The Role of Religious Social Support in Depression

The Relationship between Religious Social Interaction, Perceived Emotional Support and Depressive Symptoms

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Abstract

This study aimed to investigate the association between religious social support and depressive symptoms. Previous research does not present a consensus about the relationship between religion and depression. Still, a number of studies do suggest that religion and social support can have a beneficial effect on depressive symptoms. However, religious social support in particular was not the focus of many studies regarding depression. The possible beneficial effect of religion and religious social support could have trans diagnostic implications and therefore emphasise the need for further investigation. It was assumed that increased contact to other believers and visits to religious meetings can promote religious social support and in turn decrease depressive symptoms. Religious social support was mostly measured by assessing the amount of church attendances. In order to gain a more detailed view of this concept a multidimensional approach was applied and the sub concepts religious social interactions and perceived emotional support were assessed. Using the Brief Symptom Inventory (BSI) two groups were formed with people scoring high or low on depression and compared with each other regarding their level of religious social interaction and perceived emotional support. The results imply that there is no significant relationship between religious social support, its sub concepts religious social interaction and perceived emotional support, and depressive symptoms. Nonetheless, on item level it was possible to suggest that religious (spiritual) meetings are visited more often by people with higher depression levels than people with lower depression levels. Additionally, people who perceive more support from other believers have less depressive symptoms. These findings provide support for the notion that one way or another there is an association between religion and depressive symptoms. Therefore future research should gather more insight into the relationship between religious social support and depression by using a more suitable operationalisation and instruments of these concepts.

Samenvatting

Het doel van dit onderzoek is het om inzicht te krijgen in de associatie tussen religieuze sociale steun en depressieve klachten. Tot nu toe konden onderzoeken geen consensus met betrekking tot de rol van religie in depressie presenteren. Desondanks zijn eer een aantal onderzoeken die een positief effect van religie en sociale steun op depressieve klachten aantonen. Religieuze sociale steun in he bijzonder, werd echter in weinig studies onderzocht. De mogelijke positieve effecten van religie en religieuze sociale steun op depressieve klachten zouden trans diagnostische implicaties hebben en benadrukken het belang voor nader onderzoek. Het werd aangenomen dat verhoogde interactie met medegelovigen en bezoeken van kerkelijke diensten of andere religieuze bijeenkomsten de religieuze sociale steun bevorderen en dit op zijn beurt depressieve klachten zal verminderen. Een mogelijkheid om religieuze sociale steun te meten is om de frequentie van kerk bezoeken in te schatten. Om een meer gedetailleerd kijk op het concept te krijgen werd daarom een multidimensionale aanpak gekozen. Het ontstonden de sub concepten religieuze sociale interactie en waargenomen emotionele steun. Met behulp van de Brief Symtptom Inventory (BSI) werden twee groepen gemaakt met mensen die hoog en mensen die laag op depressie scoren. In aansluiting daarop werden de twee groepen met elkaar vergeleken met betrekking tot hun scores op religieuze sociale interactie en waargenomen sociale steun. De resultaten tonen aan dat er geen significante relatie tussen religieuze sociale steun, de sub concepten religieuze sociale interactie en waargenomen emotionele steun, en depressieve klachten bestaat. Desalniettemin kon op item niveau worden aangetoond dat religieuze bijeenkomsten en bijeenkomsten met mensen van dezelfde levensovertuiging, vaker worden bezocht van mensen die een hoger niveau van depressie hebben dan mensen met een laag niveau van depressie. Bovendien, nemen mensen met minder depressieve klachten meer emotionele steun van medegelovigen waar. Deze resultaten ondersteunen de opvatting dat er op een of andere manier een associatie tussen religie en depressieve klachten bestaat. Met behulp van een betere operationalisatie en nauwkeurigere instrumenten zou toekomstig onderzoek meer inzicht kunnen krijgen in de relatie tussen religieuze sociale steun en depressie.

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1. Introduction

Where do we come from and what is our purpose in this world? How are we supposed to live our lives? What is wrong and what is right? Those questions occupy people's minds already very early in their lives (Holzer, 2014). It seems that it is inherent in people to try to find the reason for their existence and a frame of reference, as to how to live their lives.

Religion is one example of such a frame of reference, which provides norms and guidelines regarding existential questions (Vroom, 2003). Furthermore religious affiliations with a particular movement may provide people with a large social network, which can provide support and a feeling of belonging in crucial times (Hovey, Hurtado, Morales, & Seligman, 2014; Nelson, 2009). These can work as buffers for depression and generally facilitate a higher level of mental health (Cohen & Wills, 1985). Therefore it is not surprising that the relationship between religion and mental health becomes constantly more important and already has been the subject of various studies (Bekke-Hansen et al., 2013; Bonelli, Dew, Koenig, Rosmarin, & Vasegh, 2012; Braam et al., 2004; Hovey et al., 2014; McCullough & Larson, 1999; Smith, McCullough, & Poll, 2003).

Nonetheless, literature overall shows mixed results regarding the relationship between religion and mental health. Therefore it is of great importance to investigate this further. Especially, because concepts such as religion and social support have the potential to be used trans diagnostically in interventions or treatment plans. Before this is possible, it is important to investigate the association between religion and its dimensions regarding specific mental health problems.

One dimension of religiosity, which is often mentioned in literature regarding depression, is social support (Bonelli et al., 2012; Hovey et al., 2014). In one study the general social network of participants was measured as a controlling variable, suggesting that social support, on its own has a beneficial influence on depression (Braam, Beekman, Van Tilburg, Deeg, & Van Tilburg, 1997; Sherkat & Reed, 1992). In this context it was also possible to show that especially socially isolated elderly people can benefit from the social support offered by religious attendance (Braam et al., 1997). Assuming that the facilitation of religious involvement could present people with more social contact and thereby decrease depression levels (Hovey et al., 2014), it was chosen to focus on religious social support and its association with depressive symptoms. For this purpose a multidimensional approach to religious social support was chosen and the associations between the sub-concepts, religious social interaction, perceived emotional support and depressive symptoms, were investigated.

The following image (figure 1) illustrates the chosen operationalisation clearer:

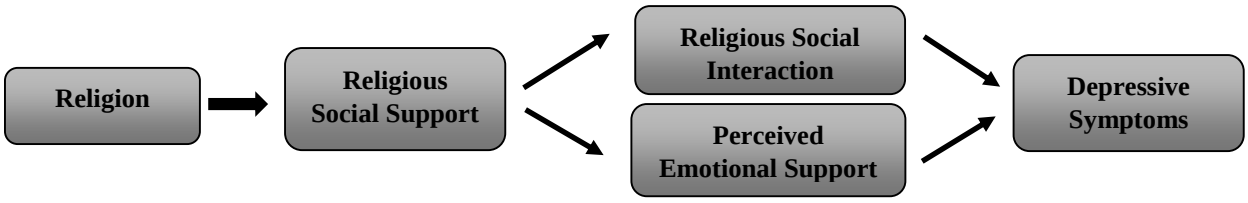

Figure 1: *Operationalization of Religious Social Support and their possible Association with Depressive Symptoms*

At first, however a comprehensive overview is provided concerning the used concepts in this study: religion, social support and depression.

1.1 Operationalization of the Concepts

1.1.1 Religion

A review of the literature shows various definitions of religion (Holdcroft, 2006). Holdcroft (2006) found that early approaches mostly focused on the religious attendance, which would represent a unidimensional concept of religion, but in the course of time it became apparent that there is more to it than religious attendance alone.

Pargament (2002) also emphasises the uniqueness of religion in his work. Using a unidimensional approach is tempting because it offers a simplified definition of a complex construct. Nonetheless it fails to represent that same complexity by neglecting, for example, personal experiences (Pargament, 2002). Additionally the gap between what is intended to be studied and what is actually studied becomes greater if the operationalization is too simplified (Slife & Reber, 2011). Religious attendance can be understood as one manner of expressing religious attitudes which in turn can be grounded in religious believes but this does not justify the reduction of religion to behavioural expressions alone (Levin & Vanderpool, 1987).

