, we were accordingly able to detect small-to-medium and larger effect sizes.

The gender distribution differed significantly across samples, χ^2 (4, N = 702) = 46.19, $p < .001$. The Somali respondent group was the only group with equal gender distribution; the Russian respondent group had the largest proportion of female respondents. The age of the respondents ranged from 18 to 64 years, with a mean of 30.4 (SD = 9.1) for the whole sample. The means for the subsamples ranked from 27.3 (SD = 7.0, Norwegian) to 34.8 (SD = 8.5, Russian origin). One-way analysis of variance showed that age differed significantly between the immigrant groups, F(4, 1861) = 25.64, $p < .001$. The respondents also differed regarding years of residence in Norway. The respondents of Polish origin had the shortest residence time in Norway (M = 6.1, SD = 5.2), with 2% of respondents being Norwegian-born to immigrant parents, followed by respondents from Russia (M = 7.92, SD = 5.83), with 4% of respondents being Norwegian-born to immigrant parents, Somalia (M = 9.31, SD = 7.13), with 4% of respondents being Norwegian-born to immigrant parents and Pakistan (M= 16.70, SD= 8.80), with 69% of the respondents being Norwegian-born to immigrant parents.

2.2.2 **Measures**

The first part of the survey consisted of questions about demographics, including age, gender, years of formal education, and residence time in Norway. Respondents were then asked to read the vignette. The gender of the vignette character was matched to the respondent to facilitate identification. The vignette was as follows:

"John/Ann is a 27-year-old waiter in a restaurant in Bergen. He/she was born in Oslo to parents who were restaurant owners but has made Bergen his/her home for 5 years. In the last few weeks, he/she has been experiencing feelings of sadness every day. John/Ann's sadness has been continuous, and he/she cannot attribute it to any specific event or to the season. It is hard for him/her to go to work every day; he/she used to enjoy the company of his/her co-workers and working at the restaurant, but now he/she cannot find any pleasure in this. In fact, John/Ann has little interest in most activities that he/she once enjoyed. He/she is not married and lives alone, near his/her brother/sister. Usually, they enjoy going out together and with friends. But now, he/she does not enjoy this anymore. John/Ann feels very guilty about feeling so sad and feels that he/she has let down his/her brother/sister and friends. He/she has tried to change his/her work habits and start new hobbies to become motivated again, but he/she cannot concentrate on these tasks. Even his/her brother/sister has now commented that John/Ann gets distracted too easily and cannot make decisions. Since these problems began, John/Ann has been sleeping poorly every night; he/she has trouble falling asleep and often wakes up during the night. A few nights ago, as he/she lay awake, trying to fall asleep, John/Ann began to cry because he/she felt so helpless."

The respondents were asked to indicate their agreement with statements about coping strategies and acculturation orientations on a 6-point Likert scale (1: *strongly disagree*, 6: *strongly agree*). There was a slight difference between the instrument administrated to the immigrant samples and the native sample. The item "*John/Ann should pray or get someone to pray for him*," was formulated as two items in the instrument given to the Norwegian sample "*John/Ann should pray to God*" and "*John/Ann should ask others to pray for him"*. Because the mean and standard deviation for the two items were rather similar 1.76 (*SD* = 1.18) and 1.66 (*SD* = 1.16) respectively, the means scores of the two items were collapsed into one item to make comparisons between the samples on these items possible.

2.2.3 **Procedure**

Immigrant sample: The survey was distributed and collected on paper (n = 33) or online (n = 500). Only the respondents with Somali origin were offered the possibility to answer the survey on paper. Parts of the Somali data have been presented in a previous paper (reference omitted for review purposes). As for the online survey, the respondents were recruited through social network sites (e.g., Facebook). *Norwegian student sample:* The survey was distributed online. A research assistant invited respondents to participate in the study via a private message on Facebook or by email. The students were recruited mainly from higher education institutions in Norway, from different academic disciplines; 30% humanities (e.g. pedagogy), 30% social sciences (e.g. economics), 11% natural sciences (e.g. chemistry), 16% medicine (e.g. nursery) and 13% from formal science and professions (e.g. law and real estate management).

The study was approved by the Regional Committee for Medical and Health Research Ethics and the Norwegian Social Science Data Services. The respondents were informed that their responses would be anonymous and about how the data would be stored and reported. After reading information about the project, respondents provided their consent by pressing the "next" button in the online version or

signing a declaration of consent for those who completed the survey on paper. Only those who actively expressed consent received the online link or the paper version of the survey. Respondents with Norwegian, Somali and Pakistani origin could choose to answer the survey in English or Norwegian. Respondents with Russian and Polish origin could, in addition, choose to answer the survey in Russian and Polish, respectively. Translations were conducted using a traditional translation-back-translation procedure, comparing versions to maximize technical, semantic, content and conceptual equivalence.

2.2.4 **Analysis**

SPSS 24.0 was used for all statistical analyses. The statistical analysis comprised three parts. First, a principal component analysis (with Varimax rotation) of all items in the CCD-CI was conducted to extract coping strategies that tend to be used simultaneously. Items with loadings below .40 or cross-loadings of .40 or higher on two or more factors were removed (Howard, 2016). In addition, a modified parallel analysis was conducted to establish the number of factors. Second, factor loadings obtained in the various ethnic groups were compared to examine structural equivalence (to establish the identity of the factors across ethnic groups). Third, internal consistencies (alpha coefficient) for all scales for all ethnic groups were established.

2.3 Results

2.3.1 **Factor structure of the CCD-CI**

A principal component analysis yielded seven factors with eigenvalues exceeding one, accounting for 55% of the total variance. A scree plot and parallel analysis supported a 4-factor solution, accounting for 43% of the total variance. Two items were deleted due to cross-loadings ("*John/Ann should get married"* and "*John/Ann needs to reassess his/her life situation"*). Four items ("*John/Ann should start using herbs and natural remedies*", "*John/Ann should get more rest*", "*John/Ann should talk courage into him/herself*", "*John/Ann should stay at home and not work until he gets better*") were deleted because of low factor loadings. In addition, one item was deleted because the content diverged from the other items with high loading on the factor *("John should find a partner*" in factor spiritual coping). Thus, the final version of the CCD-CI consists of 21 items. Bartlett's test of sphericity was significant, and the Kaiser-Mayer-Olkin measure of sampling was acceptable (.83). The final 4-factor solution accounted for 50% of the total variance (Table 1).

We labeled the first-factor *engagement coping* because the items refer to direct actions and personal adjustment to manage both problems- and emotion-focused aspects of depression: seeking physical activity, expressing emotions; this factor explained 14% of the variance. We labeled the second-factor *disengagement coping* because the items refer to attempts to physically or emotionally separate oneself from the depressive thoughts: avoid thinking too much and keep himself/herself busy with work; this factor explained 14% of the variance. We labelled the third-factor *spiritual coping* because the items concerned reconciliation with God and prayer; this factor explained 12% of the variance. The fourth factor was labelled *avoidance coping* because this factor comprised self-blame and avoidance; this factor explained 11% of the variance. A principal component analysis including only the immigrant sample, gave a similar factor structure, explaining 48 % of the total variance.

Insert Table 1 about here

2.3.2 Structural equivalence

Tucker's phi was calculated to estimate the degree of factorial similarity between ethnic group datasets and the pooled solution. The values of Tucker's phi were very high, over .96 for all factors for all countries (mostly .99 or 1), which provides strong evidence for the equivalence of each of the four scales across all groups.

2.3.3 Reliability analysis

Cronbach's alpha values were acceptable for three factors (engagement, disengagement, and spiritual coping) but not for the fourth factor (avoidance coping), which was therefore excluded from further analysis (see Table 2).

Insert Table 2 about here

2.4 Discussion

In the first part of this paper, we have examined the dimensionality of the CCD-CI. The principal-component analysis resulted in four factors labeled *engagement*, *disengagement*, *spiritual* and *avoidance* coping, and explaining 50% of the total variance. Most items showed the highest loading on the former two factors, in line with previous research where factors with similar items were identified(Carver and Connor-Smith, 2010;Kato, 2015). Spiritual coping emerged as a separate factor. Our findings thus support the view that spirituality adds a distinctive dimension to the coping process (Pargament, 2011;Kato, 2015). The fourth factor, avoidance coping, had low reliability and was therefore excluded from coping in earlier studies, which have also shown low reliability (Kato, 2015). High value on Tucker's phi indicates factor similarity across different groups.

3 Part 2: Coping, Cultural Differences, and Immigrants Acculturation Orientations

4 Introduction

The second part of this paper examined the ability of the CCD-CI factors to differentiate between ethnic groups and the relationships between the CCD-CI factors and the immigrants' acculturation orientations.

4.1.1 Cultural differences in preferences for coping strategies

Earlier studies have reported cultural differences in coping preferences (Erdal et al., 2011;Kuo, 2014). For example, Erdal et al., (2011) suggested that immigrants of non-western origin differed in coping preferences in cases of depression, compared to native-born Norwegians. They found that differences were particularly salient for spiritual coping. The immigrant groups included in this study differ in their religious orientation. Somali and Pakistani immigrants are among the largest Muslim immigrant groups in Norway (Østby, 2016) and are known to be practicing Muslims also in migration (Gladden, 2012;Padela et al., 2012). Earlier studies have shown that both immigrant groups may become more spiritually oriented following migration (Gladden, 2012;Akhtar, 2014) and that they may engage in religious activities as a coping mechanism in response to stress at higher rates relative to other non-Muslim immigrant groups (Bhui et al., 2008). Research on coping preferences among immigrants from Eastern Europe is limited (Kale and Hjelde, 2017). While both Russian and Polish migrants come from former communist nations where secular beliefs were encouraged (Massey and Higgins, 2011), those groups seem to differ in their spiritual orientation and preferences in coping. The Polish group has been reported to be spiritually oriented in their coping preferences (Büssing et al., 2016;Guribye et al., 2018), even in migration. The Russian ethnic group

has been reported to be highly secular, becoming even more secular with migration (Massey and Higgins, 2011). The Norwegian ethnic group has also been described as one of the most secular, ethnic groups in the world (World Values Research, 2015).

On this background, we hypothesized that:

H1: Immigrants from Somalia and Pakistan will show a stronger preference for spiritual coping than immigrants from Russia and Poland and the Norwegian student sample.

H2: Immigrants from Poland will show a stronger preference for spiritual coping than immigrants from Russia and the Norwegian student sample.

4.2 Coping and Acculturation

Acculturation and coping are interconnected; broadly, one can say that acculturation is coping with a new and unfamiliar culture (Berry, 1997;Yoon et al., 2013;Sun et al., 2016). At the group level, the acculturation process involves modifying heritage culture practices to accommodate the practices of the new mainstream culture (Berry, 1997). At the individual level, aspects of self-identity, including, but not limited to, attitudes, and behaviors, are adapted to adjust to the new culture's mainstream (Ryder et al., 2000). According to Berry (1997), one does not exclude the other; migrants can maintain or neglect their home culture while simultaneously participating and acquiring values, attitudes, and behaviors related to the culture of settlement. One implication is that immigrants may keep the traditional coping preferences from their home culture (*maintenance acculturation orientation*) despite long residence time and adoption to the mainstream culture (*adoption acculturation orientation*) in many domains.

Previous research on the relationship between coping preferences and acculturation orientation suggests that engagement coping is associated with both adoption and maintenance acculturation orientation (Kuo, 2014), while preferences towards spiritual coping are negatively associated with adoption acculturation orientation, especially for Muslim immigrants (Friedman and Saroglou, 2010;Mölsa et al., 2010).

On this background, we hypothesized that:

H3: Engagement coping strategies are positively related to both adoption and maintenance acculturation orientations.

H4: Spiritual coping strategies are positively related to maintenance acculturation orientation.

4.3 Method

4.3.1 Participants

Part 2 includes the same participants as in Part 1.

4.3.2 Measures

The Vancouver Index of Acculturation (Paulhus, 2013) (VIA) was used to measure acculturation orientation. The inventory consists of 20 statements assessing interest and participation in one's heritage culture (10 items, maintenance) and the mainstream (Norwegian) culture (10 items, adoption). Each item was rated on a 9-point Likert scale (1 "totally disagree" to 9 "totally agree"). The average of the ten items of each subscale was computed, providing scale scores for "Maintenance" and "Adoption." Internal consistencies of the scales are $\alpha = .90$ and $\alpha = .90$.

Cronbach's alphas for the subscales in the Somali, Pakistani, Polish and Russian samples were .88, .93, .89, .88 respectively for the Maintenance subscale and .88, .90, .89, .88 for the Adoption subscale.

4.3.3 Analysis

First, the Persons product-moment correlation analysis was conducted to explore the relationship between preferred coping strategies (engagement, disengagement, and spiritual coping), acculturation orientation (only immigrant sample), and background variables. Then differences in means between all immigrant groups were assessed by a multivariate analysis of variance (MANOVA) with Tukey's post-hoc tests. Finally, a hierarchical multiple regression analysis was conducted to investigate whether the coping preferences explained acculturation orientations when controlling for gender, age and years of higher education for the immigrant sample. Age was controlled for in partial correlation analysis and an ANCOVA, but no significant differences were observed (results not shown).

4.4 Results

4.4.1 Subscale intercorrelation and relations with acculturation orientation, control variables, and background variables.

The correlational analysis (Table 3) showed that all three coping strategies were positively associated with each other. Engagement coping was positively associated with both maintenance and adoption acculturation orientation, whereas disengagement coping was positively associated only with maintenance acculturation orientation. Spiritual coping was positively associated with maintenance acculturation orientation and negatively associated with adoption acculturation orientation. Engagement coping correlated positively with age, and with years of higher education and spiritual coping correlated negatively with years of higher education. Significant gender differences were found, being male correlated positively with preferences towards disengagement and spiritual coping.

Insert Table 3 about here

4.4.2 Differences across ethnic groups in coping preferences

Table 4 presents the results from the MANOVA with Tukey's post-hoc tests with factor scores as dependent variables and ethnic group affiliation as an independent variable. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, and multicollinearity, with no serious violations noted. Levene's test, however, showed that the assumption of the equality of variances was violated. In line with recommendations by Tabachnick and Fidell (2013), a more conservative alpha (.025) level was therefore used. Three coping preferences varied significantly between ethnic groups: Engagement coping ($F(4, 696) = 5.453$, $p < .00$, $\eta 2 = .030$), Disengagement coping ($F(4,696) = 14.604$, $p < 0.000$, $\eta 2 = .077$) and Spiritual Coping ($F(4,696) = 128.017$, $p < 0.000$, $\eta 2 = .424$). The Russian respondents showed a significantly stronger preference for engagement coping than respondents from Norway, Somalia, and Poland. Post-hoc tests indicated that the mean score for respondents with Russian origin was significantly different from the Somali immigrant sample with a small effect size (d=0.38) and with medium effect size from the Polish immigrant sample (d=0.59), and the Norwegian student sample (d=0.60). Differences between groups were also found for disengagement coping; post-hoc tests indicated that the mean scores of respondents with Somali and Pakistani origin were significantly higher than the Polish immigrant sample and the Norwegian student sample with medium effect size (d=0.70). The greatest group differences were found for spiritual coping. Specifically, the Somalian respondents showed a stronger preference for spiritual coping than respondents from the other groups. Post-hoc

tests indicate that the mean score for respondents with Somali origin was significantly different from the Pakistani immigrant sample with medium effect size (d=0.72), and with large effect size from the Russian (d=1.70), and Polish (d= 1.70) immigrant samples and Norwegian student sample (d=2.40). The mean score for the Pakistani immigrant sample was also significantly higher with a large effect size from the Russian (d=1.01) and Polish immigrant sample (d=1.00), as well as the Norwegian student sample (d=1.00). The means of the Russian- and Polish immigrant samples were significantly higher with medium effect size from the Norwegian student sample (d=0.72 and d=0.56).