As a result a vast number of studies handle a multidimensional operationalization of religion (Ellison, 1991; Koenig et al., 2014). However, these studies vary in the number of applied dimensions, because they do not stick to one specific multidimensional theoretical concept but rather choose themselves which dimensions to investigate. Allport & Ross (1967) do present one multidimensional classification into intrinsic religiosity and extrinsic religiosity. Intrinsic religiosity describes religion as a way of life instead of as a means to an end (Allport & Ross, 1967). In accordance with this notion, intrinsically motivated people engage in religious activities, such as prayer or church attendance, because they want to act out their belief. Extrinsically motivated people use religion as a means to an end. That encompasses social interactions and support, status or distraction (Allport & Ross, 1967).

In reviewing the variety of research done on that subject it becomes apparent that the operationalization form Allport & Ross (1967) as well as Stark and Glock (1968) is most common in recent research. Those two operationalisations emphasize two different approaches to religiosity. Allport and Ross (1967) focused more on the motivation that lies behind religious actions or thoughts, whereas Stark and Glock (1968) were more interested in emphasising the plurality of what it means to be religious, building a complex measure (Stark & Glock, 1967). Criticising the unidimensional approach, they emphasized that behavioural, cognitive and affective religious aspects are closely related and need to be studied together in order to gain an insight into religiosity (Glock & Stark, 1968). Consequently, they suggested a comprehensive measurement which integrates not only single dimensions but all aspects of religiosity and increasing the effectiveness of empirical discussions about this concept (Stark & Glock, 1967). It is reasonable to assume that the different focus and encompassing operationalisations

of these two approaches are responsible for their frequent use. Still, the two mainly used approaches are often combined in research in order to investigate dimensions as well as the motivation of people (Ellison, 1991; Hovey et al., 2014; Koenig et al., 2014).

In the present study however, the focus lies on the dimensions of religiosity and not the motivation of people. More precisely, investigating which dimensions of religious social support show associations with depression. Therefore the operationalisation from Glock and Stark (1968) is favourable.

Stark and Glock (1968) distinguish five different dimensions of religiosity: (1) experiential, (2) ritualistic, (3) ideological, (4) intellectual and (5) consequential. In their distinction, the experiential dimension encompasses the personal experience of faith, whereas the ritualistic dimension represents the actions of worship in communities (Stark & Glock, 1968). Furthermore, the ideological dimension contains the professed doctrines and the intellectual dimension contains the knowledge of a religious person about his or her religion, such as history of the religion (Stark & Glock, 1968). Finally, the consequential dimension encompasses the possible implications of the religious belief for behaviour or ethics (Stark & Glock, 1968). In order to investigate the dimensions of religiosity, and more precisely religious social support, the operationalisation of Stark and Glock (1968) will be used further, providing the possibility to examine the associations that those dimensions can have regarding depression.

1.1.2 Religious Social Support

In the past, the religiosity in its entirety was measured by behavioural assessments, as for example church attendance or frequency of bible readings (Comstock & Partridge, 1972). That was later rectified by multidimensional approaches. Still, religious social support is often regarded as the contact to other religious people and deriving support from a religious setting (Hovey et al., 2014). Presupposing that frequent attendance is accompanied by increased contact to other religious people, attendance can explain the increase in social support (Hovey et al., 2014).

However, these studies fail to focus specifically on religious social support as opposed to general social support, let alone treating social support as a multidimensional concept (Hovey et al., 2014; Schnall et al., 2012). It is important to recognize the difference between general social support which can be offered by family and friends in a secular setting and religious social support which is offered by other religious people who share certain believes and world views which are grounded in faith (Krause, Ellison, & Wulff, 1998).

Hovey et al. (2014) suggest a multidimensional approach to social support and distinguish between social interaction, instrumental support and emotional support. They propose that especially perceived emotional support functions as a predictor of decreased depression symptoms. Here the emphasis lies on the certainty that one can always turn to others for support, when in need of it.

Due to the fact that religious social support is not explicitly mentioned in the operationalization of Glock and Stark (1968), it was intended to construct a new operationalization for this study, in order

to differentiate the aspects of religious social support and being able to investigate their influence on depression in greater detail.

In the present study it was possible to use data collected from a wider Dimence-research regarding religiosity and live principle in mood and anxiety disorder conducted by Schaap-Jonker (2012). As a consequence the same instrument had to be chosen, as in that study, to assess religiosity. In order to still accomplish an assessment of the multidimensional approach to religious social support, the descriptions of the five dimensions offered by Glock and Stark (1968) were compared with the descriptions of the three social support concepts of Hovey et al. (2014). The first concept social interaction can be derived from the ritualistic dimension in the classification of Glock and Stark (1968). By looking at the items in the ritualistic dimension it becomes apparent that both concern themselves with behavioural expressions, as for example service attendance or bible readings and prayer. Therefore it is possible to adopt this dimension in its entirety, but to ensure that only the contact to other religious people is meant, it was chosen to refer to this concept from now on as *religious social interaction*.

The second concept, instrumental support, refers to: "the tasks performed for the individual by members of the support network" (George, Ellison, & Larson, 2002, p. 194). Unfortunately, it is not possible to measure this concept with the given instruments, due to a lack of items that could be placed within this description. Additionally, in the study by Hovey et al. (2014) it was not possible to detect a significant influence of this concept on depression. The usage of an extended version of the religion questionnaire could be constructed for the future to encompass this concept.

The concept *perceived emotional support* needs to be constructed specifically for this study. For this purpose single items were selected from the religion questionnaire (Schaap-Jonker, 2012), which were considered to fit into this concept considering the description made by Hovey et al. (2014). A more detailed overview of the item selection is provided in the method section. Subsequently, the relationship between those two concepts with depressive symptoms can be compared. This can shed light on whether the mere contact to other religious people through attendance is beneficial in reducing depressive symptoms, as it is suggested by Zou et al. (2014), or whether perceived emotional support plays a stronger role in this association (Hovey et al., 2014).

1.1.3 Depression

Depression is part of the unipolar mood disorders and is characterised by affective, physical and cognitive symptoms (van der Does & Zitman, 2008). The empty, depressing feelings and the lack of joy and interest in activities are part of the affective symptoms. Physically, depression shows itself in terms of increased or decreased appetite and bodyweight, sleep problems, decreased vitality and fatigue (van der Does & Zitman, 2008). Finally, cognitive symptoms encompass guilt, self-doubts, problems focusing, indecision and thoughts about self-harm and suicide (van der Does & Zitman, 2008).

For a diagnosis of a depressive episode, five or more of these symptoms need to be present in a person over the course of at least two weeks, including one of the affective symptoms, which are

considered key-symptoms (van der Does & Zitman, 2008). A depressive disorder can consist of one major depressive episode or of recurrent depressive episodes (van der Does & Zitman, 2008). Furthermore a depressive episodes can be classified by different criteria, such as its severity, chronicity, catatonic-, melancholic-, psychotic- or atypical features and whether it started after childbirth (van der Does & Zitman, 2008). This handled classification corresponds the one provided by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) (4th ed., text rev.; DSM-IV-TR; American Psychiatric Association, 2000).

1.2 Relationship between Religion, Social Support and Depression

The relationship between religion and depression was the subject of many studies. These studies show mixed results. One possible reason for that are the differences in operationalization. However, the majority of studies show a negative association between religion and depressive symptoms, suggesting that increased religiosity is associated with less depressive symptoms (Bonelli et al., 2012; Hovey et al., 2014; Nelson, 2009; Smith et al., 2003). One study showed that women who attended religious services, as opposed to women who did not, showed higher than the median level of overall social support (Schnall et al., 2012), indicating that, regardless of the frequency, attending religious services promotes overall social support. Assuming that higher social support levels promote well-being and therefore decrease depressive symptoms, the attendance of religious services could enhance this beneficial effect of social support and religion on depression. Smith and McCullough (2003) found only a modest negative statistical strength regarding the religiousness-depression relationship in their meta-analysis. However they still acknowledged the importance of this finding, describing this relationship as a: "reliable phenomenon" (p. 630). The amount of research regarding this relationship supports their statement.