Insert Table 4 about here

4.4.3 **Hierarchical multiple regression analysis**

Finally, a hierarchical multiple regression analysis was carried out (see Table 5). Demographic variables (gender, age, and education level) were entered in the first block, followed by the three coping strategies in the second block. Missing data were handled with pairwise deletion. The results of the regression analysis showed that acculturation orientation maintenance was no longer associated with disengagement coping preferences when controlling for age, gender, and education level. Preferences towards engagement and spiritual coping explained a significant portion of the variance in both adoption and maintenance acculturation orientation. The level of education and age accounted for a significant portion of the variance in adoption acculturation orientation. Those who were older or had more years of higher education endorsed adoption acculturation orientation more than those who were younger or had fewer years of education.

Insert Table 5 about here

4.5 Discussion

In Part two, we examined the ability of the CCD-CI factors to differentiate between ethnic groups and the relationships between the CCD-CI and the immigrants' acculturation orientations.

4.5.1 **Differences between ethnic groups (H1 & H2):**

In line with our first hypothesis, respondents with Somali and Pakistani origin prefer spiritual coping to a greater extent than other ethnic groups in this study. This is in accordance with previous research (Bhui et al., 2008;Gladden, 2012). The second hypothesis was partly supported; respondents with Polish origin prefer spiritual coping to a greater extent than the Norwegian student sample but do not significantly differ from the respondents with Russian origin.

4.5.2 **Coping and acculturation (H3 & H4):**

Both our predictions were supported. In line with our third hypothesis, preferences towards engagement strategies are positively associated with both maintenance and adoption acculturation orientation. This is in accordance with previous research (Kuo, 2014). Furthermore, in line with our fourth hypothesis, preferences of spiritual coping were negatively associated with adoption acculturation orientation consistent with the results of other studies (Friedman and Saroglou, 2010;Mölsa et al., 2010).

5 General Discussion

This paper consisted of two parts. In Part one, applying emic and etic approaches, we developed a new domain-specific coping inventory to assess preferences towards coping strategies used by various ethnic groups in case of depression. This kind of inventory has been sought in recent

literature (Hagmayer and Engelmann, 2014;Kato, 2015). Factorial procedures were applied to examine the dimensionality of the instrument. The analysis suggested that coping preferences are best represented as a multidimensional construct, a finding that is consistent with previous research (Lazarus and Folkman, 1984;Skinner et al., 2003). Three factors with acceptable internal consistencies emerged, which were labeled *Engagement*, *Disengagement*, and *Spiritual Coping*. The second part of this paper examined the ability of the CCD-CI factors to differentiate between ethnic groups and the relationships between the CCD-CI and the immigrants' acculturation orientations. Most of our hypotheses were supported, indicating promising validity of the instrument.

5.1 The dimensionality of the CCD-CI

The three factors identified by our analyses were conceptually meaningful. Most of the items in the survey loaded on the two factors labeled engagement and disengagement coping (Carver and Connor-Smith, 2010). The third factor *Spiritual Coping* added a distinctive dimension to the coping process (Pargament, 2011;Kato, 2015). This is an important contribution as frequently used coping scales have, for a long time, been criticized for ignoring the importance of spiritual coping as a central distinctive coping strategy (Kato, 2015). All in all, the results of the present study were broadly consistent with the results of other factor-analytic studies of coping (Kato, 2015).

There were differences between ethnic groups in preferences towards all three coping factors. This supports earlier studies that have reported cultural differences in coping preferences (Bhui et al., 2008;Kuo, 2011). Although the target groups may not necessarily understand the described symptoms like *depression* in a western bio-medical sense of the term, the instrument allows for the investigation of culturally sensitive responses to specific behavioral traits associated with depression. Thus, the instrument addresses previously found shortcomings with coping measures that rely on broadly applicable, domain-general coping scales, and that largely overlooks the cultural context in which coping occurs (Erdal et al., 2011;Hagmayer and Engelmann, 2014;Kato, 2015;Alemi et al., 2016). In addition, the findings of the present study suggest that the coping strategies were interrelated. This is consistent with previous studies (Tobin et al., 1989;Wong et al., 2010) and supports the view that people typically use a mixture of several types of coping strategies, which may change over time (Mölsa et al., 2010).

The Pakistani and Somali immigrant groups choose all three coping strategies to a greater extent than the Norwegian student group. This may indicate a distinctive culturally related coping style. Wong et al.(2006) argued that individuals from collectivistic or more eastern cultures could embrace paradoxical and dualistic forms of beliefs that influence coping. For example, earlier studies have shown that both Pakistani and Somali immigrant groups might simultaneously subscribe the reason for depression to culturally influenced beliefs that can be characterized as spiritual (e.g., Jinn possession) and/or situational (e.g., isolation in the new country) problems (Mölsa et al., 2010). Due to the assumed multicausal nature of mental distress, many different coping strategies may seem appropriate. However, we cannot exclude the possibility that also response bias, such as social desirability, has led to high correlations between the coping scales.

5.2 Engagement and disengagement coping

In line with previous studies (Kuo et al., 2006;Cobb et al., 2016), our findings indicate that there are differences between ethnic groups' preferences towards disengagement coping. Researchers have previously suggested that disengagement or avoidance would typically occur if people experience that they have insufficient resources to manage the situations (Cobb et al., 2016). Furthermore, disengagement has typically been associated with depression, as well as psychopathology more

generally (Aldao et al., 2010;Orzechowska et al., 2013), while engagement has been linked with less psychopathology and been described as a more efficient coping strategy (Rohde et al., 1990). However, when investigating differences between ethnic groups, researchers have perhaps surprisingly found that disengagement coping may also be associated with more positive psychological outcomes for some groups (Kuo et al., 2006;Cobb et al., 2016). Kuo et al.(2006) argue that preference towards disengagement strategies may sometimes be motivated by the preferences observed in many collectivistic cultures for interdependence and preservation of social harmony. In our study, immigrants from more collectivistic oriented cultures (Somalia and Pakistan) do seem to be the groups most inclined to prefer disengagement strategies. However, we have no information about how this may be associated with mental health outcomes.

The mean score for engagement coping was high for all ethnic groups indicating that all ethnic groups would consider this coping strategy when handling depression. This is consistent with earlier findings (Kuo et al., 2006). Some differences between ethnic groups were found. Russian respondents seem to be slightly more favorable towards this coping strategy than other ethnic groups. However, the differences found are minor, and they may be due to response bias. The reliability score for the engagement factor was low for the Russian sample; also, the Russian sample had the highest average level of education and the highest proportion of female respondents, which could also have influenced the results.

In accordance with our hypotheses, for immigrant samples, preferences towards engagement coping were associated with maintenance and adoption acculturation orientation. These findings may indicate several things, for example, that engagement coping strategies immigrants use may be consistent with norms in both heritage culture and the country of settlement. For example, Mölsa et al.(2010) showed that for Somalis in exile, coping strategies both persist and change as a result of the encounter with the Finnish biomedical system and to new religious interpretations by Somali religious scholars in Finland. What constitutes engagement coping for the specific immigrant groups examined in this study may be examined through a qualitative approach in later studies.

5.3 Spiritual coping

Differences between ethnic groups were most considerable in preferences towards spiritual coping. Even though our findings support earlier findings reported by Erdal et al. (2011) who demonstrated that the differences in coping preferences towards spiritual coping are largest between non-western and western groups, our findings show that respondents from Poland and Russia also significantly differ from Norwegian respondents when it comes to spiritual coping. The result is in the lines of earlier literature (Kasi et al., 2012;Büssing et al., 2016;Guribye et al., 2018), which found that spirituality plays an important part in Polish migrant communities. Against our expectations, Russian respondents preferred spiritual coping, similar to the Polish respondents. This is interesting because it may indicate that spirituality is more important for Russian respondents than earlier reported (Massey and Higgins, 2011). Together, this adds to the literature that emphasized the need for more research on eastern European immigrants in the context of Norway (Kale and Hjelde, 2017).

Our findings indicate that respondents from Pakistan and Somalia have a preference towards combining spiritual coping with engagement and disengagement coping, congruent with earlier research (Pargament, 2011). Earlier research by Wink et al. (2005) has shown that greater involvement in spiritual coping buffered the effects of depression associated with poor physical health, even after controlling for general social support (Wink et al., 2005). This is because spiritual coping not only provides mosque or church-based support, but also a strong and historically based

sense of belonging, values, and identity. This is interesting in connection with the findings in both our study and previous studies (Okello and Ekblad, 2006;Mölsa et al., 2010) that preferences for spiritual coping were positively associated with maintenance acculturation orientation and negatively associated with adoption acculturation orientation. Thus, it seems that spiritual coping strongly reflects a strategy related to in-group connectivity.

5.4 Limitations and future studies

Even though results from the current study provide initial support for the validity and reliability of the CCD-CI, there are several limitations to this study that need to be addressed along with future directions. Importantly, we did not control for the possibility that the respondents themselves had symptoms of depression. The instrument is a self-report measure that relies on the use of a vignette, and it can be questioned whether the response to the question of what a fictive person should do reflects how the respondents themselves would act if they or someone in their family were depressed; even though earlier studies that have addressed this issues have shown that participants respond to hypothetical and real-life scenarios in a similar manner (Peng et al., 1997;Evans et al., 2015). Future research could compare measuring coping by having respondents recall an actual situation where they or someone they know was depressed versus using a standardized vignette.

The representativeness of the samples also needs to be kept in mind. Participants were recruited primarily via Facebook and other social media. Although studies have concluded that samples recruited through Facebook were representative of the general population as samples recruited through traditional methods (Thornton et al., 2016), there is a possibility that the method has resulted in a skewed sample. For example, factors such as low reading literacy and lack of familiarity with answering questionnaires and crossing on a Likert scale could have prevented participation in the study or reduced the validity of the findings. The same sample was used both to develop the instrument and to test its validity. Further, studies are needed to replicate the results in other samples with immigrants from the same cultural backgrounds as in the present study. However, we may also find that these groups have different strategies in different countries of settlement, depending on their specific history and social situation in each country.

This study used a cross-sectional approach that does not allow for causal interferences. The CCD-CI has not been correlated with other coping measures; therefore, its construct validity must be viewed with caution. Frequently used domain-general coping measures such as brief COPE (Carver, 1997) can test the CCD-CI's construct validity in a later study. Finally, the poor reliability of the avoidance subscale should be addressed. Further research may consider a revision by adding new items to capture better the coping strategies represented by the subscale.

5.5 Conclusion and implication

This instrument is an important first step in developing a culturally sensitive, domain-specific coping inventory. Valid and reliable instruments are essential for evidence-based research and practice. The CCD-CI underwent several analyses to explore its reliability and validity, and it was proven to be trustworthy. Our results indicate cultural differences in coping preferences related to all coping strategies, specifically spiritual coping. This has several implications for future research and clinical practice. First, the differences observed in this study support the need to differentiate between immigrant groups in research on coping preferences (Kuo et al., 2006;Kuo, 2014). Second, it supports the view that it may be highly misleading to base therapeutic approaches on aggravated findings from broad categories of immigrants. Rather, our research points to a need to more finely

distinguish between national immigrant groups – and possibly even regional and ethnic groups within a nation, although it may pose a methodological challenge to obtain this kind of diversity in a sample.

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5.7 Author Contribution

VM led the conception and design of the study, analysis, interpretation of the data, drafting, writing, and revising the work. All authors (VM, GM, EG) contributed to the design, analysis and interpretation of the data, and/or writing and revising the work critically for important intellectual content. All authors read and approved the final version of the work to be published (VM, GM, EG).

5.8 Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

5.9 Availability of data

The datasets used for the current study are available from the corresponding author upon request.

5.10 Acknowledgments

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Table 1

Factor loadings for parallel principal component analysis with varimax rotation of coping questionnaire (N = 719)

	Component			
	Engagement	Disengagement	Spiritual	Avoidance
.. spend more time in nature	**.73**	.02	-.03	.00
.. get more physical exercise	**.69**	.04	-.07	-.11
.. start practicing yoga or meditate	**.68**	-.01	.03	.19
.. engage in leisure time activities to keep his mind off the situation	**.58**	.35	.22	-.06
.. get help to reconsider his diet	**.58**	.24	.07	.04
.. get a pet	**.50**	.14	-.04	.36
.. take some time to reflect on his life	**.54**	.02	.21	-.00
.. should express his emotions	**.50**	-.17	-.01	-.10
.. does not need to do anything, it is just something that will go away by itself	.06	**.75**	.09	.16
.. no reason to be sad	.02	**.69**	.19	.20
There is nothing wrong with John	.07	**.66**	-.01	.17
.. keep himself busy with work	.21	**.63**	.25	-.03
.. avoid thinking too much	.18	**.56**	.37	-.05
.. to reconcile himself with God	.09	.16	**.89**	.03
.. pray or get someone to pray for him	.10	.11	**.86**	.04
.. get help to find out if he is a victim of malevolent witchcraft or evil spirits	-.00	.21	**.67**	.32
.. use some alcohol or other drugs (for example khat or marijuana) to become more relaxed	.01	.22	.04	**.68**
.. blame someone else	.05	.17	-.02	**.63**
.. use medication	.05	-.16	.01	**.60**
.. be ashamed	.03	.37	.27	**.48**
.. not tell anyone about his feelings	-.01	.12	.27	**.44**

Table 2

Reliability analysis (Cronbach Alpha Coefficient) for all coping factors for all countries separately and together

	Engagement	Disengagement	Spiritual	Avoidance
Somalia	.82	.62	.68	.68
Pakistan	.79	.60	.70	.59
Poland	.66	.61	.74	.41
Norway	.73	.63	.77	.59
Russia	.68	.74	.71	.45
All	.74	.74	.81	.57

Table 3

Mean, standard deviations, and correlations between coping strategies, acculturation orientation, control and demographic characteristics

	M	*SD*	*1*	*2*	*3*	*4*	*5*	*8*	*9*
Coping									
1. Engagement	4.12	0.82	--						
2. Disengagement	2.68	0.99	**.27****	--					
3. Spiritual	2.23	1.34	**.18****	**.39****	--				
Acculturation[a]									
4. Maintenance	6.56	1.67	**.19****	**.18****	**.29****	--			
5. Adoption	5.62	1.71	**.19****	-.02	**-.16****	**.19****	--		
Demographic									
8. Gender[b]	1.70	0.46	.07	**-.17****	**-.15****	.02	.05	--	
9. Age	30.44	9.10	.00	.02	-.02	-0.03	-.07	.05	--
10. Higher Education	2.73	1.26	**.19***	-.02	**-.18****	-.05	**.22****	.07	**.24****

[a] Only immigrant sample. [b] 1 = male, 2 = female. *$p < .05$. **$p < .01$ (2-tailed).

Table 4

MANOVA − Differences in Coping strategies based on ethnic groups (factor level)

Country of origin	Norway	Russia	Poland	Pakistan	Somalia	*F* (*4,696*)	Partial Eta Square
	M (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)		
Engagement coping	4.13(0.74)$_{a}$	**4.50(0.69)$_{b}$**	4.08(0.79)$_{a}$	**4.25(0.82)$_{a\ b}$**	4.08(1.07)$_{a}$	5.45*	0.00
Disengagement coping	2.38(0.84)$_{a}$	**2.79(1.00)** $_{a\ b}$	2.41(0.88)$_{a}$	**3.02(0.88)** $_{b\ c}$	**3.10(1.20)$_{c}$**	14.60*	0.00
Spiritual coping	1.41(0.78)$_{a}$	**2.04(1.01)**$_{b}$	**1.92(1.007)**$_{b}$	**3.09(1.18)$_{c}$**	**3.91(1.23)$_{d}$**	128.02*	0.00

Note. Means within a row with different subscripts are significantly different at p < .025 *p < .00

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Table 5.

Summary of results from Hierarchical Multiple Regression Analyses

		Maintenance (N = 477)				Adoption (N = 477)			
		b	*SE b*	β	*t*	*b*	*SE b*	β	*t*
Step 1:									
	Gender [a]	.06	.17	.02	.33	-.01	.18	.00	-.07
	Age	-.01	.01	-.04	-.34	-.02	.01	**-.12***	-2.40
	Education[b]	-.07	.06	-.05	-1.11	.32	.06	**.24****	4.95
R^2			0.00				**.06****		
Step 2									
	Gender [a]	.28	.18	.07	1.56	-.12	.18	-.03	-.65
	Age	-.01	.01	-.02	-.33	-.02	.01	**-.12***	-2.44
	Education[b]	.04	.06	.03	.65	.25	.07	**.19****	3.80
	Engagement	.27	.10	**.13***	2.67	.44	.10	**.20****	4.30
	Disengagement	.09	.09	.05	1.01	-.01	.09	-.01	-.11
	Spiritual	.35	.06	**.29****	5.17	-.17	.10	**-.13****	-2.50
R^2 Δ			**0.11****				**.05****		
TotalR^2			**0.11****				**.11****		

Note. [a] 1 = male, 2 = female; [b] 1 = no higher education, 5 = Ph.D. level *p < .05. **p <.01. .***p < .001.

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ORIGINAL ARTICLE

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Immigration, Acculturation, and Preferred Help-seeking Sources for Depression. Comparison of Five Ethnic Groups

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Abstract

Background: Immigrants are more likely than the majority population to have unmet needs for public mental health services. This study aims to understand potential ethnic differences in preferred help-seeking sources for depression in Norway, and how such preferences relate to acculturation orientation. *Methods:* A survey was administered to immigrants from Russia (*n*=164), Poland (*n*=127), Pakistan (*n*=128), and Somalia (*n*=114), and to Norwegian students (*n*=248). The survey consisted of a vignette describing a moderately depressed person. Respondents were asked to provide advice to the person by completing a modified version of the General Help-Seeking Questionnaire. The immigrant sample also responded to questions about acculturation orientation using the Vancouver Acculturation Scale. *Results:* Significant differences were found in endorsement of traditional (e.g., religious leader), informal (e.g., family), and semiformal (e.g., internet forum) help-sources between immigrant groups, and between immigrant groups and the Norwegian respondent group. Immigrants from Pakistan and Somalia endorsed traditional help sources to a greater extent than immigrants from Russia and Poland, and the Norwegian student sample. There were no ethnic differences in endorsement of formal mental help sources (e.g., a medical doctor). Maintenance of the culture of origin as the acculturation orientation was associated with preferences for traditional and informal help sources, while adoption of mainstream culture was associated with semiformal and formal help-seeking sources. ***Conclusion:*** **Ethnic differences in help-seeking sources need to be considered when designing and implementing mental health services.**

Keywords: *Depression, ethnic groups, minority groups, acculturation, help-seeking behavior, immigrant, refugees, mental health services, help-seeking intentions, vignette methodology*

Background

Providing efficient mental health services for a growing immigrant population is a significant challenge for many countries. Acculturative stress, low socio-economic status, social isolation, and feelings of powerlessness in the country of settlement are factors that are recognized to increase the vulnerability of immigrants to mental health problems(1-4). For refugees, trauma experienced before and during their flight may also have severe consequences for their mental health (1, 5, 6). A nationwide cross-sectional study in Norway reported that immigrants had a higher likelihood of being frequent attenders at general practitioners (GP) than the native population. Problems related to mental health were one of the most common factors associated with frequent visits among immigrants from low- and middle-income countries(7). While increased attention to access to mental healthcare has been seen among immigrants in recent years(5, 8, 9), epidemiological research from Norway and other European countries suggests underutilization of specialized mental health services among some immigrant groups compared to the native population(1, 2, 8-11). The rate has been found to vary widely by country of origin(12, 13). This might imply that some immigrant groups have a higher proportion of untreated mental health problems than the rest of the population or that help is sought from sources outside the public health system. Understanding the help-seeking pattern for mental health problems among immigrant populations is important if research, policy, and tailored health program initiatives are to reach vulnerable or isolated groups. Our focus in this paper is on help-seeking for depression because of its high prevalence, and comorbidity with other common diseases(14).

Although there are many definitions of help-seeking(15), it is defined here as a request for assistance from formalized services or for informal support for the purpose of resolving emotional, behavioral, or health problems(16). From a public health perspective, the proposed

Behavioral Model of Health Service Use(17) is useful for understanding ethnic differences in help-seeking preferences(17, 18). According to this model(17, 18), three interrelated groups of factors influence all health behavior, including help-seeking behavior: predisposing factors (e.g., gender, ethnicity, and socio-economic status); need factors (e.g., self-perceived need and professional evaluation), and enabling factors (e.g., ability to pay for healthcare, health literacy, and social support). The model suggests that health behaviors are continuously re-defined by experience and that they influence all health outcomes. Based on a systematic review, Malgaard and colleagues(19) concluded that belonging to certain ethnic minority groups represented a risk of not seeking professional help for depression (based on U.S. and Canadian data sets). For example, African Americans and Mexican Americans had lower rates of seeking help for major depression compared to those with a Caucasian background. Differences were attributed to mental health literacy and attitude-related barriers such as shame(5). With a view to improving ethnic minority patients' access to care, three recent review papers on mental help-seeking behavior(5, 19, 20) highlight that further research should explore beliefs about what constitute appropriate sources of care and help-seeking for mental health concerns in specific ethnic and religious minorities groups.

It is a widely held assumption that the more immigrants integrate into the dominant culture of their country of settlement, the more they will adopt the health patterns of the majority(21). In line with this, we expect acculturation to be an important variable in terms of understanding individual variations in help-seeking within immigrant groups. Acculturation is defined as the changes in values and behaviors individuals make to accommodate to the culture of settlement(22). Berry(22) argued that acculturation addresses two underlying dimensions: the degree to which one's heritage culture is maintained and the degree to which one wishes to participate and have contact with other cultural groups. This two-dimensional perspective

implies that immigrants can maintain or neglect their home culture, while simultaneously adopting or not adopting the culture of settlement(22). Thus, immigrants may retain traditional help-seeking patterns from their home culture despite long residence time and adoption of the majority culture in other domains. In line with previous research(21, 23), there is reason to assume that immigrants who adopt the majority culture are likely to be more positive about seeking help from public health services (formal sources) than immigrants who do not. However, studies on acculturation orientation and help-seeking are few and divergent, and they have mainly concerned Asian-American immigrant groups in the US(23). More research has been called for on specific migrant groups and how they view mental illness (24). Because immigrant groups differ significantly between and within themselves as regards enabling, predisposing, and need factors; differences within immigrant groups are as interesting as differences between immigrant groups and the native Norwegian population. Previous research has shown that several factors can influence acculturation orientation, most importantly gender, and length of time abroad (23).

Against this backdrop, this study aims to examine and compare preferred help-seeking sources for depression among different immigrant groups (Poles, Russians, Somalis, and Pakistanis) in Norway, and how such preferences relate to acculturation orientation. The immigrant groups were chosen because they are among the largest immigrant groups in Norway(8). At the group level, they also differ in terms of years lived in Norway, reason for migration, and religious orientation. In this paper, the term “immigrants” is defined as persons who have either immigrated to Norway themselves or were born of two non-Norwegian-born parents. We focus on lay people instead of a clinical population. Lay people refers to persons who are not mental healthcare professionals. The high prevalence of depression suggests that many people will either experience this disease themselves or their family members will.

Research suggests that, particularly in communal cultures, the views of family members will strongly influence the choice of help-seeking source (25). Thus, the understandings of lay people may be highly informative about how immigrants experience and cope with depression.

Methods

Sample and study participants

A total of 533 respondents from four immigrant groups in Norway took part in the study. In addition, data from Norwegian students (N = 250) were used as a native comparison in parts of the analyses. In total, 81 respondents had more than 30 missing data points (out of 783 responses; 10%) and were excluded from all statistical analyses. Hence, the final sample consisted of 702 participants. The age of the respondents ranged from 19 to 64 years with a mean of 30.8 (SD = 9.3). Table 1 shows the demographic characteristics of the different subsamples.

Table 1. Descriptive statistics for the samples

Country of origin	Norway (n = 225)	Russia (n = 151)	Poland (n = 109)	Pakistan (n = 117)	Somalia (n = 100)
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*
Age	27.3 (7.0)	34,8 (8.5)	34.4 (9.6)	28.5 (10.2)	28.9 (8.3)
Years in Norway	Not relevant	7.9 (5.2)	6.1 (5.8)	16.7 (8.8)	9.3 (7.1)
Born in Norway (N)	Not relevant	11	2	86	0
Higher education*	100%	79%	79%	80%	35%
Females	69%	87%	77%	69%	44%

Note. * Includes those who have started, are undertaking or have completed studies at university level.

Procedure

Immigrant samples: The survey was distributed and collected on paper (n = 33) or online (n = 500). The possibility of answering the survey on paper was only offered to the Somali respondents. Some of the data on Somali immigrants have been presented in a previous paper(26). As for the online survey, the respondents were recruited through social network

sites (e.g., Facebook). Respondents of Somali and Pakistani origin could choose to answer the survey in English or Norwegian, while respondents of Russian and Polish origin could also choose to answer in Russian or Polish, respectively. The instruments were translated using a translation-back-translation procedure, comparing versions to maximize technical, semantic, content, and conceptual equivalence. *The Norwegian sample:* The survey was distributed online. A research assistant invited respondents via a private message on Facebook or by email. The students were mainly recruited from higher education institutions in Bergen, Norway, from different academic disciplines: 30% humanities (e.g., pedagogy), 30% social sciences (e.g., psychology), 11% natural sciences (e.g., chemistry), 16% medicine (e.g., nursing) and 13% from formal science disciplines and professions (e.g., law and real estate management).

Instruments

The first part of the survey consisted of questions about demographics, including age, gender, years of formal education, and length of residence in Norway. Respondents were then asked to read a vignette (Table 2), describing a person with symptoms of depression consistent with the criteria for a depressive episode in the International Classification of Diseases-10(27). The gender of the vignette character was matched to the respondent to facilitate identification.

Table 2. Vignette used in the survey

"*John/Ann is a 27-year-old waiter in a restaurant in Bergen. He/she was born in Oslo to parents who were restaurant owners, but has made Bergen his/her home for 5 years. In the last few weeks, he/she has been experiencing feelings of sadness every day. John/Ann's sadness has been continuous, and he/she cannot attribute it to any specific event or to the season of the year. It is hard for him/her to go to work every day; he/she used to enjoy the company of his/her co-workers and working at the restaurant, but now he/she cannot find any pleasure in this. In fact, John/Ann has little interest in most activities that he/she once enjoyed. He/she is not married and lives alone, near his/her brother/sister. Usually, they enjoy going out together and with friends. But now he/she does not enjoy this anymore. John/Ann feels very guilty about feeling so sad, and feels that he/she has let down his/her brother/sister and friends. He/she has tried to change his/her work habits and start new hobbies to become motivated again, but he/she cannot concentrate on these tasks. Even his/her brother/sister has now commented that John/Ann gets distracted too easily and cannot make decisions. Since these problems began, John/Ann has been sleeping poorly every night; he/she has trouble falling asleep and often wakes up during the night. A few nights ago, as he/she lay awake, trying to fall asleep, John/Ann began to cry because he/she felt so helpless*."

Note. In the Russian version, the male name John was changed to the more typical Russian name Zenia.

After reading the vignette, the respondents answered questionnaires about help-seeking preferences and acculturation orientation.

The General Help-Seeking Questionnaire (26, 28) (GHSQ) consists of 19 items describing different sources from whom help can be sought (e.g., friends, traditional healer, and telephone helpline). Each item was rated on a six-point Likert scale (1 = "very unlikely" to 6 = "very likely"). The standard instruction: "*If you were having [problem-type]*, *how likely is it that you would seek help from the following people?*"(28), was modified to: "*If you were feeling like Ann/John (gender-matched)*, *how likely is it that you would seek help from the*

following sources?". In line with the recommendations of Wilson et al.(28), relevant items were added to fit the target group. Specifically, we included items referring to help-seeking sources in the immigrant community (e.g., traditional healers, elders in my community, leaders in my ethnic community or from the same country as me, other people in my ethnic community or from the same country as me) and alternative medicine (e.g., acupuncture, homeopathy). One source (the Norwegian Labour and Welfare Administration, abbreviated to Social Worker/NAV in the survey) was added to adapt the questionnaire to the Norwegian context.

The Vancouver Index of Acculturation(29) *(*VIA) measures acculturation orientation. It consists of 20 statements assessing interest and participation in one`s heritage culture (10 items) and the mainstream (Norwegian) culture in the country of residence (10 items). Each item was rated on a nine-point Likert scale (1 = "strongly disagree" to 9 = "strongly agree"). The average of the 10 items in each subscale was computed, resulting in a score for each participant on the heritage subscale and on the mainstream subscale. These scales will in the following be referred to as "*Maintenance*" and "*Adoption*".

Data analysis

SPSS 24.0 was used for all statistical analysis. A parallel principal component analysis (with Varimax rotation) of all items in the GHSQ was conducted of help-seeking sources that tend to be used simultaneously. Items with cross-loadings of .40 or higher on two or more factors were removed(30). Based on the results, composite scores for the subscales were computed for each factor. Secondly, differences in means between all immigrant groups were assessed using a multivariate analysis of variance (MANOVA) and Tukey post-hoc tests. Thirdly, a correlation analysis was conducted to explore the relationship between preferred help-seeking sources, acculturation orientation (only immigrants) and background variables. Finally, a

hierarchical multiple regression analysis was conducted to investigate whether the acculturation subscales explained help-seeking preferences when controlling for gender, age, and years of higher education in the immigrant sample. Age was controlled for by a partial correlation analysis and an analysis of covariance (ANCOVA), and no significant differences were observed (results not shown).