Nonetheless, there are also a number of studies which present a positive association between religiousness and depression, suggesting that higher religiosity is associated with more depressive symptoms. In one study it was suggested that non-organizational religiosity, which included prayer and importance of religious beliefs, exacerbated depressive symptoms related to family issues, such as child problems, marital problem, abuse and caregiving (Strawbridge, Shema, Cohen, Roberts, & Kaplan, 1998). Therefore it was assumed that the emphasis that lies on family in some religions, produces pressure to provide and maintain a good family life. If this fails, feelings of guilt and depression can arise (Bonelli et al., 2012). On the other hand the study by Strawbridge et al. (1998) also suggested that for issues not related to family, both non-organizational and organizational religiosity was beneficial in decreasing depressive symptoms. Thus indicating that personal importance of religious believes as well as organizational aspects, such as the participation in religious events, are beneficial as long as the focus does not lie on family issues.

The relationship between religious social support and depression is often reduced to social interactions, such as church attendance or organizational religiosity (Ellison, 1991; Koenig et al., 2014;

Strawbridge et al., 1998; Zou et al., 2014). Although these studies discovered negative associations between social support and depression, some of them suggest that this association is mediated by other factors, such as religious certainty, unambiguous faith or perceived emotional support (Bekke-Hansen et al., 2013; Ellison, 1991; Hovey et al., 2014). Overall, research on social support in religious settings is insufficient. At first, religious social support was presupposed to be a beneficial side aspect of religious attendance and not even investigated on its own (Hovey et al., 2014; Schnall et al., 2012). Later, research then only focused on a unidimensional approach (Comstock & Partridge, 1972; Levin & Vanderpool, 1987). Especially religious social support, as opposed to the overall social network of participants, should be considered. That way assumptions can be made about whether the general concept of social support is helpful in dealing with depression, or whether there are further benefits of having a religious social support system. In turn, by investigating religious social support as a multidimensional concept it is possible to detect aspects of it, which are particularly helpful.

Therefore in this study the first focus will lie on the association between the constructed religious social support concepts with depressive symptoms. Although the literature research yielded mixed results, the majority points toward a negative association. This will be adopted in the formulation of the hypothesis. According to the study by Hovey et al. (2014) it is suspected to find a stronger negative association between perceived emotional support and lower levels of depression, as opposed to the association between religious social interaction and depression levels.

Additionally, it will be focused on the differences between people who score high on depression and people who score low on depression regarding their religious social support levels. By doing so, assumptions could be made about the role of perceived emotional support or religious social interaction regarding their influence on depressive symptoms. If, for example, people with high depression levels would score lower on perceived emotional support than people with low depression levels, this could suggest that perceived emotional support could have a buffering nature and that it should be promoted in people suffering from depression.

1.3 Relevance

The World Health Organization ranks depression as the 4th leading cause of disability worldwide (Kessler & Bromet, 2013), which emphasises the importance of investigating methods for reducing the risk and recurrence of depression. Additionally people who experienced one major depressive episode have a lower threshold for experiencing another (van der Does & Zitman, 2008). That results in a recurrent pattern. Beyond that, available treatments do not always reach the people in need (Kessler & Bromet, 2013).

Although there is research supporting the positive effects of religion, the mental health community has not integrated these insights in their practices (Nelson, 2009). That is unfortunate considering that according to Oppenheimer, Flannelly and Weaver (2004), such a collaboration would have many advantages. In their study they found that many people seek help regarding mental health

from religious entities and that ultimately clergy deliver more mental health services than psychologists. On the other hand people seeking help form mental health professionals often come with problems regarding their spirituality or religion (Nelson, 2009). Furthermore psychologists and other mental health professionals could have access to a large number of people with mental health problems, by collaborating with the clergy (Nelson, 2009). Hence, it would be possible to promote the utilisation of mental health programs among people who are in need of mental healthcare, yet reluctant to seek mental healthcare, such as minorities and people living in rural areas (Nelson, 2009). Gaining insight into the possible influence that religiosity can have on depression is therefore helpful in drawing implication for psychotherapy practices (Nelson, 2009).

The high prevalence of depression (Kessler & Bromet, 2013) and the potential implication that a trans diagnostic construct, such as religious social support, could have for mental healthcare, highlights the importance for its investigation.

1.4 Research Questions and Hypotheses

The overarching research question in this study, is regarding the relationship between religious social support and depression: *Is religious social support associated with depressive symptoms?* Based on this main research question, the following sub-research questions and their corresponding hypotheses can be formulated for the present study:

1. Is religious social interaction associated with depressive symptoms?

H1: Higher religious social interaction is associated with less depressive symptoms.

2. Is perceived emotional support associated with depressive symptoms?

H2: Higher perceived emotional support is associated with less depressive symptoms.

3. Are there differences in perceived emotional support and religious social interaction between people who score high on depression and people who score low on depression?

H3: People, who score high on depression, score lower on perceived emotional support and religious social interaction, than people who score low on depression.

2. Method

In order to investigate the previously listed research questions and hypotheses, the data collected in a clinical setting, by the Dimence-study by Schaap-Jonker (2012), were combined with data collected in the course of this study in the general population. First a broad overview is provided over the Dimence-study: "Religie en levensovertuiging bij angst- en stemmingsklachten" (Religion and life principle within anxiety- and mood disorders). Then the criteria for participation are listed, before focusing on each instrument used in this study. Finally, analysis which was performed on the data is described.

2.1 Dimence-Study

This study by Schaap-Jonker (2012) focused on the relationship between the different dimensions of religion and/or life principles and the symptoms, progress and outcome of treatment in people with anxiety- and/or mood disorders. Furthermore the study used a longitudinal study design with three moments of measure, whereby three months and six months after the initial moment of measure the participants were again invited to fill out all questionnaires. The study aimed to investigate whether religiousness and life principles of patients changed during their treatment and more precisely which dimensions of religiousness and life principles were effected.

Besides the religion-questionnaire, which is explained in greater detail in the section 2.3 Materials and Measures, they also used seven other questionnaires, of which only the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) was relevant for the present study.

On behalf of the Dimence-Study, the present study gathered data from the general population. This enabled a comparison between people who scored high on depression and people who scored low on depression, which could shed light on differences in associations and relationships between the constructs. The emphasis of this study was different from the Dimence-Study. It was not intended to investigate the influence on clinical aspects and treatment results, but to assess the relationship between religious social support and depression. Furthermore the study design differed. A longitudinal study would go beyond the constraints of a bachelor thesis and it was therefore limited to a cross-sectional study design with only one baseline measurement moment.

2.2 Participants

The data collected from the clinical sample was lent from the Dimence-study by Schaap-Jonker (2012). The clinical sample consisted of patients which were treated in the ambulatory care within the programs for anxiety- or mood disorders. They presented a primary anxiety- or mood disorder on AS I and therefore satisfied the criteria of the DSM-IV. The diagnosis was based on clinical diagnostic testing during the intake, including among others the MINI (Mini International Neuropsychiatric Interview), and taking part in Routine Outcome Monitoring (ROM). The participants were invited to participate in the study by means of ROM, which is an online monitoring system that periodically asks participants to

fill out standardized or custom questionnaires. It is used in the Netherlands in the Mental Health Service and aims to improve quality of care by giving the patient the possibility to give feedback, scheduling interventions when responses indicate an alarming development and comparing results and therefore present a process of the treatment effect (Vital Health Software, nd.). The clinical sample contained a total number of 337 participants. However, due to the focus on depression and religiosity in this study, only the data of 112 participants was used. Thus, people who did not indicate a religious affiliation in the religion-questionnaire were excluded, because it was intended to measure religious social support as opposed to overall social support. Additionally only the data form the first measurement (baseline) was used from the clinical sample.