Results

Factor structure of the GHSQ

A principal component analysis (Table 3) yielded four factors with eigenvalues exceeding 1, accounting for 57% of the total variance. A scree plot and parallel analysis both supported the 4-factor solution. Two items were deleted due to cross-loadings ("*I would not seek help from anyone"* and "*I would seek help from my manager or human resource staff at my workplace"*), and one item ("*I would seek help from social worker/NAV*") was deleted because the content diverged from the other items with high loading on the factor. Fifteen items were included in further analyses. Bartlett`s test of sphericity was significant, and the Kaiser-Mayer-Olkin measure of sampling was acceptable (≤ .81). The first factor, explaining 26% of the variance, covered help-seeking from religious leaders, healers, elders, and members of the ethnic community. This factor was labelled *traditional*. The second factor, explaining 13% of the variance, included family members, friends, and partners. This factor was labelled *informal*. The third factor, explaining 10% of the variance, concerned phone helplines, internet forums, and a work colleague, and was labelled *semiformal*. The fourth factor, explaining 8% of the variance, comprised general practitioners and psychiatrists/psychologists and was labelled *formal*. The same analysis of only the immigrant sample resulted in a similar factor structure.

Insert Table 3 about here

Differences across ethnic groups in health-seeking sources

The results from the MANOVA with Tukey`s post-hoc tests, with factor scores as dependent variables and ethnic group affiliation as an independent variable, are presented in Table 4. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, and multicollinearity, with no serious violations being noted. Levene`s test showed, however, that the assumption of equality was violated. In line with the recommendations of Tabachnick and Fidell (31), a more conservative alpha (.025) level was therefore used. Three of the help-seeking factors varied significantly between ethnic groups: traditional help-seeking ($F_{4,697}$=65.18, p<0.001), informal help-seeking ($F_{4,697}$=7.66, p<0.001), and formal help-seeking ($F_{4,697}$=3.20, p<0.025). Specifically, the Somali respondents showed a stronger preference for traditional help-seeking than respondents from the other ethnic groups. Post-hoc tests indicated that the mean score for the Traditional factor for respondents of Somali origin was significantly different from the Pakistani immigrant sample, with a moderate effect size (d=0.64), and the Russian immigrant sample (d=0.99), Polish immigrant sample (d=1.24), and Norwegian student sample (d=1.32), with large effect sizes. The mean score of the Pakistani immigrant sample on the Traditional factor was significantly different from the Russian immigrant sample (d=1.22) and Norwegian student sample (d=0.87), with a large effect size, and from the Polish immigrant sample (d=0.69), with a moderate effect size. The Russian immigrant sample was significantly different from the Norwegian student sample, with a moderate effect size (d=0.57). All immigrant samples and the Norwegian students scored highest on the Informal factor relative to the three other factors. Respondents of Somali origin scored higher on the Informal help-seeking factor than the Pakistani (d=0.40), Russian (d=0.43), and Polish immigrant samples (d=0.62) and the Norwegian student sample (d=0.61), with moderate effect sizes. Scores on Formal help-

seeking also varied significantly between ethnic groups, but post-hoc tests show no significant results.

Insert Table 4 about here

Help-seeking factors in relation to acculturation orientation and demographic variables

The correlational analysis (Table 5) showed that endorsement of traditional and informal help-seeking sources was positively associated with a maintenance acculturation orientation, while endorsements of semiformal and formal help-seeking sources were positively associated with an adoption acculturation orientation. This indicates that acculturation orientation may influence help-seeking preferences. Higher education correlated negatively with endorsement of traditional help-seeking sources and positively with an adoption acculturation orientation and age. There were also significant gender differences. Men endorsed traditional help-seeking sources more than women, whereas women endorsed formal help-seeking sources more often than men.

Insert Table 5 about here

Finally, a hierarchical multiple regression analysis was carried out (see Table 6). Demographic variables were entered in the first block, followed by the acculturation orientation factors of maintenance and adoption, which were entered in the second block. Missing data were dealt with by pairwise deletion. The results of the regression analysis showed that the formal help-seeking factor was no longer associated with the adoption acculturation orientation. Gender accounted for significant variance. Female respondents endorsed formal help-seeking sources more than men.

Insert Table 6 about here

Discussion

The overall aim of this study was to examine and compare preferred help-seeking sources for depression among different immigrant groups (Poles, Russians, Somalis, and Pakistanis) in Norway, and to provide more insight into how such preferences relate to individual differences in acculturation orientation. Factor analysis suggested four main categories of help-seeking sources, labelled *traditional, informal, semiformal, and formal.* A similar classification into informal, semiformal and formal help-seeking sources was suggested by Rickwood and Thomas(15) following a systematic review. They noted that classifications are not absolute, since different countries have different health and social care systems. For example, traditional healers could be a critical source of formal health care in a traditional indigenous population group. In the present study, traditional sources emerged as one distinct factor, comprising help-seeking from religious leaders, alternative medicine providers, and ethnic community members.

The results indicate that, independent of ethnicity, respondents preferred to rely on informal sources of help, such as friends and family, before turning to semi-formal (e.g., telephone helplines) or formal (psychologists/psychiatrists and general practitioners) help sources. This is in line with previous research (32, 33) highlighting the importance of social networks in coping with mental health problems. Surprisingly, and contrary to previous studies(11, 34) (35), there were no differences between ethnic groups in preferences for formal help-seeking sources. This is an important finding since earlier research has indicated that some ethnic groups may have a lower preference for formal sources of help due to lower mental health literacy(36). Our findings indicate that all groups recognize formal sources of help as valuable. One possible explanation for these different findings is that all legal residents in Norway have access to public health care, and that costs are low. All citizens are entitled to a

general practitioner. Once a person reaches an annual limit (currently about NOK 2000), services are free. However, when interpreting the findings, it should be kept in mind that some immigrants, in particular from countries where mental health services are sparse or non-existent, may not have a clear understanding of what a psychologist is or the nature of psychological treatment. Moreover, one should be mindful that the formal help factor only consisted of two items, which may explain why the internal consistency was rather low.

Immigrants and refugees from Somalia and Pakistan endorsed more traditional and informal sources of help than immigrants from countries culturally closer to Norway (Russia and Poland) and the Norwegian sample. Thus, as cultural distance grows, the conceptualization of what constitute effective help-seeking sources seems to diverge. If informal and traditional sources are influential in determining treatment choices in depressed friends and family, this may highlight their potential role as gatekeepers or gate-openers for public mental health services(32). The Norwegian student sample scored significantly lower than most ethnic groups on preference for traditional sources of help. This is consistent with previous research(37). However, the lower endorsement of help-seeking from traditional sources may be due to the possible perceived irrelevance to the Norwegian respondents of some of the questions loading on the traditional factor (e.g., "*seeking help from a leader in my ethnic community or from the same country as me*").

The results of the hierarchical regression analysis showed that acculturation orientation explained only a modest portion of the variance in preferred help-seeking sources. However, the pattern of correlations was in accordance with previous findings (34, 38). Orientation towards heritage culture was associated with a preference for traditional and informal sources of help, while orientation towards mainstream (Norwegian) culture was associated with endorsement of semiformal and formal sources of help.

The current findings suggest that demographic variables should also be taken into consideration when designing interventions for immigrants. Women took a more positive view of formal help-seeking sources, while males took a more positive view of traditional help-seeking sources(19). There may be several explanations for these findings, for example the stigma attached to mental health among male respondents that has been reported in previous findings (20, 39). Years of higher education was positively associated with endorsement of formal sources and negatively associated with endorsement of traditional help-seeking sources. These findings suggest that immigrants with lower education are more likely to seek help from sources outside the existing health services. This may give cause for concern because lower education, often associated with lower socio-economic status, is a risk factor for poorer mental health.

Methodological considerations

Our results should be interpreted in light of certain limitations. The representativeness of the samples needs to be kept in mind. Participants in this study were recruited through convenience sampling, primarily via social media. This sampling method is recommended when working with hard-to-reach population groups, such as ethnic minorities (40, 41). While studies have concluded that samples recruited through social media were as representative of the general population as samples recruited via traditional methods(42), we cannot exclude the possibility that the method has resulted in a skewed sample. Caution is warranted when generalizing the results to more heterogeneous populations. Several factors could have precluded participation in the study, such as low reading literacy, lack of familiarity with answering questionnaires, and lack of internet access. The majority of respondents were relatively young. Possible biases related to ethnic differences in response styles (43) should be

kept in mind when interpreting the results from the group comparisons. The use of a vignette may have reduced the impact of social desirability, since the respondents were not asked to report their own mental health behavior. Such measures are useful in studies of nonclinical populations to attempt to determine what people who are not experiencing symptoms would do if they were to experience symptom(15). It can still be questioned whether the response to the question of what a hypothetical person should do actually reflects how the respondents themselves would act if they or someone in their family were depressed. The limitations of using students as a Norwegian reference group for the four immigrant samples also needs to be recognized. Research has shown that it may be problematic to generalize from students to the general public(44). The Norwegian students were on average younger and had higher education than the other groups, factors with potential implications for help-seeking preferences. However, controlling for age in the statistical analysis did not change the significant group differences observed.

Conclusion

Future studies are needed to understand the mechanisms underlying ethnic differences in help source preferences, as well as to enable generalization of the results from this study to more heterogeneous populations. Nonetheless, the results from this study suggest that immigrants' preferred help-seeking sources differ by ethnic group, gender, level of education, and acculturation orientation. The differences were particularly evident as regards choosing traditional help-seeking sources. One implication of the findings is that public health services for ethnic minority patients, in particular for men and those with lower education, should consider integrating formal, informal, and traditional help sources, such as ethnic community members, religious leaders, and family networks when designing and implementing mental health services.

Abbreviations

VIA - The Vancouver Index of Acculturation

GHSQ - The General Help-Seeking Questionnaire

Declarations

Ethics approval and consent to participate

The study was approved by the Regional Committee for Medical and Health Research Ethics (2013/2181) and the Norwegian Social Science Data Services. The anonymity of the respondents was ensured as they were not asked to provide any personal information that could identify them. Prior to answering the questionnaires, respondents were informed about the purpose of the study and how the confidentiality of individual data would be handled in all phases of data collection and publication. Respondents provided their consent by pressing the "next" button in the online version, or signed a declaration of consent (for those who completed the survey on paper).

Consent to participate

Not applicable

Conflict of interest

The authors declare that they have no conflicts of interest.

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Availability of data

The datasets used for the current study are available from the corresponding author upon request.

Authors' contributions

VM led the conception and design of the study, analysis, interpretation of the data, drafting, writing, and revising the work. All authors (VM, GM, SP) contributed to the design, analysis and interpretation of the data, and/or writing and revising the work critically for important intellectual content. All authors read and approved the final version of the work to be published (VM, GM, SP).

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Table 3. Factor loadings for parallel principal component analysis with varimax rotation of help-seeking questionnaire

	Traditional	Informal	Semiformal	Formal
Leader in my ethnic community or from the same country as me	**.84**	.09	.20	-.04
Elders in my community	**.80**	.15	.12	-.01
Traditional healer	**.76**	-.00	.14	.08
Other people in my ethnic community or from the same country as me	**.75**	.13	.18	-.08
Religious leader (e.g., priest, rabbi, chaplain, mullah)	**.72**	.15	.04	-.02
Alternative medicine (e.g., acupuncturist, homeopath)	**.60**	-.04	.08	.26
Parents	.18	**.75**	-.04	.01
Friends	.04	**.74**	.14	.05
Intimate Partner (e.g., girlfriend, boyfriend, husband, wife)	-.13	**.72**	-.01	.15
Other relative/Family member	32	**.61**	.09	.05
Telephone helplines	.24	-.03	**.75**	.20
Internet forums	.03	-.03	**.79**	.09
Work colleague	.28	.36	**.56**	-.02
Psychiatrist/psychologist	-.01	.04	.10	**.85**
Medical doctor/GP	.11	.19	.13	**.78**

Note. Items loaded under the same factor in boldface.

Table 4. MANOVA− Differences in help-seeking strategies based on ethnic groups (factor level)

Country of origin	Norway	Russia	Poland	Pakistan	Somalia	*F* (*4,729*)	*p*	Partial Eta Square
	M (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)			
Traditional	1.39 (0.64)[a]	**1.78(0.73) [b c]**	**1.51 (0.73) [ab]**	**2.09(0.94) c**	**2.57(1.26) [d]**	**65.17**	**0.00**	**0.24**
Informal	3.80 (1.12)[a]	4.03 (0.97)[a]	3.78(1.14)[a]	4.04(1.17)[a]	**4.50(1.13) [b]**	**7.65**	**0.00**	**0.04**
Semiformal	2.24 (0.87)[a b]	2.31(0.95)[a b]	2.15(1.07)[a]	2.17 (0.98)[a b]	2.34(1.14) [b]	2.55	0.04	0.01
Formal	3.62 (1.33)[a]	3.31(1.36)[a]	3.37(1.51)[a]	3.22(1.30)[a]	3.35 (1.44) [a]	3.02	0.01	0.02

Note. Means within a row with different subscripts are significantly different at p ≤.025

Table 5. Mean, standard deviations, and correlations between help-seeking strategies, acculturation orientation and demographic characteristics

	M	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
Help-seeking										
1.Traditional	1.80	0.96	**.84**							
2. Informal	4.00	1.10	.26**	**.71**						
3.Semiformal	2.30	1.01	.31**	.20**	**.60**					
4. Formal	3.46	1.40	.08*	.14**	.22**	**.61**				
Acculturation[a]										
5. Maintenance	6.57	1.70	.27**	.31**	.06	.05	**.90**			
6. Adoption	5.60	1.70	-.06	.05	.16**	.14**	.19**	**.90**		
Demographic										
7. Gender[b]	30.80	9.30	-.09*	.03	-.01	.14**	.02	.05		
8. Age	2.77	1.30	.06	-.10**	-.00	.02	-.03	-.07	.05	
9. Higher education	1.70	0.46	-.18**	-.00	.01	-.04	-.05	.22**	.07	.24**

Note. The coefficients on the diagonal in bold are the Cronbach's alpha of each scale.

[a] Only immigrant sample (n = 452). [b] 1 = male, 2 = female

* ≤ 0.05 level, ** ≤ 0.01 level (2-tailed).

Table 6. Summary of results from hierarchical multiple regression analyses (*N*=452)

		Traditional				Informal			
		b	*SE b*	β	*t*	*b*	*SE b*	β	*t*
Step 1:									
	Gender[a]	-.28	.11	-.13**	-2.70	.10	.12	.04	.80
	Age	.01	.01	.05	.97	-.01	.01	-.08	-1.63
	Education[b]	-.23	.04	-.31***	-6.47	.06	.04	-.07	-1.47
R^2			.12***				.02		
Step 2									
	Gender	-.28	.10	-.13**	-2.86	.09	.12	.03	.72
	Age	.01	.01	.05	1.01	-.01	.01	-.08	-1.68
	Education	-.22	.04	-.29***	-6.02	-.05	.04	-.06	-1.11
	Maintenance	.16	.03	.25***	5.80	.21	.03	.31***	6.53
	Adoption	-.02	.03	-.03	-.71	-.00	.03	-.01	-.01
ΔR^2			.06***				.09***		
Total R^2			.18***				.11***		
		Semiformal				Formal			
		b	*SE b*	β	*t*	*b*	*SE b*	β	*t*
Step 1									
	Gender[a]	.04	.12	.02	.31	.55	.15	.18**	3.78
	Age	-.00	.01	-.03	-.06	.01	.01	.07	1.47
	Education[b]	-.01	.04	-.01	-.29	-.04	.05	-.04	-.84
R^2			.00				.04**		
Step 2									
	Gender	.01	.12	.02	.02	.55	.14	.18***	3.84
	Age	-.00	.01	-.01	-.18	.01	.01	.09	1.88
	Education	-.05	.04	-.06	-1.01	-.09	.05	-.08	-1.62
	Maintenance	.02	.03	.03	.58	.02	.04	.02	.39
	Adoption	.11	.03	.17**	3.48	.14	.04	.17**	3.47
ΔR^2			.03**				.03**		
Total R^2			.03**				.07		

Note. [a] 1 = male, 2 = female; [b] 1 = no higher education, 5 = Ph.D. level

* ≤ 0.05, ** ≤ 0.01, *** ≤ 0.001

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III

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ORIGINAL RESEARCH
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Lay Explanatory Models of Depression and Preferred Coping Strategies among Somali Refugees in Norway. A Mixed-Method Study

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Objective: Refugees are at high risk of experiencing mental health problems due to trauma in their pasts and to acculturation stress as they settle in a new country. To develop efficient health services that meet the needs of refugees from different regions, an understanding is required of how they make sense of and prefer to cope with mental health problems. This study aims to investigate lay explanatory models of depression and preferred coping strategies among Somali refugees in Norway.

Methods: The study used a mixed-method design with a vignette describing a moderately depressed person based on ICD-10 criteria. Firstly, a survey study was performed among Somali refugees ($n = 101$). Respondents were asked to give advice to the vignette character and complete the Cross-Cultural Depression Coping Inventory and the General Help-Seeking Questionnaire. Secondly, focus group interviews ($n = 10$) were conducted separately with males and females to examine the relationship between the explanatory models of depression and the preferred coping strategies.

Results: The participants showed a strong preference for coping with depression by religious practices and reliance on family, friends, and their ethnic/religious community, rather than by seeking professional treatment from public health services (e.g., medical doctors, psychologists). Depressive symptoms were conceptualized as a problem related to cognition (thinking too much) and emotion (sadness), but not to biological mechanisms, and they were thought to result from spiritual possession, stress as a result of social isolation, and/or past trauma. Independently of time in exile, the participants showed a strong identification with their ethnic origin and associated values. Because participants emphasized the need to obey and follow the views of elders, fathers, and spiritual leaders, these authorities seemed to be "gatekeepers" for access to mental health services.

Conclusion: The results highlight that mental health programs for Somali refugees should actively involve the ethnic community, including spiritual leaders, in order to reach patients in need and to foster treatment compliance.

Keywords: depression, help-seeking, coping strategies, refugees, Somalia, mixed method, focus group

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INTRODUCTION

One of the largest refugee populations worldwide comes from Somalia. Because of the ongoing civil war, which has lasted since 1991, more than one million Somalis have fled to other countries in Africa, Europe, and North America (United Nations High Commissioner for Refugees, 2015). Immigrants and refugees, and particularly those coming from war zones, are at high risk of mental health problems due to factors such as trauma before and during their flight, acculturative stress, low socioeconomic status, social isolation, and feelings of powerlessness in the country of settlement (Dalgard et al., 2006; Lindert et al., 2009; Abebe et al., 2014). Research has documented that mental health problems are more prevalent among refugees than in the native population and other migrant populations (e.g., Bhurga, 2004; Lindert et al., 2009; Missinne and Bracke, 2012). Epidemiological evidence among Somali refugees is sparse and divergent, however (Bhui et al., 2006; Feyera et al., 2015) a survey study of Somali refugees in Norway reported a prevalence rate of 16% for anxiety and depression, compared to 9% for the general population (Blom, 2008). In Finland, the rate of moderate or severe depression was 21.1% among Somalis and 14.1% among native Finns (Mölsa et al., 2014). Bhui et al. (2006) found depression and anxiety to be present in 33.8% of Somali refugees residing in the United Kingdom.

The task of preventing, recognizing, and appropriately treating common mental health problems among refugees might be complicated because of differences in language, culture, patterns of seeking help, and ways of coping. Scholars have noted that it may be essential to present mental health care services in culturally sensitive ways in order to increase access to, use, and benefits of mental health care services (Ell et al., 2007; Wu et al., 2014), because beliefs about mental health among refugees often differ from the Western biomedical perspective on mental illness. Mental illness is hugely stigmatized in the Somali community, and access to psychiatric and psychological treatment is absent for the majority of the population. Until now, however, few studies have examined the understanding of mental health problems and preferred treatment and coping patterns among Somali refugees settled in Europe (Gladden, 2012). The aim of this study is to fill this gap in the literature. We focus on depression because of its high prevalence among refugees, and comorbidity with other common diseases in this population, such as anxiety and post-traumatic stress disorder (PTSD).

According to the World Health Organization, depression is a leading cause of disease burden worldwide (World Health Organization, 2013). Nevertheless, extensive research literature shows that there is wide variation across nations and ethnic groups in the way in which *depression* is explained and expressed (Hagmayer and Engelmann, 2014; Napier et al., 2014). How people understand the cause, manifestations, and treatment of illness has been referred to as *lay theories,* as opposed to the scientific models more frequently endorsed by professional caregivers in Western societies (see Furnham and Kirkcaldy, 2015). Linked to these theories are *explanatory models* defined as sets of ideas about episodes of disease that are held by patients and the practitioners involved in their treatment (Kleinman, 1980). Ideas about health and diseases are belief systems organized around concepts of causes (Knettel, 2016). The significance of health professionals paying attention to patients' explanatory models is highlighted by research showing that these belief systems are linked to a variety of responses, including attitudes (e.g., stigma) to compliance with treatment, to patient satisfaction, and to lifestyle changes aimed at managing diseases (Petrie and Weinman, 2006; Hagmayer and Engelmann, 2014).

The association between explanatory models and the use of health services is an area where further research is needed. Studies in several countries suggest that immigrants and refugees are less likely than their native-born counterparts to seek out or be referred to mental health services, even when they experience comparable or higher levels of distress (DeShaw, 2006; Dyhr et al., 2007; Sandvik et al., 2012; Norwegian Institute of Public Health, 2014). In Norway, where this study was carried out, Somali refugees are found to use acute psychiatric help or mental health specialists less frequently than the majority population, while they are more likely to seek help from emergency primary health care (Sandvik et al., 2012; Norwegian Institute of Public Health, 2014). Half of their contact with emergency primary health care was for non-specific pain (Sandvik et al., 2012). Research has documented differences in how patients from different cultures present symptoms of depression (Kuittinen et al., 2014). For example, a study conducted in Finland showed that older Somali refugees manifested more somatic-affective symptoms of depression than native Finns, whereas native Finns manifested more cognitive symptoms than the Somalis (Kuittinen et al., 2014). Such findings may provide insight into why immigrants from poorer countries tend to be given ill-defined diagnoses more often than native-born citizens. The diagnoses given are often related to musculoskeletal conditions, whereas diagnoses of mental disorders tend to be more infrequent (Grünfeld and Noreik, 1991; Sandvik et al., 2012). American research has shown that clinicians diagnose ethnic majority individuals with psychiatric illness more often than they do ethnic minority individuals exhibiting the same symptoms (Skaer et al., 2000), ostensibly believing the symptoms to be normative for the minority group (Pottick et al., 2007). Along the same lines, a study conducted in Great Britain found that Somali refugees suffering from anxiety and depression or psychosis were more likely to be on physical care medication than undergoing psychological treatment (Bhui et al., 2003a).

Disparities in help-seeking behavior and treatment between refugees and the native-born population have been attributed to language barriers (Wiking et al., 2004), healthcare providers' lack of cultural competence (Sandhu et al., 2013), and lack of knowledge about what services are available (Open Society Foundations, 2015). Somali refugees' mistrust of the biomedical health sector, which is sometimes the result of unfulfilled expectations of medical encounters, have been reported in studies conducted in several countries, including Sweden (Svenberg et al., 2011), the USA (Scuglic et al., 2007), and the Netherlands (Feldman et al., 2006). While the possible impact of all these factors is recognized, we argue that explanatory models about mental health problems play a vital role in the coping pattern observed among Somali refugees. Napier et al. (2014)

explicates the association between culture and health, arguing that culture can be understood as not only habits and beliefs about perceived wellbeing, but also political, economic, legal, ethical, and moral practices and values. An understanding of the explanatory models of Somali refugees needs to consider characteristics of their culture of heritage. We focus here on culture at the level of nationality, which is common in the cross-cultural literature, while recognizing that nations are rarely homogeneous. According to Schwartz (2006), sub-Saharan cultures are characterized by an emphasis on embeddedness and hierarchy that implies expectancies of obedience, conformity, and group identification. Against this backdrop, we assume that Somali refugees adhere strongly to culturally shaped beliefs and practices as regards how they understand and cope with depression.

Coping strategies in this paper refers to the way in which people prefer to react to or deal with depression, including help-seeking behavior and preferred treatment. In general, *coping* refers to the thoughts and behaviors people use to manage the external and internal demands of stressful events (Lazarus and Folkman, 1984). Depression has been regarded as a reflection of hopelessness or helplessness due to unsuccessful coping (Levine and Ursin, 1991). However, depression itself is an adverse condition that individuals may deal with in different ways. Contemporary stress models emphasize that the initial appraisal of the situation normally directs the choice of coping strategies. Thus, the choice of strategies for dealing with mental health problems depends on the explanatory model (Karasz, 2005). Consistent with this theoretical prediction, an extensive literature review of studies of causal beliefs about depression in different cultural groups by Hagmayer and Engelmann (2014) showed that causal beliefs were closely linked to coping preferences. They categorized assumed causes into five categories: stress (externally caused), personality and psychological causes (e.g., thinking too much), biological causes (e.g., chemical imbalance), supernatural causes (e.g., witchcraft, god's will), and traditional causes (causes based on non-western medical theories, e.g., traditional Chinese medicine). In addition, coping strategies were classified into five categories: psychological treatment (e.g., psychotherapy), social support (i.e., non-professional support from family and friends), bio-medical treatment (e.g., antidepressant medication), religious (e.g., praying) or supernatural practices, and non-Western medicine or alternative treatment (e.g., yoga, herbs, healers). We adopt the same classifications in the present study.

Hagmayer and Engelmann (2014) noted that, for Western groups in particular, causal beliefs were clearly related to treatment preferences. These groups were most in favor of bio-medical treatment, followed by social support. Religious and supernatural practices came third, ahead of traditional treatment and psychotherapy. Those who believed more strongly in supernatural causes endorsed religion as a treatment more than others. However, people within the same cultural group may endorse more than one causal factor and have different views about efficient coping strategies, depending on the assumed causes. For instance, Okello and Ekblad (2006) investigated causal beliefs about depression among the Ganda people in Uganda. When witchcraft was suspected to be the cause, the help of traditional healers was sought, while Western medicine was preferred to address assumed somatic causes. Similarly, in the Somali context, people tend to endorse religious and supernatural treatment for mental disorders. According to a report from the World Health Organization (2010), the mainstay of mental health care in Somaliland is social support, followed by traditional and religious healers (mostly herbalists and faith healers). Mölsa et al. (2010) noted that, for Somalis in exile, traditional understandings, and practices relating to mental distress may change as a result of immigration and acculturation processes. However, many Somali refugees have limited prior experience of bio-medical treatment methods, because mental healthcare infrastructure is nonexistent in Somalia following the civil war (Leather et al., 2006; Syed Sheriff et al., 2011). Research suggests that many Somali refugees maintain traditional Somalian beliefs and practices about mental health problems even after they settle in a new country. For example, a study of Somali refugees living in Finland suggested that mental disorders tended to be seen as reflecting spiritual and/or social problems (Mölsa et al., 2010). Similarly, Carrol (2004) concluded that religion, supernatural practices, and alternative treatments seemed to carry more weight than bio-medical and psychological treatment among Somali refugees in the USA. A qualitative study showed that Somali participants drew strength from interdependence and the connection they felt to their social network or religious faith when experiencing mental distress (Jorden et al., 2009). Sources of social support for refugees may still differ from the support refugees could access in Somalia, since families may be separated during the immigration process and loved ones may have been lost through war (Smith, 2013).

To date, the literature on how Somali refugees tend to perceive and cope with mental health problems is limited. As noted by Gladden (2012), existing studies have been based on an explorative and qualitative approach, and they usually rely upon small samples comprising mostly male migrants. The present study tries to overcome these limitations by using a mixed-method design, in line with recommendations by other researchers (Bhui and Bhugra, 2002; Hagmayer and Engelmann, 2014). Firstly, we conducted a survey among Somali refugees to assess how they view the likelihood of seeking help from different sources when experiencing symptoms of depression, and their coping patterns in dealing with this condition. This is followed by focus-group interviews to elaborate on the results from the quantitative study and to gain a deeper understanding of how help-seeking and coping patterns are linked to etiological beliefs about depression. The term *refugee* in this paper refers to persons with legal residence who have come to Norway for protection, including those who have come through family reunification. Our study includes lay people of Somali origin rather than a clinical population. In this paper, lay people refer to persons who do not have specialized or professional knowledge of mental health disorders. The high prevalence of depression among Somali refugees suggests that a large proportion will either experience this disorder themselves or have to cope with family members who experience it. Research suggests that, particularly in communal cultures, family members will have a strong influence on mental health service utilization and choice

of coping strategy (see references in Erdal et al., 2011). Thus, the views of lay people may be highly informative about how refugees experience and deal with mental health problems.

SUB-STUDY 1

Methods

Participants

The sample consisted of Somali refugees above the age of 18 years living in Norway. A total of 101 respondents (response rate 33%) participated in the study. Six respondents were excluded from the data analysis because more than 80% of their data were missing. The final sample consisted of 95 respondents (44% women), 75 of whom completed the full questionnaire. Of the respondents, 34% were taking or had a university or college degree. More demographic information about the sample is provided in **Table 1**.

Materials

The first part of the survey asked about demographic information, including age, sex, reason for migration, years of formal education, cause of immigration, and current employment situation. The second part of the survey consisted of a vignette, describing a person with symptoms of depression consistent with the criteria for a depressive episode in the International Classification of Diseases-10 (World Health Organization, 2011). The gender of the vignette character was matched to the respondent to facilitate identification. We used the same vignette that was used in a previous study on mental health conceptions among immigrants to Norway (Erdal et al., 2011). The vignette read as follows:

> "*John/Ann is a 27-year-old waiter in a restaurant in Bergen. He/she was born in Oslo to parents who were restaurant owners, but has made Bergen his/her home for 5 years. In the last few weeks, he/she has been experiencing feelings of sadness every day. John/Ann's sadness has been continuous, and he/she cannot attribute it to any specific event or to the season. It is hard for him/her to go to work every day; he/she used to enjoy the company of his/her co-workers and working at the restaurant, but now he/she cannot find any pleasure in this. In fact, John/Ann has little interest in most activities that he/she once enjoyed. He/she is not married and lives alone, near his/her brother/sister. Usually, they enjoy going out together and with friends. But now he/she does not enjoy this anymore. John/Ann feels very guilty about feeling so sad, and feels that he/she has let down his/her brother/sister and friends. He/she has tried to change his/her work habits and start new hobbies to become motivated again, but he/she cannot concentrate on these tasks. Even his/her brother/sister has now commented that John/Ann gets distracted too easily and cannot make decisions. Since these problems began, John/Ann has been sleeping poorly every night; he/she has trouble falling asleep and often wakes up during the night. A few nights ago, as he/she lay awake, trying to fall asleep, John/Ann began to cry because he/she felt so helpless.*"

After reading the vignette, the respondents answered questions on two scales. The first measured help-seeking behavior and the second measured coping strategies.