In the course of this study 150 participants were recruited for the control group of which 92 were selected for this study because of the focus on religious social support. These were sampled by means of convenience sampling, meaning that the researchers included subjects, which were easily accessible, for example students, university staff, friends, family and acquaintances of friends. These were invited to join the study by means of a personal encounter or mail. After all, the data from 204 participants was used in this study, out of a combination of suited participants in the clinical and control group. Subsequently, the sample of 204 participants was divided into two groups: people scoring high on depression and people scoring low on depression. By doing so the representativeness of the groups was increased, because people who scored high on depression in the control group were filtered out and assigned to the high depression group. The reverse did apply for the clinical group, where it was possible to detect people who scored low on depression and these were in turn assigned to the low depression group. The specific demographics are listed in the result section.

2.2.1 Inclusion Criteria

For the clinical group it was necessary that participants were able to state their needs and opinions clearly and presented an anxiety- or mood disorder on AS I, according to the DSM-IV classification.

For the control group, only people who were able to speak or understand the Dutch language were invited to join the study, based on the fact that the religion-questionnaire is only available in Dutch. In addition, the gender of the participants were both, male or female because this enables to control the associations for gender influences. To accomplish a broad age range it was intended to invite equal numbers of participants for the ages of 19-30, 31-40 and lastly 41 to 65.

2.2.2 Exclusion Criteria

For the clinical group clients were excluded which were not able to state their needs and opinions clearly, had addiction problems and presented a psychotic disorders or disorders in the autism spectrum. Additionally, a primary diagnosis of physical problems or personality problems, was used as an exclusion criterion.

For the control group, the only reason for exclusion was the inability to speak or understand the Dutch language.

2.3 Materials and Measures

For the selection of participants for the clinical sample the MINI was used. Furthermore, as an attempt to gain more information about the relationship between the dimensions of religious social support and depression, two different instruments were used: the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) and the religion-questionnaire, developed by Schaap-Jonker (2012).

2.3.1 Mini International Neuropsychiatric Interview (MINI)

The Mini International Neuropsychiatric Interview (MINI; Lecrubier et al., 1997) is a diagnostic structured interview which is used to explore 17 disorders, which are considered the most important on AS I, according to the criteria listed in the DSM-III-R. Because of its fully structured nature, it is possible to be conducted by lay person and it usually takes around 21 minutes to complete. In the beginning of each disorder section there are one or two screening questions, which rule out the disorder when answered negatively (Lecrubier et al., 1997). The inter-rater reliability was found to be very high, ranging from 0.88 to 1.0 (Lecrubier et al., 1997). The test-retest reliability was only available for depression, anxiety disorder, panic and/or agoraphobia, dependence (alcohol and/or drugs) and psychotic disorders, because of otherwise to small sample sizes. The Cohen's kappa coefficients ranged between 0.76 (panic disorder and/or agoraphobia) and 0.93 (dependence) and therefore are acceptable. The interview can also be considered valid, because its sensitivity ranges from 0.87 to 0.94 indicating that the interview mostly accurately identifies actual positives. The specificity ranges from 0.89 to 0.95 indicating that the interview is most of the time able to identify negatives correctly.

2.3.2 Brief Symptom Inventory (BSI)

The Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) is a self-report questionnaire which measures psychological symptoms. By using the BSI, it is possible to differentiate people with specific psychological problems and distinguish psychological patients from not-patients based on their score. The questionnaire consists of 53 items and uses a 5-point Likert scale on which the respondents indicate the degree to which they experienced different psychological symptoms in the past week, ranging from 0 (not at all) to 4 (a lot). The BSI encompasses nine subscales: Somatization (SOM), Cognitive symptoms (COG), Interpersonal Sensitivity (INT), Depression (DEP), Anxiety (ANG), Hostility (HOS), Phobic Anxiety (FOB) Paranoid Ideation (PAR) and Psychoticism (PSY). Besides these nine subscales there are three additional scales to assess the severity of the psychopathology: the average score over all 53 items (TOT), the amount of items where respondents indicate to have at least somewhat complaints (AAT) and the severity of the present symptoms (EAS: total score divided by the amount of present symptoms). The average scores on the nine subscales range mostly from 0 to 4, where the higher a score is the more it indicates a complaint. If a person's average scores is especially high on

one of the nine subscales it indicates that that person suffers mostly of symptoms associated with that particular disorder. The scores on the three additional subscales are mostly interesting when their underlying relationship is considered. If someone scores low on AAS but high on EAS it indicates that the few symptoms that are present are causing great suffering (Derogatis & Melisaratos, 1983). The BSI manual offers norms for each of the subscales, including the three additional ones, for two different groups: clinical sample and general population (Derogatis & Melisaratos, 1983). The norms relevant for this study are the ones for clinical patients (N=245) and the ones for the general population (N=200) (Derogatis & Melisaratos, 1983). According to those values, scores higher than 0.79 indicate a significant amount of depressive symptoms.

The internal consistency reliability (Cronbach's Alpha) was found to be ranging between α = 0.71 (PSY) to α = 0.85 (DEP) (Derogatis & Melisaratos, 1983), indicating acceptable to high reliability values (Kline, 2000). Regarding test-retest reliability the BSI was found to be stable and reliable to measure psychological symptomology over time (Derogatis & Melisaratos, 1983). The test is also considered sufficiently valid (Derogatis & Melisaratos, 1983) and is distinguished and frequently used in the assessment of psychopathology.

The score on each subscale is determined by calculating the average score on the items belonging in the corresponding subscales.

2.3.3 Religion-Questionnaire

For the purpose of the Dimence - study, a religion-questionnaire that was partly based on the operationalization of Glock and Stark (1968) and built up on the Vragenlijst Godsbeeld (VGB) (Schaap-Jonker & Eurelings-Bontekoe, 2009), was constructed. Due to the fact that the Vragenlijst Godsbeeld (VGB) (Schaap-Jonker & Eurelings-Bontekoe, 2009), only covered the variables: religious/ world view belief and religious/ world view experience, additions were necessary to measure the whole concept of religion. After many modifications to the questionnaire, the most recent version of 2012 by Schaap-Jonker, was used in this study. Religion was measured by means of five variables: 1) religious/world view belief, 2) religious/ world view experience, 3) religious practice, 4) consequences of religion/world view and 5) religious salient. Additionally it was chosen to add the background variable religious commitment to assess, whether the participant is part of a specific religious or world view movement, thus replacing the intellectual dimension with their dimension: religious salient, which refers to the importance of religion in ones live.

The religion-questionnaire was used in the present study, to investigate the degree of religiosity and associated dimensions thereof. The questionnaire consisted of 18 items and used a 5-point Likert scale on which the respondents indicated the degree to which the listed statements were applicable to their opinion, ranging from 1 (not at all applicable) to 5 (completely applicable).

There were no available estimates regarding the reliability or validity of the religion questionnaire. However, it was possible to find estimates for the part of the questionnaire which was

adopted from the Vragenlijst Godsbeeld (VGB) (Schaap-Jonker & Eurelings-Bontekoe, 2009). There the reliability estimate Cronbach's Alpha ranged between $\alpha = 0.71$ to $\alpha = 0.93$, indicating a moderate to strong internal consistency (Schaap-Jonker & Eurelings-Bontekoe, 2009). Additionally, the Cronbach's Alpha coefficient for the religion questionnaire in this study was $\alpha = 0.97$, indicating a strong internal consistency.

Due to the fact that the focus of this study lied on religious social support, the classification of Schaap-Jonker (2012) could not be followed completely. In order to investigate the first sub concept religious social interactions it was necessary to compare the content of this variable with the contents of the dimensions provided by the religion-questionnaire. It became apparent that the dimension named religious practice came very close to the understanding of religious social interactions, because both concepts concerned themselves with behavioural expressions. Therefore it was possible to adopt this concept in its entirety.