The General Help-Seeking Questionnaire (GHSQ; Wilson et al., 2007) consists of 19 items describing different sources from whom to seek help. Each item was rated on a 6-point Likert scale

TABLE 1 | Demographic statistics for men and women—Sub-Study 1.

	Males $n = 53$	Females $n = 42$	Total $n = 95$
Age	$M = 28$ ($SD = 9.28$)	$M = 28$ ($SD = 7.35$)	$M = 28$ ($SD = 8.43$)
Duration of stay (Years)	$M = 9$ ($SD = 9.62$)	$M = 10$ ($SD = 8.24$)	$M = 10$ ($SD = 9.27$)
REASON FOR MIGRATION			
Work/Studies	7%	0%	4%
Asylum seeker	57%	43%	51%
Family reunion	30%	55%	41%
I came with my parents	6%	2%	4%
CURRENT SITUATION			
Employed	25%	29%	27%
Student (including those attending a Norwegian language course)	60%	43%	53%
Unemployed	9%	10%	10%
Work at home	0%	7%	3%
Leave of absence	0%	5%	2%
Early retirement/disability benefit	0%	0%	0%
Other	4%	5%	4%
Missing	2%	1%	1%
In a relationship (married, living with a partner, long-term boyfriend or girlfriend	38%	50%	43%
Not in a relationship	62%	45%	55%
Missing	0%	5%	2%

(1 "very unlikely" to 6 "very likely"). The standard instruction "*If you were having [problem-type], how likely is it that you would seek help from the following people?*" (Wilson et al., 2007) was modified to: "*If you were feeling like Ann/John (gender matched), how likely is it that you would seek help from the following sources?*" In line with the recommendations of Wilson et al. (2007), we added items to fit the target group. Specifically, based on past research on how refugees cope with health-related problems (Carrol, 2004; Hagmayer and Engelmann, 2014), we included items referring to sources of help in the refugees' ethnic community (e.g., traditional healers, elders in the community, leaders in the ethnic community or from the same country) and alternative medicine (e.g., acupuncture, homeopathy). One source (the Norwegian Labor and Welfare Administration (NAV)) was added to adapt to the Norwegian context. In addition, an open space (with the heading "other") was provided for participants to indicate other help-seeking sources that they would use and that were not listed.

The Cross-Cultural Depression Coping Inventory (CCD-CI) assesses how immigrants prefer to deal with depressive symptoms. An instrument used in a previous study (Erdal et al., 2011) was revised and extended to cover a broad range of coping strategies of relevance to refugees from different cultures. To avoid an ethnocentric bias in the coping behaviors listed, researchers from several disciplines (anthropology, social work, psychology) and people from many countries (e.g., Ghana, USA, Korea, China, Norway) were involved in generating relevant items. The survey was pilot tested on the target population and other immigrant groups to check whether the items were meaningful and unambiguous. Finally, the pool of items was reviewed by a panel of researchers to reduce overlapping items. The final version of the CCD-CI consists of 28 statements describing different ways in which the vignette character could deal with his/her depression (see **Table 3**). The respondents were asked to indicate their agreement with each statement on 6-point Likert scales (1, "strongly disagree"; 6, "strongly agree").

Procedure

The study was approved by the Local Regional Committee for Medical Research Ethics and Norwegian Social Science Data Services (NSD). In line with the Helsinki declaration, participants signed a declaration of consent and received written information about the study. They were informed that individual information would be kept confidential and told how data would be stored and reported. The survey was administered in English and Norwegian. Translations of the instruments were completed using a traditional forward and back translation, comparing versions to maximize technical, semantic, content, and conceptual equivalence (Flaherty et al., 1988). The survey was distributed and collected on paper ($n = 33$) or online ($n = 68$). No monetary rewards were offered. The paper version was administered to two samples of Somali refugees in Bergen, the second largest city in Norway. One sample consisted of participants in Norwegian language courses (each with ∼20 students) at the largest school for adult immigrants, while the second consisted of visitors at the only Somali café in Bergen. A native Somali explained the project in Somali, and the participants had an opportunity to ask questions in Somali about the project or to clarify the content and meaning of the items. As for the online survey, nine Somali immigrant organizations were contacted by email. Two of them agreed to give the researchers access to their Facebook group (about 1000 members in total) and sent individual invitations to group members on behalf of the researchers, asking them to participate in the study on Facebook. Only members above the age of 18 years were contacted. Participants received only one invitation. Participants gave their consent to participate in the online survey by pressing the "Next" button after reading information about the project.

Results

Preferred Coping Strategies

In terms of sources of help (GHSQ) as shown in **Table 2**, the most notable findings (all over the mean of 4.0) are the emphasis on social support (e.g., parents, intimate partner, friends, and other relatives/family members) and the religious community. Eleven respondents made use of the response alternative, "other." These included faith ($N = 5$; for example: *Allah (God)*; *read Quran and pray to Allah for help, because I think that it is only God who can help me with everything*) and friends and family ($N = 3$). The following comments were added by the remaining three respondents: *"Someone that I trust can help me or he has gone through what I go through at the moment*," "*My only friend (ME)*," and "*One that knows Somali and who is a psychologist*."

The most preferred coping strategies (mean score above 5.0), assessed using CCD-CI, as shown in **Table 3**, were religious practice (e.g., reconciliation with God, personal prayer, or getting someone to pray for him/her), social support (e.g., find a partner), and alternative treatment (e.g., get more rest, reflect on his/her life, express emotions, spend more time in nature, engage in leisure activities, physical exercise, avoid thinking too much). The least preferred coping strategies (mean score below 3.0) were the use of medication, use of alcohol or other drugs, and passive coping strategies, including "there is nothing wrong with John/Ann," "not tell anyone about his/her feelings," "blame someone else and be ashamed."

Overall, the confidence intervals are less than 1 unit on the raw response scale, which means that the intervals are rather precisely located and that the population means are unlikely to differ by more than 1 unit from their sample values. Moreover, relatively few intervals include the extreme scale points (1 and 6). Only the first item goes beyond 6, while no items are below 1, which makes the occurrence of floor effects very unlikely and ceiling effects also rather unlikely.

SUB-STUDY 2

Methods

Participants and Procedure

Two focus group interviews were conducted. The groups were divided by gender and consisted of four men and six women. **Table 4** shows the demographic characteristics of the participants. The interviewees were recruited from the Introductory Program for Refugees, which is a public

TABLE 2 | Descriptive statistics of items in the GHSQ.

Item	Men	Women	Total	95% C.I.
	M (*SD*)	*M* (*SD*)	*M* (*SD*)	
(1) Parent	4.9 (1.8)	5.0 (1.5)	4.9 (1.6)	4.58–5.22
(2) Intimate Partner (e.g., girlfriend, boyfriend, husband, wife)	4.2 (1.9)	4.9 (1.4)	4.5 (1.7)	4.16–4.84
(3) Friends	4.2 (1.6)	4.7 (1.6)	4.5 (1.6)	4.18–4.82
(4) Religious leader (e.g., priest, rabbi, chaplain, mullah)	4.4 (1.9)	4.4 (1.7)	4.4 (1.8)	4.04–4.76
(5) Other relative/Family member	4.4 (1.7)	3.7 (1.9)	4.1 (1.8)	3.74–4.46
(6) Medical doctor/General Practitioner (GP)	3.4 (1.9)	4.5 (1.5)	3.9 (1.7)	3.56–4.24
(7) Elders in my community	3.4 (1.8)	2.5 (1.8)	3.0 (1.8)	2.64–3.36
(8) Other people in my ethnic community or from the same country as me	3.3 (1.7)	2.5 (1.7)	2.9 (1.7)	2.56–3.24
(9) Psychiatrist/psychologist	3.2 (1.9)	2.6 (1.7)	2.9 (1.8)	2.54–3.26
(10) Internet forums	2.8 (1.9)	2.5 (1.7)	2.6 (1.8)	2.24–2.96
(11) A work colleague	2.7 (1.8)	2.4 (1.5)	2.6 (1.6)	2.28–2.92
(12) Leaders in my ethnic community or from the same country as me	2.7 (1.7)	2.3 (1.5)	2.5 (1.6)	2.18–2.82
(13) Alternative medicine (e.g., acupuncturist, homeopath)	2.5 (1.8)	2.4 (1.6)	2.4 (1.7)	2.06–2.74
(14) My manager or human resource staff at my workplace	2.7 (1.6)	2.0 (1.6)	2.3 (1.6)	1.98–2.62
(15) Social worker/NAV	2.5 (1.8)	1.8 (1.2)	2.2 (1.6)	1.88–2.52
(16) Traditional healer	2.3 (1.6)	1.8 (1.4)	2.2 (1.5)	1.9–2.5
(17) I would not seek help from anyone	2.2 (1.6)	1.9 (1.4)	2.1 (1.5)	1.8–2.4
(18) I would seek help from someone not listed above	2.2 (1.8)	1.8 (1.4)	2.0 (1.6)	1.68–2.32
(19) Phone helpline	2.3 (1.8)	1.8 (1.3)	2.0 (1.6)	1.68–2.32

Value varied from 1, very unlikely to 6, very likely.

program that is compulsory for recent refugees above the age of 18 who are granted a residence permit in Norway. The participants were chosen to produce maximum variation with respect to age, education level, work experience, and marital status. Most of the participants received an invitation to participate in and information about the project 1 week prior to the event.

Focus Group Interviews

Two interviewers (the authors) conducted the interviews. Because the participants had limited Norwegian language skills, licensed translators of Somali origin were used. Group discussions lasted for ∼2 h. The same vignette was used as in the survey. The gender of the vignette character was matched to the respondents' genders, and Somali names were used (Ali and Nora) to facilitate identification. Prior to the interviews, participants consented to being filmed, and they were informed about their rights as research subjects, including that they could withdraw from the interview at any time or refuse to answer questions. They were also informed that their responses would be treated confidentially. They signed a declaration of consent, in which this information was given. The participants were encouraged to maintain confidentiality about information gained about each other during the interview. Refreshments, such as tea, fruit, and cakes, were served during the interview.

One of the interviewers read the vignette to the participants before asking questions for discussion. The same interview guide was followed for both interviews. The main questions were as follows: "Does Ali/Nora have a problem?," "What are the most efficient ways of dealing with his/her condition?," and "What are the likely reasons for the condition?." The questions followed an interview guide that was developed based on theoretical considerations and on exploratory, in-depth interviews conducted during the preparatory stages of the project. The interviewer maintained a high level of control over the discussion, introducing general issues and probing or interjecting to ensure that the groups covered all the essential points, that all participants were active, and that the conversation was focused. Considerable latitude was given to permit free discussion of issues, unsolicited opinions, and unexpected responses.

Analysis

Videotapes from the focus group interviews were transcribed verbatim into Norwegian, masking the identity of participants. In addition, facial, non-verbal communication cues were transcribed. Data were analyzed in accordance with the principles of Template Analysis (King, 2007), which means that key topics are defined in advance. However, these topics can be modified, dispensed with, or augmented if those defined a priori do not prove to be useful or appropriate to the actual data examined. The transcripts were coded using NVIVO 10 (NVivo Qualitative Data Analysis Software., 2012). The classification of causal beliefs and coping strategies by Hagmayer and Engelmann (2014) served as a starting point for a priori categories used to analyze the data. The coding frame was then elaborated and modified as new themes and subthemes emerged in the course of the analysis. For the

TABLE 3 | Descriptive statistics of items in the CCD-CI.

Item	Men	Women	Total	95% C.I.
	M (SD)	*M (SD)*	*M (SD)*	
(1) ... reconcile him-/herself with God	5.9 (1.4)	5.6 (1.9)	5.7 (1.7)	5.36–6.04
(2) ... get more rest	5.4 (1.4)	5.7 (1.4)	5.6 (1.4)	5.32–5.88
(3) ... reflect on his/her life	5.6 (1.4)	5.6 (1.7)	5.6 (1.5)	5.3–5.9
(4) ... express his/her emotions	5.2 (1.9)	5.9 (1.1)	5.6 (1.6)	5.28–5.92
(5) ... spend more time in nature	5.5 (2)	5.6 (1.6)	5.5 (1.8)	5.14–5.86
(6) ... engage in leisure time activity to get his/her mind off the situation	5.8 (1.8)	5.1 (1.7)	5.5 (1.8)	5.14–5.86
(7) ... avoid thinking too much	5.3 (1.9)	4.8 (2.2)	5.1 (2)	4.7–5.5
(8) ... find a partner	5.2 (2.2)	5.1 (1.9)	5.1 (2.1)	4.68–5.52
(9) ... pray or get someone to pray for him/her	5.6 (1.8)	5.3 (1.8)	5.4 (1.8)	5.04–5.76
(10) ... reassess his/her life situation	5.7 (1.4)	5 (1.8)	5.3 (1.6)	4.98–5.62
(11) ... get more physical exercise	5.4 (2)	5.2 (1.6)	5.3 (1.8)	4.94–5.66
(12) ... get married	4.7 (2.5)	4.2 (2.5)	4.5 (2.5)	4–5
(13) ... start practicing yoga or meditate	4.5 (2.2)	4.4 (1.9)	4.4 (2.0)	4–4.8
(14) ... get help to reconsider his/her diet	4.6 (2.1)	3.8 (2)	4.2 (2)	3.8–4.6
(15)... keep him-/herself busy with work	4.3 (2.3)	4.1 (2.1)	4.2 (2.2)	3.76–4.64
(16) ... get a pet	4 (2.2)	3.1 (2)	3.6 (2.1)	3.18–4.02
(17) ... talk courage into him-/herself	3.2 (2.2)	3.9 (2.2)	3.6 (2.2)	3.16–4.04
(18) ... has no reason to be sad	3.9 (2.3)	2.6 (2)	3.3 (2.2)	2.86–3.74
(19) ... get help to find out if he/she is a victim of malevolent witchcraft or evil spirit	3.1 (2.1)	3.3 (2.1)	3.2 (2.1)	2.78–3.62
(20) ... stay at home until he/she gets better	3.1 (2.4)	3.3 (2.1)	3.2 (2.2)	2.76–3.64
(21) ... start using herbs and natural remedies	2.7 (2)	3.6 (2.1)	3.1 (2.1)	2.68–3.52
(22) ...does not need to do anything, it is just something that will go away by itself	3.3 (2.1)	2.7 (1.9)	3 (2)	2.6–3.4
(23) ... use medication	3.4 (2.3)	2.2 (1.7)	2.8 (2.1)	2.38–3.22
(24) There is nothing wrong with John/Ann	3.3 (2.2)	2 (1.7)	2.7 (2)	2.3–3.1
(25) ... not tell anyone about his/her feelings	1.8 (1.7)	2.5 (2.1)	2.1 (1.9)	1.72–2.48
(26) ... blame someone else	1.9 (1.4)	2.1 (1.8)	2 (1.6)	1.68–2.32
(27) ... be ashamed	2.0 (1.7)	1.8 (1.6)	1.9 (1.6)	1.58–2.22
(28) ... use alcohol or other drugs	1.6 (1.6)	1 (0.2)	1.3 (1.2)	1.06–1.54

(...), Ann/John should/needs to. Value varied from 1, strongly disagree to 6, strongly agree.