On the other hand the perceived emotional support concept needed to be constructed specifically for this study by selecting single items from the religion-questionnaire, which fit into the description that perceived emotional support is the: "comfort of knowing that one has support available from one's religious setting" (Hovey et al., 2014).

The scores on the according items were added to form a total score for the two concepts. Thus, a higher total score for the religious social interaction concept indicated a higher level of participation in religious meetings and personal practices, such as prayer or mediation. A higher total score for the perceived emotional support concept indicated that a great amount of support was provided by other believers or (religious) guardians. The total score could range from 2, which represents the lowest score to 10, which indicates the highest total score possible.

Measuring Religious Social Interaction

In this concept two items were selected to access the degree to which people engaged in behavioural expressions of their belief. Those two items were as follows:

- How often does the respondent participate in religious meetings, as for example in churches or mosques or other meetings regarding his/her life principles?
- How often does the participant engage in prayer or meditation?

Measuring Perceived Emotional Support

In this concept two items were possible to select which would fit into the description provided by Hovey et al. (2014). Those two items were as follows:

- My belief or life principle helps me, because I can visit a pastor/imam/counsellor.
- My belief or life principle helps me, because other believers support me.

2.4 Procedure

The procedure regarding the clinical sample was as follows: the participants were asked to participate by means of ROM. After a list of complaints was gathered participants were given information about the study, containing the goal, method and ethical considerations, similar to the information-letter given to the control group. Then they were asked if they are willing to participate and whether the list of complaints is allowed to be used in the study. If participants agreed to participate, the religion questionnaire was conducted online. After three months participants were again asked by means of ROM to participate for follow-up measurements.

The present study, which focused on gathering data from a control group, was conducted as follows: all parts of the study were conducted successively at the same day. First, the information-letter was handed over, so that the participants could gain a full understanding of the study (see Appendix 2). There the aim of the study and its relevance was explained and that the participant would be part of a control group. Furthermore it was explained what is asked of the participant and who to contact with questions. Additionally, they were informed of the possibility to participate at two other moments, three and six months later. If all three measurements were completed they could get reward money (10 Euro). In the next step, they were told how much time it was going to take and which tasks they had to fulfil, namely completing the three questionnaires. Participants were informed that all gathered data is treated confidentially and anonymously, that this research should not cause any harm or stress and that they were allowed to stop the research at any given time. Each participant had to sign an informed consent form. Finally, participants were requested to complete the three questionnaires in their own preferred order. The completion of the questionnaires was mostly done either at the home of the respondents and then returned to the researcher or at the place where respondents were recruited, which could range from a coffeehouse to a university building.

2.5 Analysis

For the investigation of the research questions, only a part of the complete sample was used in this study, because of the focus on religious social support and depression. Thus people who did not mention a religious affiliation and were not diagnosed with a depressive disorder, in the clinical sample, were excluded in the analysis.

As the first step of the data analysis, the baseline characteristics of all respondents relevant for this study were examined. For that purpose the combined sample of 204 participants was separated in people who scored low and people who scored high on depression. The separation of the sample was based on the norms for the BSI depression subscale, provided by Derogatis and Melisaratos (1983). There a cut off value of 0.79 is recommended. This was necessary to include participants from the control group who showed more depressive symptoms and respectively exclude participants from the clinical group who reported low amounts of depressive symptoms. Overall the two resulting samples

did not differ highly in sample size from the sample size, which would result from the classification in clinical and control group (using cut off: 125 and 79; using clinical and control: 130 and 74).

Due to the fact that the religious social support dimensions were partly constructed especially for this study, it was also favourable to perform a confirmatory factor analysis on the items belonging to the two dimensions. This approach enabled the examination of the relationship between the items and could shed light on whether the items show an underlying connection, thereby justifying their placement in those dimensions.

Furthermore the reliability of the two subscales for religious social interaction and perceived emotional support, were investigated by means of the reliability estimate Cronbach's alpha. The Cronbach's alpha coefficient for the subscales religious social interaction and perceived emotional support were respectively $\alpha = 0.74$ and $\alpha = 0.76$, indicating a moderate to high reliability.

In order to choose the right rest, it was necessary to perform a normality analysis for the sample regarding the distribution of answers on the BSI depression subscale, the religious social interaction subscale and the perceived emotional support subscale. The decision was based on the evaluation of the skewness, which describes the asymmetry of the distribution. A value of zero indicated a perfect normal and symmetrical distribution (Kim, 2013). Positive values indicated that more values lied on the right side of the distribution creating a bulk and therefore asymmetry. Negative values indicated the same for the left side of the distribution. For the rejection or acceptance of a normal distribution the absolute z-value was calculated by hand, according to the formula provided by Kim (2013) and compared to the value of +/- 3.29, which was recommended for samples bigger than 50 and lower than 300. If the absolute z-value was above 3.29 or under -3.29 the distribution could be regarded normal. Table 1 shows the results of the normality analysis of the BSI depression subscale, the religious social interaction subscale and the perceived emotional support subscale.

Table 1: *Normality Analysis*

	Total (N=204)			Low Depression (N=79)			High Depression (N=125)		
	Skew Value	SE	Z	Skew Value	SE	Z	Skew Value	SE	Z
BSI Depression	0.35	0.17	2.06	0.66	0.27	2.44	0.01	0.22	0.05
Religious Social Interaction	-0.95	0.17	-0.59	-0.81	0.27	-3	-1.06	0.22	**-4.82**
Perceived Emotional Support	1.19	0.17	**7**	1.09	0.27	**4.04**	1.25	0.22	**5.68**

Note. SE= Standard Error Mean, Z= z-value of skewness, N= sample size, z-values of skewness > 3.29 are in boldface, z-values of skewness < -3.29 are in boldface

The depression score on the BSI was according to the normality analysis normally distributed. There the z-value for skewness was in every group below 3.29, which was the threshold according to Kim (2013). This meant that in both groups, 68% of the answers of the participants on the BSI depression subscale fell within one standard deviation around the mean and 95% fell within two standard deviations around the mean. Perceived Emotional Support on the other hand was not normally distributed. In the group with high depression scores on the BSI it was also not possible to detect a normal distribution. Therefore non-parametric tests were chosen for the analysis of the research questions.

In order to investigate the first two research questions: 1. Is religious social interaction associated with depressive symptoms? and 2. Is perceived emotional support associated with depressive symptoms?; the next step of the data analysis was to calculate the correlation for each of the two concepts with the BSI-score. Due to the lack of a normal distribution the non-parametric Spearman's rho coefficient r_s was calculated. Spearman's rho was not only recommended for not normally distributed samples (Field, 2009), it was also advised when investigating two-item-scales, as it was the case in this study (Eisinga, Grotenhuis, & Pelzer, 2013). By doing so, it was possible to detect whether there was an association between the two variables and whether this association reached the significance level. For the assessment of the strength of the associations the categorization provided by Dancey and Reidy (2011) was followed. A coefficients of -1 was considered a perfect negative relationship and one of +1 a perfect positive relationship. Coefficients ranging from -0.9 to -0.7 were categorized as strong negative relationships. The same followed respectively for the positive values. Coefficients ranging from -0.6 to -0.4 were considered moderate negative relationships and the ones ranging from -0.3 to -0.1 weak. The coefficient zero indicated that there is no relationship between the two variables.

The third research question was investigated next 3. Do people, who score high on depression, score lower/higher on the concepts: perceived emotional support and religious social interaction, than people who score low on depression? Because normality was not the case, the nonparametric test for two independent samples, the Mann-Whitney-U-test, was applied.

Finally, it was chosen to perform an additional analysis, if the confirmatory factor analysis did not reveal the two predicted factors. Therefore an exploratory factor analysis was performed to examine whether the concept religious social support could be found as one factor of the whole scale. Then the same analysis was performed for the total score on all four items, which respectively would be the operationalization for the comprehensive concept of religious social support. In addition all four items were separately investigated using the Mann-Whitney U-test. Thereby it was possible to investigate differences between the two groups which would be overlooked, when only using total scores.