TABLE 4 | Demographic characteristics of the participants—Sub-Study 2.

Participants	Age	Residence time in Norway	Education	Family status
Man 1	25–30	1–2 years	Not finished primary school	Lives alone
Man 2	50–55	4–5 years	Primary school	Lives with family, several children
Man 3	30–35	2–3 years	University	Married, lives alone
Man 4	25–30	1–3 years	Primary school	Lives alone
Woman 1	40–45	1–2 years	Not finished primary school	Lives with family, one child
Woman 2	55–60	3 years	Not finished primary school	Married, lives alone
Woman 3	25–30	<1 year	University	Married
Woman 4	25–30	2–3 years	Primary school	Married
Woman 5	25–30	1–2 years	High school	Married, lives alone
Woman 6	30–35	2–3 years	Unknown	Lives alone

superordinate theme "causes," the "supernatural causes" category was merged with the "traditional causes" category. Religious causes/explanations were also included in this category, which was labeled "supernatural, religious, or traditional causes." For the superordinate theme "coping strategies," the "non-Western," and "alternative treatment" categories were combined to form one category labeled "palliative coping." It was defined as looking for diversions and occupying oneself with other things in order not to think about the problem, for example, by trying to feel better by relaxing or exercising (Sandal et al., 1999).

Results

Explanatory Model of Depression and Possible Causes

Explanatory model of depression

All the participants were able to associate the symptoms of the vignette character with either someone they knew or themselves. The depressed condition described in the case was explained by participants as "illness of thoughts" or something spiritual inside the person that has to be taken out. This (spiritual) entity was described as having both cognitive and emotional components, but no biological basis. Man 2 made the following comment:"*[making a gesture from the heart and as if he wants to symbolize that weight must be taken off his heart] We have a proverb [in Somalia] that says that, if we have things that we keep to ourselves, the thing may hold you back also. That means that having a problem and keeping it to yourself is a problem in itself. It will only increase the problem. So to speak out and speak to others, it is of real help!.*"

Choice of coping strategy depended on their understanding of the underlying causes, as illustrated by the following quote from Man 3: "*What I would do first... [in] the first place, I would have talked with him and I would ask why, what had happened to him, I would have a conversation with him and find out.... So after I have received information from him, I would have found out and assessed what assistance I could offer him... problems that you may experience, there might be different causes [for them]. You may have family problems, and this [disorder] has something to do with the family, or he may have experienced war and been subjected to serious situations. The other things that can cause sadness and stuff [in the] described situation, [that could be] for example, the use of drugs... a lot of drugs.*" Both groups discussed the most likely explanation for the condition of the vignette character and appropriate coping strategies, and agreed upon the importance of considering psychological and supernatural, religious, and traditional causes. While stress was also mentioned as a possible cause, there were differences among participants about the kind of stressors that could cause depression. Biological explanations were briefly mentioned, but only in the male group.

Personality/psychological causes

Most of the participants attributed the depressive symptoms of the vignette character to his/her family situation, specifically to not being married and living alone. Being single meant that it was difficult to receive support from others, and it could also lead to feelings of loneliness: Man 1 commented: "*Loneliness is the reason why he has such a difficult time. If you live entirely by yourself all alone, one thinks very much about different things, there are lots of things that come into your head [points to his head].*"Several of the participants linked the situation of the vignette character to their experience of loneliness when coming to Norway. Man 3 said: "*I can only mention that, when I was in my home country, I lived with my wife, I also lived with my other family. And I had a job to go to. But what I have right now... I can only attend Norwegian courses and go home. It is only me who lives here...alone...so it can also be difficult.*"Man 4 added: "*When I was sick in my home country, there everybody was with me, even my grandparents, all my siblings... Relatives... They would come to me and show me their support... They would show me that they care. By showing they cared about me, because of that, you become relieved in a way, you feel like they are sharing with you, this pest, and this illness. But here, even today, I feel ill, but there is no one sharing with me. Everything is for me alone.*"

In Somali culture, family is a broad term, including not just nuclear family members, but also uncles, aunts, cousins, and more distant relatives, sometimes even people who are not biologically related, such as members of the same clan/community. Participants in the interviews mentioned that, when one person experiences a problem, the family will meet and discuss the nature of the problem. In this way, the community decides the reason for the problem. Parents and elderly members of the community are especially influential in this process. The following quote from Man 4 illustrates how the perception of cause and coping choices were interlinked: "*I can only mention that... if one gets sick in Somalia; primarily one has to talk about his illness to his parents. So parents will find out about what kind of illness their children have and if they find out it is a psychological problem, mental illness, they find someone who is something like a healer, one who knows the Quran, an institution where they can treat that, if they mmm ∗ find that it is a disease that the body has received... that needs medical care, they seek help from a doctor. It depends on what kind of problem you have.*" The latter quote is in line with the results from the survey. It indicates that parents' views strongly influence the use of mental health services, as well as which treatments are deemed appropriate.

The authority and respect expected to be shown to parents and the elderly was described as sometimes frustrating by the younger participants, who noted that it collides with the more egalitarian values of Norwegian culture. Participants in both groups mentioned that younger Somalis in Norway may expect more freedom and autonomy than older members of the community are ready to give them. Man 3 said that this gap, caused by cultural difference, may prevent parties from seeing and understanding each other: "*In particular, I can say that, if the parents come from Somalia or Ethiopia or other African countries [talking about the parents of the person in the case], they bring with them the solidarity, the collective... identity... so it might be difficult for them to see... and understand... [that] their children have grown up here and bring with them a different culture. Their children, who grow up here, these kids have with them the Norwegian culture as well. They live for themselves and they keep more to themselves. So what we can see here [talking about the case], we can see that he has grown up here, he has the Norwegian culture with him as well [in addition to the immigrant culture].*" This situation may cause frustration for young people, as illustrated by the following quote from Woman 3: "*We have a culture where we respect the elderly very much, parents are very important. Sometimes we don't want to, but we respect what they have to say, yes. Even, if we don't agree with them. Because of respect, we agree with them even if we don't agree. This can also create sadness.*"

Supernatural, religious or traditional causes

The significance of religion (Islam) to mental health beliefs and coping preferences was strongly emphasized in the interviews. Being a "*bad*" Muslim, Jinn possession, or both, could be reasons

for feeling like the vignette character. The following quote is from one of the oldest participants, Man 2: "*Research shows that people who experience stress and psychiatric disorders, it is mostly people who don't believe in anything.*" Following this statement, the participants explained that Muslims who don't follow the guidelines described in the Quran (regarding smoking, drinking, etc.) have a higher chance of "getting" mental illness. *One* quote from a member of the male group illustrates this: "*We believe that good Muslims don't get psychiatric disorders and stress like that [as described in the vignette].*"

Until the end of the interview, neither of the groups discussed religious beliefs, especially the folk belief that mental health problems can be caused by Jinns. When the topic was introduced, the translator for the female group asked: "[Participants have a lively discussion, then the translator asks them to pause] *I can tell you one thing..... Have you heard about Jinn?* [Interpreter speaks slowly]... *Do you know what Jinn means*?" The participants explained that belief in Jinns is strong in the Somali community and that Jinns are often perceived as being responsible for mental illnesses. Jinns have the ability to possess and to take over people's minds and bodies. They can take different physical forms, and they have free wills like human beings. Jinns are normally invisible in the human realm, while humans appear clearly to Jinns. The participants described several ways in which humans may become possessed by Jinns, for example by walking in areas inhabited by these spirits (e.g., mountains or by the sea). The possibility that the vignette character is possessed by a Jinn was discussed by both groups. They concluded that this could only be determined by an imam or a healer, who also possesses the power to expel the spirit.

Stress (externally caused)

Participants recognized that depression could result from stress and trauma before and during the flight from Somalia. Trauma, such as rape, witnessing violence, war crimes, or losing a close friend or relative, were mentioned as experiences that could predispose a person to experiencing depressive symptoms. However, the participants differed in their willingness to discuss difficulties in the past. Older participants, in particular, were less active when talking about trauma. Woman 5 commented: "*It's like past... [points at her head] something is haunting her, something that made her sad happened to her, and now it is haunting her and it is making her sad. I don't know, maybe something very bad happened in her childhood, something in the past and it is haunting her, sometimes it stays for a while, sometimes she forgets. Maybe she is scared or... Maybe she thinks that it is going to come back ... Because, I also had it very painful and could not sleep and stuff. Then I went to the doctor, and he said, you are not sick, but maybe you have something that you think about. When I found out [what was bothering me] I became completely healthy. But maybe she has something in her mind... that she has not seen yet.*" Woman 1 interrupted and said: "*Or maybe she had a boyfriend and they were going to get married and then he said no [most participants laugh].*"

Biological causes

Substance abuse, especially of khat, was mentioned by both groups as a possible reason for the condition of the vignette character. Khat is a green-leafed shrub that has been chewed for centuries by people who live in the Horn of Africa and the Arabian Peninsula. Chewing khat was described as common among men in the Somali communities, also in Norway. Members of both groups stressed that they would not use khat themselves, but that they knew people who did. None of the respondents mentioned other physiological mechanisms (medical problems) as possible reasons for the condition of the vignette character.

Coping Strategies

Coping strategies were grouped into five categories: social support, religious, or supernatural practices, palliative coping, bio-medical treatment, and psychological treatment. Because many participants found it difficult to conclude about the main cause of the depressed condition of the vignette character, they emphasized the necessity of considering several coping strategies simultaneously.

Social support

Virtually all participants described the importance of seeking social support when trying to cope with symptoms of depression. Talking about the problem was thought to be helpful in terms of releasing emotions. Moreover, seeking the company of others was seen as important to distract the depressed person from excessive worries and intrusive thoughts. In line with the results from the survey, the most important sources of social support were considered to be parents, family authorities, or a spouse. However, since many Somalis do not have their family or intimate partner in Norway, participants also talked about the need to draw on other people in their ethnic community, e.g., friends or other Muslims. Several of the female participants stressed the importance of making active use of all available social resources, including neighbors and work colleagues. Woman 6 commented: "*Instead of just sitting alone, behind locked doors, it is much better to go to family, friends, or, not least, to neighbors, and talk. You talk and get better, you become healthier.*" As the vignette character was described as being single, it was emphasized that he/she needed to get married. Finding a spouse was thought to stimulate new thoughts and perspectives on life, to give them other problems to think about (e.g., children) and someone to lean on for emotional support. These factors were seen as important by participants, regardless of age or gender. Man 1 commented: "*I think that if he marries, he will get somebody he can be with and then he will not need to feel lonely as he gets somebody to be with, somebody to share with. Happiness and all that.*" Woman 1 said: "*Maybe if she marries, perhaps with somebody... finds a man, her life will change, they are together, she becomes pregnant... maybe she gets a baby. Then it becomes a completely different life, really, in a way... If someone becomes like that in Somalia [referring to the vignette character], they must marry at once. So they get better!*"

The collective responsibility of the Somalis in supporting members of their community was highlighted. Support could entail advice about treatment and coping behavior, financial aid for seeking treatment abroad, finding a suitable partner to marry, religious guidance, and praying. This is illustrated by the following comments from Man 1: "*Since he is 27 years old,*

somebody should find him somebody to marry! If he marries, he will not be alone anymore. [Most participants nudge at each other]..." Man 2: "*If the family don't have enough money to send him for treatment, the extended family and friends-community will help... Family will pray for him, and ask others to pray for him.*"

Religious or supernatural practices

Even though religious coping behaviors were addressed late in the discussions, they proved to be seen as key coping strategies. Participants emphasized that Islam obliges Muslims to care about each other as they all are members of one religious community. They also talked about their belief that life on Earth is a test that everyone must go through before they are rewarded with a better life with Allah. This was illustrated by the following comment by Man 4: "*I think that for us Muslims, if I, for example, get this kind of problem, this type of problem [referring to the case], and my friends come to visit me, the first thing they would start with, the first thing they would recommend me to do, they would recommend me to look after and to take care of my religion and follow it and practice [being a good] Muslim in a way, and they would also give me advice, advice...they would also say that; it is a short life, another world exists, and we work toward another life.*"

In line with the quantitative data, the most important religious practice was reading or listening to the Quran, either alone or together with family, followed by seeking advice and guidance from a religious leader or a professional healer. Quran readings were believed to help to cure all illnesses, as illustrated by the following comment from one of the older participants, Woman 1: "*Somebody should read from the Quran for her! Because the Quran can cure everything! All illnesses. Yes!*" The participants differed in their opinions about whether the condition of the vignette character was severe enough to engage an imam. There was also a discussion, specifically between female participants, about whether reading or listening to the Quran should be tried before medical treatment was sought, concurrently with medical treatment, or following medical treatment if the treatment was ineffective.

Several participants talked about acquaintances suffering from similar symptoms to the vignette character who had been dissatisfied with the treatment they received from Western health practitioners, and the positive effects once traditional "treatments" were used. Man 3 commented: "*I know a girl here in Norway, and they went to different doctors in Norway, but nothing helped, then I and several people from our community recommended her family to read from the Quran, and that helped.*" Participants said that many Somali people preferred to return to Somalia or other African countries for treatment. In Somalia, people would contact a traditional healer in addition to an imam if a problem such as that described in the vignette arose. Healers in Somalia could work independently or alongside general practitioners or an imam, with practices often including herbal medications, prayer rituals, and fire burning (touching the skin with a heated stick). The comments made by Man 1 exemplify how a visit to Somalia could also have other positive effects on depressive symptoms: "*I also experienced earlier that many people from the diaspora, they return from Somalia, they get this kind of psychological problem, stress and stuff, and then the reason for that is, the people were accustomed to living in a very large family, but suddenly, when they came to Europe, they were completely alone, they had nothing between work and home, they had no others. So when they get a problem like that in the diaspora, they return to Somalia. So the first treatment they receive, and what we also experienced when we were there, is treatment with the Quran.*"

Palliative coping

Various physical activities (e.g., yoga and walking), traveling, and getting more rest were considered effective means of temporarily reducing depressive symptoms. This is in line with the results from the survey. Man 4 commented: "*He lived in Oslo, alone and without family, and then for him it was important to take time off from work and rest, and change the climate and that can help! Yes. That can help.*"Stress-reducing activities needed to be congruent with being a Muslim. For example, one of the younger female participants, Woman 6, noted that she could not exercise in a health studio because she was a Muslim, but she did yoga at home and went for long walks. Another woman commented that walking long distances improved her sleep: "*Yes for me, it can help, physical activity! Because, for me, before I could not go to sleep early, not before one o'clock, I was not tired, I started exercising, finish at 20, home at 21, then I am ready to sleep.*"Khat chewing was also mentioned as a possible way of reducing stress. Even though participants mentioned that khat is commonly used by Somali males, they highlighted that they would not recommend it due to its serious side-effects.