3. Results

3.1 Demographics

Because of the focus on religious social support and depression, participants had to be excluded from the overall sample. Consequently only 204 of an overall sample of 487 participants were suited for the analysis. In the overall sample were 337 participants from the clinical group of which the answers of 130 were used in this study. Additionally the overall control group was made up of 150 participants, of which 74 were suited for this study.

Of these 204 participants, 79 were categorized as scoring low on depression and the remaining 125 participants were categorized as scoring high on depression, according to the cut off value. There were 86 male and 120 female participants. Furthermore the average age was 38 years, ranging from 17 to 80 years (SD = 13.5). The following table 2 presents the baseline characteristics of each group.

Table 2*: Summary of Baseline Characteristics*

	Low Depression (N=79)		High Depression (N=125)		p
	Frequency (%)	M (SD)	Frequency (%)	M (SD)	
Age		38.3 (15.7)		38.3 (12.1)	
Gender					
male	29 (36.7)		55 (44)		
female	50 (63.3)		70 (56)		
Religious Affiliation					
Christian	14 (17.7)		13 (10.4)		
Roman Catholic	31 (39.2)		33 (26.4)		
Protestant Church	7 (8.9)		24 (19.2)		
Reformed Church	7 (8.9)		20 (16)		
Evangelic, Baptist, Pentecostal	9 (11.4)		8 (6.4)		
Islam	4 (5.1)		8 (6.4)		
Other	7 (8.9)		19 (15.2)		
Education					
Lower Education Level	7 (8.9)		14 (11.2)		
Middle Educational Level	14 (17.7)		13 (10.4)		
High Education Level	54 (68.4)		14 (11.2)		
Missing	4 (5.1)		72 (57.6)		
Form Diagnosis					
Single Episode Depression			50 (40)		
Recurrent Depression			39 (31.2)		
Dysthymic			12 (9.6)		

Severity Diagnosis				
Mild		10 (8)		
Moderate		53 (42.4)		
Major		8 (6.4)		
Not Specified		12 (9.6)		
BSI Depression[1]	0.2 (0.2)		2.4 (1)	**0.00**
Religious Social Interaction[2]	6.1 (3)		6.9 (2.7)	**0.01**
Perceived Emotional Support[3]	3.7 (1.9)		3.6 (2.2)	0.15

Note. M = mean, SD = standard deviation, p = probability value (2-tailed), p-value < 0.05 are in boldface (significant), [1] range low: 0-0.7; high: 0.8-4, [2] range low: 0-9; high: 0-9, [3] range low: 2-10; high: 2-10

3.2 Analysis of the Structure of the Concept Religious Social Support

In order to investigate, whether the four selected items do indeed measure the two specifically constructed concepts of religious social support: religious social interaction and perceived emotional support, a confirmatory factor analysis was conducted. An initial analysis was run to obtain eigenvalues for each component of the data. Only one component had an eigenvalue above 1 and in combination explained 62.65% of the variance (see table 3, in boldface). Given these results, only one factor was detectable instead of the two predicted.

Table 3*: Total Variance Explained*

	Total Eigenvalues	% of Variance	Cummulatieve %
1	**2.51**	62.65	**62.65**
2	0.79	19.63	82.27
3	0.41	10.16	92.43
4	0.30	7.57	100.00

Note. % = percentage, Eigenvalue > 1 are in boldface

Table 4: *Factor Loadings for Confirmatory Factor Analysis with Varimax Rotation of Religious Social Interaction and Perceived Emotional Support*

Scale	Items	Factor 1
Religious Social Interaction		
	Frequency religious meetings	-0.69
	Frequency meditation or prayer	-0.66
Perceived Emotional Support		
	Support other believers	0.86
	Support pastor/imam/counsellor	0.63

All four items, which were chosen for the operationalisation of the concept religious social support, loaded high on the one factor. However the two of the four items, which were selected for the religious social interaction scale, showed a negative loading value as opposed to the other two, which were selected for the perceived emotional support scale, presenting positive ones. Based on the confirmatory factor analysis the four items did not seem to divide themselves into the two predicted concepts but rather pointed into different directions, because only one factor was found.

3.3 Analysis of the Relationship between Concepts and Comparison between High and Low Depression Groups

3.3.1 Association between Religious Social Interaction, Perceived Emotional Support and Depressive Symptoms

For the investigation of the first and second research question: 1. Is religious social interaction associated with depressive symptoms? and 2. Is perceived emotional support associated with depressive symptoms? it was necessary to calculate Spearman's rho r_s. This was done for the two constructed variables religious social interaction and perceived emotional support in combination with the average score on the BSI depression subscale. Table 5 lists the Spearman's rho values and probability values for both groups.

Table 5: *Summary of Intercorrelations for Scores on the BSI Depression Subscale, Religious Social Interaction Subscale and Perceived Emotional Support Subscale*

	Low Depression (N = 79)		High Depression (N=125)	
	r_s	p	r_s	p
Religious Social Interaction	0.10	0.20	0.08	0.18
Perceived Emotional Support	0.02	0.42	0.06	0.25

Note. r_s = Spearman's rho, p = probability value (1-tailed), N= sample size

In the first research question the association between the degrees of depressive complains, measured by the BSI, and religious social interaction is examined. According to table 5 Spearman's rho is $r_s = 0.10$ for the low depression group and $r_s = 0.08$ for the high depression group. Thus, the Spearman's rho value in the low depression group presented a very weak correlation, whereas the value in the high depression group was close to zero and therefor indicated no significant relationship. Also, these values could not reach the significance level, because they both were greater than the threshold for significance $p = 0.05$ (low depression: $p = 0.20$, high depression: $p = 0.18$). The lack of a significant result suggested that the very weak correlation in the low depression group most likely arose by chance. Consequently, this indicates that no relationship was found between the level of religious social interaction and depressive symptoms in both groups.

In the second research question the association between the degrees of depressive complains, measured by the BSI, and perceived emotional support is examined. According to table 5 Spearman's

rho is $r_s = 0.02$ for the low depression group and $r_s = 0.06$ for the high depression group. Following the categorization by Dancey and Reidy (2011) this value represents no significant relationship due to its proximity to zero and a p-value greater than 0.05 (low depression: p = 0.42; high depression: p = 0.25).

3.3.2 Comparison of People Scoring High on Depression and People Scoring Low on Depression

The third research question was, whether people, who score high on depression, score lower/higher on the concepts perceived emotional support and religious social interaction, than people who score low on depression. The Mann-Whitney U-test was performed, due to the not normally distributed samples. The results are listed below, in table 6.

Table 6*: Summary of the Median Comparison on Religious Social Interaction and Perceived Emotional Support between People Scoring Low on Depression and People Soring High on Depression*

	Mdn	U	z	p	r
Religious Social Interaction (N=204)		3912	-2.59	**0.01**	-0.2
Low Depression (N=79)	7				
High Depression (N=125)	8				
Perceived Emotional Support (N=204)		4391	-1.43	0.15	-0.1
Low Depression (N=79)	3				
High Depression (N=125)	2				

Note. Mdn = median, U = Mann-Whitney U value, z = z-score, p = probability value (2- tailed), r = effect size, N = sample size, p-value < 0.05 are in boldface (significant)

People who scored low on depression reported significantly less religious social interaction (Mdn = 7) than people who scored high on depression (Mdn = 8), U = 3912, z = -2.59, p = 0.01, r = -0.18. The effect size r was calculated by hand, by dividing the z-score with the square root of the sample size (Field, 2009). Still, the effect size only represented a small effect, meaning that the difference in religious social interaction only explained one percent of the total variance regarding depressive symptoms.

Perceived emotional support in people who scored low on depression (Mdn = 3) did not differ significantly from people who scored high on depression (Mdn = 2), U = 4391, z = -1.43, ns, r = -0.1. Although a significant level could not be reached, the effect size indicated that perceived emotional support had a small effect on depressive symptoms.

3.4 Additional Analysis

The confirmatory factor analysis did not support the assumption of a multidimensional approach to the concept religious social support. Due to these results the same analysis, as for the two constructed

concepts, was also performed with one total score on all four items. This total score was used as an operationalization for the comprehensive concept of religious social support. Additionally it was chosen to perform the Mann-Whitney U-test for all four separate items, for the investigation of possible differences in groups which would be overlooked when calculating total scores.

3.4.1 Association between Religious Social Support and Depressive Symptoms

For the investigation of the relationship between religious social support and depressive symptoms Spearman's rho was calculated, using the total score on the religious social support scale and the average score on the BSI depression subscale. Table 7 lists the values of Spearman's rho and the corresponding probability values for people who score low and people who score low on depression.

Table 7: *Summary of Intercorrelations for Scores on the BSI Depression Subscale and the Total Score on Religious Social Support*

	Low Depression (N = 79)		High Depression (N=125)	
	r_s	p	r_s	p
Religious Social Support	0.13	0.13	0.12	0.09

Note. r_s = Spearman's rho, p = probability value (1-tailed), N= sample size

According to table 7 Spearman's rho was $r_s = 0.13$ for the low depression group and $r_s = 0.12$ for the high depression group. These values can be categorized as presenting a weak relationship between religious social support and depressive symptoms in both groups. However, both did not reach a significant level (p = 0.13, p = 0.09).

3.4.2 Comparison of Both Groups Regarding Religious Social Support

For the investigation of the difference in religious social support levels in people who scored low on depression and people who scored high on depression, the Mann-Whitney U-test was performed. The results are listed in table 8.

Table 8*: Summary of the Median Comparison on Religious Social Support between People Scoring Low on Depression and People Soring High on Depression*

	Mdn	U	z	p	r
Religious Social Support (N=204)		4168	-1.93	0.053	-0.1
Low Depression (N=79)	10				
High Depression (N=125)	11				

Note. Mdn = median, U = Mann-Whitney U, z = z-score, p = probability value (2-tailed), r = effect size, N = sample size

Religious social support in people who scored low on depression (Mdn = 10) did not differ significantly from people who scored high on depression (Mdn = 11), U = 4168, z = -1.93, ns, r = -0.1. Therefore it could also be argued that a significant level was reached, when rounding on hundredths.

Additionally the effect size indicated a small effect of religious social support on depressive symptoms, explaining one percent of the variance.

It was not possible to detect the two predicted concepts in the confirmatory factor analysis and the data analysis based on the assumption that there are two concepts did not yield many significant results, as well as the data analysis with all four items together as an operationalization of the overarching concept of religious social support. Additionally, it was chosen to perform an explanatory factor analysis on the whole religion questionnaire to investigate whether it is possible to detect a factor containing the selected items. However as it is shown in Appendix 1, a total of ten factors were suggested in which none could present a pattern that would suggest a separate factor for religious social support. Based on this, it was chosen to investigate further on item level, in order to explore correlations which could be overlooked when only using total scores.

3.4.3 Comparison of Both Groups Regarding Four Separate Items

For the investigation of the differences in groups regarding the scores on the four separate items, which were selected to operationalize the concept religious social support, the Mann-Whitney U-test was performed. The first two items listed in table 9 were used to operationalize the construct religious social interaction and the last two items were assigned to the concept perceived emotional support. The results of the Mann-Whitney U-Test are presented below (see table 9).

Table 9*: Results for the Mann-Whitney U-Test*

	Mdn	U	z	p	r
Religious Social Interaction					
Frequency of Visits to Religious Meetings		3469.5	-4.05	**0.00**	-0.28
Low Depression (N=79)	3				
High Depression (N=125)	4				
Frequency of Meditation or Prayer		4438.5	-1.29	0.2	-0.09
Low Depression (N=79)	4				
High Depression (N=125)	5				
Perceived Emotional Support					
Support of Other Believers		4021.5	-2.44	**0.02**	-0.17
Low Depression (N=79)	2				
High Depression (N=125)	1				
Support from Pastor/Imam/Counsellor		4799	-0.41	0.68	-0.03
Low Depression (N=79)	1				
High Depression (N=125)	1				

Note. Mdn = median, U = Mann-Whitney U, z = z-score, p = probability value (2-tailed), r = effect size, N = sample size, p-value < 0.05 are in boldface (significant)

Two items were able to reach a significant level and therefore indicated a difference in scores on these items between people who score low on depression and people who score high on depression. The first item was concerning the frequency of visits to religious meetings. People who scored low on depression (Mdn = 3) significantly scored lower on this items than people who scored high on depression (Mdn = 4), $U = 3469.5$, $z = -4.05$, $p < 0.001$, $r = -0.28$. The effect size r was calculated by hand, by dividing the z-score with the square root of the sample size (Field, 2009). Additionally, according to Filed (2009) $r = -0.28$ would indicate a small to medium effect of the frequency of visits on depressive symptoms, explaining almost nine percent of the variance.

The second item was regarding the support of other believers. People who scored low on depression (Mdn = 2) scored significantly higher on this item than people who scored high on depression (Mdn = 1), $U = 4021.5$, $z = -2.44$, $p < 0.05$, $r = -0.17$. Here the effect size $r = -0.17$ indicated a small effect (Field, 2009) of the support that is offered by other believers on depressive symptoms.

4. Discussion

4.1 Conclusion

This study concerned itself with the relationship between religious social support, its sub-concepts: religious social interaction and perceived emotional support, and depressive symptoms. In order to give an answer to the overarching question whether there is an association between religious social support and depressive symptoms, three hypotheses were tested. The first hypothesis stated that higher religious social interaction is associated with less depressive symptoms. Here, it was not possible to find a significant correlation between the concepts. Second it was hypothesised, that there is a negative association between perceived emotional support and depressive symptoms. The correlation analysis did not yield any significant results, indicating no relationship between these two concepts. In the third hypothesis it was predicted that people, who score high on depression, score lower on the concepts: perceived emotional support and religious social interaction, than people who score low on depression. This was based on the assumption made in the beginning, that contact to other believers and visits to religious or spiritual meetings promoted religious social support and therefore decreasing depressive symptoms. It was possible to detect a significant difference, indicating that people who scored low on depression also reported less religious social interactions, than people who scored high on depression. This result contradicts the prediction made in the hypothesis. When looking at the difference between the two groups regarding perceived emotional support, there was no significant result detectable.

By performing additional analysis on a single item level, using the four items chosen for the operationalization of religious social interaction and perceived emotional support, it was aimed to investigate whether there are underlying relationships between them and depressive symptoms in the two groups, which would be covert when using total scores. Indeed, people who scored low on depression also reported significantly more support from other believers, which would be consistent with the second hypothesis, where a negative association between perceived emotional support and

depressive symptoms was assumed. Additionally, people who scored high on depression reported significantly higher frequencies of visits of religious (spiritual) meetings than people who scored low on depression. This result on the other hand is not consistent with the first hypothesis, where a positive influence of frequent visits to religious (spiritual) meetings, and in turn religious social interaction on depressive symptoms was assumed.

The possible implications and explanations for the weak and partially contradictory results follow in the next section.

4.2 General Discussion

When looking at the results it becomes apparent, that most of them are not significant or weak at most. This is not very surprising, regarding the small differences between the two groups (high and low depression) on religious social interaction and perceived emotional support, which were listed in table 2, the baseline characteristics. This could be caused by many things.