Bio-medical treatment

Bio-medical treatment refers to visiting a medical doctor and to the use of medication. The survey data showed that women were more positive toward visiting medical doctors, although taking medication for relieving depression was not endorsed. These findings were in line with data from the interviews. While several female participants told about positive experiences with medical doctors, the older participants in both groups, in particular, were more skeptical. The possible benefits of taking medication were briefly mentioned. If medical doctors were contacted, concrete advice and solutions were expected, as illustrated by the following comment from Woman 5: "*I had [referring to the problem as described in the vignette], but not thinking... I just had a little bit of pain in my back [points to her back] I was very sad, very... I didn't want to go to school, when I went to the doctor, and then he told me, you don't have any problems, you are just stressed. I had some family problems. And he told me that, if you continue like this, you will develop bigger problems. It's best that you start doing physical exercise. I cannot give you any medicine, but I can only send you to a psychologist. I didn't go to a psychologist, but I did like what my doctor told me, I went to do physical training... All the pain that I had here [points to her back again], I had a lot of pain, and it's gone [claps her hands together], I just did what my doctor told me. Now I am happy.*" Most participants agreed that they would contact a doctor if they had suffered from a more severe condition than the vignette character. One women with a medical background said: "*In Somalian culture, actually, if you have stomach pain or something like that, you can go to the doctor,*

but with Nora's problems [the vignette character], then they don't go to the doctor so much. They will often try in another way. They will go to an imam or a Sheikh so they will read the Quran for her. Yes. So if it gets worse in a way, then one can go to a psychologist."

Psychological treatment

Psychological treatment, referring to the use of a psychologist or other mental health worker, was briefly mentioned early in one of the interviews. However, their ideas about psychologists seemed vague, and psychologists were sometimes confused with medical doctors. Like medical doctors, psychologists were expected to provide concrete solutions that would effectively cure the depressed person. Woman 3 commented: "*For me.... If she goes to a psychologist, she can tell all about how she feels. Her sadness... that she cries during the night. Things like that. So, maybe the psychologist can find a solution.*" When she was asked about what she thought a psychologist could help her with, she answered: "*A psychologist... or a doctor, doctor, doctor have learned how to treat in a way... A psychologist understands your soul. Yes. So he can find a solution. Yes!*"

FINAL DISCUSSION

The aim of this mixed-method vignette study was to identify lay explanatory models of depression among Somali refugees in Norway. The results showed that religion and social relationships carried great weight, both in relation to etiological beliefs and views about efficient coping behavior. Both the survey and the interviews suggested that these refugees were likely to try to cope with depression through religious practices and reliance on family, friends, and the ethnic/religious community, rather than through professional treatment from public mental health services.

Etiological Beliefs and Implications for Treatment

Past research has shown that seeking professional mental health treatment is relatively rare among Somali refugees compared to the majority population. The findings from this study suggest that how Somali refugees interpret and treat depression is distinct from the common understanding among people in Western countries, who are apt to view depression as a mental illness requiring professional treatment (Karasz, 2005; Hagmayer and Engelmann, 2014). Depressive symptoms tended to be interpreted by our respondents as an "illness of thoughts" ("thinking too much"), with cognitive and emotional components but no biological basis. Depression, as described in the vignette, was not perceived as a physical or medical disease requiring professional treatment; rather, it tended to be seen as a condition primarily caused by supernatural or religious influences (e.g., being a "bad Muslim," possession), the social situation, and/or as an emotional reaction to difficult life situations (e.g., loneliness and isolation). Similar findings were reported in a study carried out in Uganda, where depressive symptoms (without psychotic features) were also referred to as "illness of thoughts" and associated with thinking too much (Okello and Ekblad, 2006).

The interpretations of the causes of the depression had implications for how our respondents thought the condition should be managed. Engagement in leisure activities and spending time with family (or other people) were viewed as efficient ways of coping (interviews and survey), and as ways of diverting attention from the problem and stopping rumination (interview). Religious practices were suggested when the suspected cause was religious/spiritual. The view that the condition of the vignette character could be the result of spiritual causes or possession by an evil spirit is consistent with the traditional belief system of Somali culture (Ryan, 2007; Mölsa et al., 2010). El-Islam (2008) noted that belief in the existence of Jinns may prevent patients and family members from recognizing medical or psychiatric problems. According to Bentley and Owens (2008), many Somalis believe in religion as medicine, more than in interventions by a doctor or multidisciplinary team. For the respondents in the present study, the first line of healthcare treatment was religious practices: reconciliation with Allah (survey) and reading the Quran (interview). These findings are consistent with the literature and emphasize the significance of religion in helping Somali Muslim immigrants and refugees to cope with difficult circumstances (Whittaker, 2005; Mölsä et al., 2016). Some participants in the interviews indicated that medical doctors were not perceived as useful because they have no power over the spirits, which, according to folk belief, may be responsible for mental illnesses. Everyday practicing of Islam could also be considered a palliative coping strategy, because it provides relief and comfort that help to alleviate concerns and worries.

Aside from religion, the life situation of the vignette character was the most frequently discussed possible cause of his or her depressed condition. In particular, the vignette character's situation as unmarried and living apart from his or her family was highlighted. On a more general level, loneliness due to leaving behind their social network in Somalia was mentioned as one of the main reasons why Somali refugees develop symptoms of depression. Some participants indicated that depression is not as common in Somalia as it is in Norway, because people are embedded in a tight and supportive social network of family and clan members. However, trauma prior to or during flight and acculturation challenges were also mentioned as factors that could explain the condition. When symptoms are viewed as emotional reactions to life events and situations, this is referred to as a *situational model of depression*, which is found to be a common belief system in traditional societies and minority communities in the West (Patel, 1995; Karasz, 2005; Cabassa et al., 2008). This belief system implies that the source of the disorder is not within the individual but rather outside him/her—it is the context that requires "adjustment." Studies show that a situational model is often associated with negative attitudes toward professional treatment (Jorm et al., 2000; Lauber et al., 2003). According to Karasz (2005), the Western perspective tends to view emotions as internal, often biological and, above all, a feature of individuals rather than related to situations, relationships, or moral positions. Divergent ontological and epistemological systems may yield divergent and even conflicting approaches to diseases in clinical practice.

Western bio-medical guidelines prescribe antidepressants and psychotherapy as the most effective treatment for depression (World Health Organization, 2012; National Institute of Mental Health, 2013), and lay people from Western countries tend to share this view (Schomerus et al., 2012).

In the survey, seeking help from medical doctors was ranked below seeking help from family, friends, and religious leaders, a finding that is in line with the perspectives of the participants in the interviews. This suggests that mental health treatment in the context of the social group and religion may create more acceptance and compliance among Somalis. Individual therapy seems to be at odds with the collectivistic approach of Somali culture, a factor highlighted by the participants in the focus group interviews.

Ethnic Identity

Many Somalis in exile identify strongly with their ethnic group (Jorden et al., 2009; Lambo, 2012) and with being Muslim (Brons, 2001; Mölsa et al., 2010; Lambo, 2012). In the present study, the significance of culturally related beliefs and norms was reflected in the causal attributions of the depressive symptoms and in what was regarded as effective coping behavior. Somali culture organizes relations of interdependency in role-based hierarchical terms. In terms of coping behavior, the impact of a strong ethnic identity could be observed in several areas. Firstly, both the interviews and the survey data showed that the refugees chose to turn to members of their ethnic community for support and guidance before seeking help from public health services. This is in line with other research (Colic-Peisker and Tilbury, 2003). In the interviews, several participants emphasized that Somalis in the diaspora had a strong responsibility for looking after each other; this was also because of the bonds to the same religion (Islam). The importance of showing obedience to the views of the elderly, parents, and religious leaders was emphasized in the interviews. Thus, these authorities may act as "gatekeepers" for access to local mental health services, particularly for women and youth. Secondly, ethnic/religious identity seemed to some extent to limit the coping behavior deemed appropriate; for example, several females in the present study preferred individual exercise, such as yoga at home or walking rather than attending mixed-gender classes at gyms, because that was not appropriate according to Islam. Thirdly, several of the participants in the interviews suggested that traveling back to Africa could be an effective means of alleviating depressive symptoms. This was due to factors such as climate and the opportunity to interact with family and other clan members. Visiting Africa was also thought to give access to better traditional healers and mental health care services than are available in Europe. The latter aspect is consistent with past studies (Feldman et al., 2006; Gerritsen et al., 2006; Svenberg et al., 2011), which have suggested that low confidence in European health care and a wish for a "second opinion" lead many Somalis to seek medical advice and treatment in other countries. According to Tiilikainen and her colleagues (Tiilikainen and Koehn, 2011; Tiilikainen, 2012), transnational care is an important resource for Somali migrants. They noted that traditional healers in Somalia provide migrants with explanations and alternatives, in particular in the area of mental health and chronic diseases where medical diagnoses may be difficult to accept.

Kuo (2011) noted the existence of divergent coping patterns among immigrants with varying degrees of acculturation, and specifically that less acculturated cohorts preferred collective coping and avoidance coping methods. That the respondents in our study tended to prefer to approach mental health problems according to the belief systems of their culture of origin rather than using local health services is consistent with many Somali refugees being poorly integrated into Norwegian society. At the group level, they rank lower on psychosocial parameters such as employment and income (Østby, 2016), education, housing, and literacy than other ethnic groups (Ihle and Haider, 2001; Klepp, 2002; Engebrigtsen, 2004). Segregation, or rather the concentration of minorities in particular areas, has been observed in several European countries (Open Society Foundations, 2015). Somalis are found to be at risk of discrimination (Open Society Foundations, 2015), which is a further barrier to integration and may increase their experience of being "outsiders." According to Fangen (2006), these features make Somali refugees in Norway vulnerable to feeling humiliated, and they may react by distancing themselves, leading to a reorientation to their own traditions and culture, and to living a life on the margins of Norwegian society. This perspective may also explain observations from the present study. That respondents in this study preferred to rely on their ethnic network to deal with depression may reflect that they feel isolated from mainstream society. They may also know little about local health services. There is a risk that this coping pattern could result in late treatment, if any is sought at all (Bhui et al., 2003b; McCrone et al., 2005).

LIMITATIONS

The combination of a survey and focus group interviews enabled us to elicit rich contextual information that is rarely reported in the literature. Nonetheless, some methodological considerations should be borne in mind when interpreting the data. The data reported are cross-sectional. The study only focused on assessing causal beliefs and ideas about effective coping. Thus, we did not consider the potential effectiveness of different coping behaviors in terms of relieving depressive symptoms. The study leaves this important topic open for future research. The present study uses a vignette methodology. Participants in both interview groups readily recognized the symptoms described in the vignette, and no one seemed to have any difficulty interpreting them and recommending strategies for coping. However, we cannot conclude whether the responses of our subjects can be generalized to how they would have reacted personally in the vignette character's situation. The possibility of drawing inferences about the impact of culture on the explanatory model of our respondents is also limited by the lack of a native Norwegian (or Western) comparison group. Cultural differences in explanatory models may vary according to the severity of the depressed condition. In Somali culture, there is no gray area for mental disease; you are either sane, or insane (Nwaneri et al., 1999). Only the latter conditions are considered worth seeking medical/professional attention for Njenga et al.

(2012). Thus there is no continuum of mental diseases. As the vignette character in this study suffered from a mild to moderate depression, he/she might have fallen outside the demarcation line of being perceived as "insane."

Future studies may like to consider comparing the responses of a clinical sample to those of lay people. Methodologically speaking, longitudinal studies measuring and tracking how migrants' coping behaviors and mental health evolve across different phases of their acculturation process are desirable. Moreover, while individual variations were noted, our focus was on similarities in participants' perspectives rather than differences. Future research should more systematically address how differences might be related to individual factors, such as age, gender, education, pre-acculturation status, and acculturation.

Potential bias relating to the data collection methods and procedures also needs to be pointed out. In the interviews, the differences in the cultural backgrounds of the interviewers and the informants could have resulted in misunderstandings. The informants' trust in the interviewers and other participants, as well as feelings of shame and anxiety about the mental health problems themselves, may have influenced their motivation to express their thoughts and opinions. The responses of the survey participants could be biased by factors such as social desirability, lack of familiarity with questionnaires, and illiteracy. Nonetheless, the validity of the results is supported by the high consistency between the quantitative (survey) and qualitative (interview) data, and by correspondence with past research. Furthermore, resource persons from the Somali community were consulted prior to data collection and again later regarding interpretation of the results.

The reader should be mindful that the study was conducted in a Norwegian context and that it might not be possible to extrapolate the results to refugees living in other countries, because possible coping behaviors and help-seeking sources are contingent on the environment and structural resources (e.g., community or mental health services). The response rate for the survey is relatively low, but comparable to other studies among minority populations (Perez et al., 2011; Abbot and Compton, 2014). Nonetheless, one should be mindful that the results may not be generalizable to a more heterogeneous sample of Somali refugees in Norway. Compared to the larger population of Somali refugees in Norway, the employment rate was higher among the participants in the survey and the majority of the respondents were relatively young. Participation in the survey also required language and reading skills that many Somali refugees do not have, in particular those with shorter residence time in Norway.

IMPLICATIONS AND CONCLUSION

The purpose of the current study was to explore how causal beliefs about depression are related to the choice of coping strategies among Somali refugees living in Norway. Despite its exploratory nature, the key strength of this study is its combination of quantitative and qualitative methodologies and the variation within our samples in terms of residence time. Consistent results emerged across the two sets of data. Taken together, the findings suggest that many Somali refugees continue to adhere strongly to causal beliefs and coping patterns from their culture of origin. The ethnic community influences which coping strategies are viewed as effective and acceptable, and it offers resources in the form of support and guidance. These results have implications for clinical practice. Establishing working alliances between mental health caregivers in the country of settlement, the Somali ethnic community, and religious/spiritual authorities might be critical in relation to reaching individuals in need and to their acceptance of and compliance with treatment. Equally important is the need for health professionals to discuss an explanatory model for the disease with the patients prior to diagnosis and treatment. For example, Dein and Illaiee (2013) noted that, since Western health professionals tend to be unfamiliar with the attribution of psychiatric symptoms to Jinns, diagnosis may prove challenging, especially when the patient–physician meeting is already impeded by language problems and cultural differences. Guthrie et al. (2016) showed that belief in Jinns and spirit possession may result in Somali patients being misdiagnosed by Western health professionals. According to other researchers (Khalifa et al., 2011; Dein and Illaiee, 2013; Lim et al., 2015), understanding the belief system and introducing a spiritual dimension to therapy may increase the efficacy of treatment among ethnic groups who are predominantly Muslim. Given the influx of immigrants to many European countries, ethnically tailored treatment programs may be integral to eliminating health care inequalities and providing high-quality patient care for all members of the population.

AUTHOR CONTRIBUTIONS

Both authors have been active in the study design, data collection, analysis, and manuscript writing.

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