4.2.1 Group Representativity

First, it is possible that the people assigned to the two different groups were not representative for their group. So it should be considered whether the low depression group, which consisted mostly of the control group, did not accurately represent the general population. This would be the case, if, for example, people who were in the control group reported higher depression levels and therefore would possibly more likely fit into the clinical group, but did not yet report their complaints to the Mental Health Service and therefore were not placed in the clinical group. It was intended to avoid this possibility by splitting the overall sample, using a cut off score and not using the separation in control and clinical group. In fact, there were 18 participants from the control group which were then assigned to the high depression group based on the cut off score. That way, it was possible to enhance the representativeness of the two groups considering depressive symptoms. Additionally, the study was focused on people who named a religious or spiritual affiliation, in order to focus on religious (spiritual) social support, thus decreasing the chances of an unrepresentative sample even further. However, the scores on the religious social support sub concepts did still not present significant differences between the two groups. This could indicate that the reason for no significant or weak results is not due to a poor group representativity.

4.2.2 Concept Social Support

The inaccuracy of the operationalisation becomes more likely, considering the results of the confirmatory factor analysis. There it was not possible to find two separate concepts within religious social support, but rather one concept, within which the items correlated oppositely. This suggests not only that religious social support could be a unidimensional concept rather than a multidimensional one, it also suggests that the frequency of visits and prayers decrease when the support felt by other believers and counsellors increases. However, the choice for a multidimensional approach was not made lightly. It is important to investigate which aspects of religious social support are especially helpful or harmful

when dealing with depression. This can in turn facilitate the implication of these findings in interventions. If, for example, it turns out, that especially the perceived emotional support is important, it is possible to implement this, without forcing people to join religious affiliations to support religious social support, but rather through connecting them with others of similar believes and in turn raising perceived emotional support. Furthermore, using multidimensional approaches are associated with better operationalisation and increase the chances to really measure what was intended to be measured (Slife & Reber, 2011). In this context, the use of a multidimensional approach is rather an advantage than a limitation, especially considering the uncertainty within the literature.

4.2.3 Concept Religion

The third explanation for the results could be a poor operationalisation of the concept religion. This seems understandable considering the inconsistency presented in previous research. In this paper two different operationalisations were presented for religion. Ultimately, it was chosen for the one proposed by Glock and Stark (1968). It was assumed that a comprehensive measurement of religion, which encompasses the behavioural, cognitive and affective aspects of being religious, would be more fitting when focusing on a particular sub concept of religiosity, namely religious social support. Yet, based on the results presented in this study, it is possible that especially for religious social support, the motivational approach to religion is more fitting, which was suggested by Allport & Ross (1967). Studies often combine these two approaches and are mostly succeeding in finding significant results when looking at intrinsically motivated people (Smith et al., 2003). Smith et al. (2003) state that intrinsic religious orientations, rather than religious attitudes and believes, are able to predict depressive symptoms. Thus indicating that in people, who believe and who are religious for its own sake, stronger negative correlations can be detected as opposed to behaviours or attitudes. This supports the suggestion that the motivational approach from Allport & Ross (1967) is more suitable for the investigation of religiosity and religious social support, when considering depression. The intrinsic motivation seems to have added value for people, which is not possible to assess if the operationalisation focuses on behavioural, cognitive and affective aspects. Consequently this implies that it is favourable to construct an operationalisation and in turn an instrumentalization based on Allport & Ross (1967) in order to capture this motivational aspect and investigate whether there are really such small correlations between religious social support and depression or whether the weak results were due to a poor operationalization.

4.2.4 Instruments

It is also possible that the operationalisations were accurate, but the used instruments failed to represent them. The instrument, used to measure religious social support, was not constructed especially for this purpose but adopted from Schaap-Jonker (2012) and adjusted to fit the purpose of this study. Consequently there were not many items (n = 4) that were possible to select, which leads to a global assessment off the construct, rather than a detailed one. Additionally, both scales only consisted of two

items and the use of such small scales comes with disadvantages (Eisinga et al., 2013). To inspect the used items specifically regarding their relationship with depressive symptoms and detect relationships which would be masked by using total scores, additional analysis were performed. There it was possible to detect significant differences indicating that people who score low on depression also perceive more support from other believers. This does support the assumption made in the first hypothesis. Also regarding the visits of religious (spiritual) meetings, significant findings were possible to detect. Those are discussed in the course of this section. This leads to the assumption that there are specific items, which do indicate differences between groups and, more importantly, a relationship with depressive symptoms

Overall, there naturally is also the possibility of no relationship between the two concepts. The literature available on that topic does not present consensus regarding their results. Yet, due to the majority of studies which are able to find significant associations (Bonelli et al., 2012; Hovey et al., 2014; Smith et al., 2003), it is more likely that mixed results are ascribable to poor operationalisation or failed representation in the used instruments. The present study could also be used to support this statement. For one, it was possible to show weak correlations and though the operationalization of the religion questionnaire may need adjustments, it is possible to attach a meaning to at least the three first factors of the exploratory factor analysis (see Appendix 1). On the first factor, mostly positive associations with God correlated with each other, such as gratitude and closeness to God. The second factor is mostly associated with negative descriptions regarding ones belief and God, such as shame, guilt and fear of punishment. Finally, the third factor seems to be consisting of items, which indicate the role of belief in providing guidelines and assistance in making decisions. Nonetheless, this does not present the intended distribution of Schaap-Jonker (2012). However, even with this operationalization weak results were detectable. It can be assumed that with a more appropriate measurement it could be possible to detect higher correlations. It is favourable that future research will focus on constructing and adjusting the existing questionnaire, by considering the suggestions made by Allport and Ross (1967), as well as Smit et al. (2003). By adding a motivational aspect into the questionnaire it could be possible to detect another factor that may be influential regarding depression.

4.2.5 Theoretical Discussion

In the third hypothesis it was expected to find lower scores on the concepts religious social interaction and perceived emotional support in people who score high on depression, as opposed to people who score low on depression. This was formulated based on the assumption that religious social interaction as well as perceived emotional support facilitate the decrease of depressive symptoms. This assumption is consistent with the *mediating model*, which proposes that there is a variable which mediates between religiosity and the improvement of mental health (Nelson, 2009). In the context of this study these mediating variables would be religious social interaction and perceived emotional

support. Accordingly, the contradictory finding regarding the lower scores on religious social interactions in people with low depression scores, as opposed to high depression scores, were surprising.

However, the mediating model is not the only one that is suggested regarding the influence of religiosity on mental health and therefore depression. According to Cohen and Wills (1985) religiosity functions as a *stress-buffer*. Therefore religiosity would increase with life stress and should therefore be higher in people who encounter traumas or other difficult life events. Consequently, religion would be more helpful in more stressful situations and would buffer the effects of trauma while not being as beneficial in everyday live trouble (Nelson, 2009). Depression often occurs first due to stressful or demanding life events (van der Does & Zitman, 2008). In this regard positive (promotion, marriage, birth) as well as negative (relationship or workplace problems) events can be a trigger. In this context it is understandable that people who suffer from depression attend religious (spiritual) meetings more often and therefore present higher scores, in order to deal with their problems.

The stress-buffering hypothesis (Cohen & Wills, 1985) as well as the mediating model (Nelson, 2009) does however presuppose a causal relationship between religiosity and depressive symptoms, which is not possible to support with the data from the present study. That is because the data was only collected at one baseline measurement moment. Therefore no assumptions can be made regarding the causality of the relationship and only an indication can be made, concerning the direction of the relationship at that moment. In this context, there is also the possibility that people perceive higher stress levels or feel more uncomfortable in religious meetings, which could increase depressive symptoms. If these meetings are mostly routinely and do not offer any comfort the increased social interaction could function as increased stress factor. For example, if people feel pressured to attend religious services regularly and do not feel acceptance in the community because of lack of a personalized atmosphere, they could also feel the pressure to display a specific image of themselves and not let anybody know of their suffering. In that case attending services does not have added value in their life, but only means more pressure to contain an intact image.

4.2.6 Practical Implications and Future Research

The results shown in this study, despite their weakness, offer important implications. Due to the limitations regarding operationalisation and the used instruments, it is important to investigate the concept of religious social support with a specifically constructed instrument in the future. In doing so, it would be favourable to stick to a multidimensional approach, due to the differences in direction that were detectable in the confirmatory factor analysis. Additionally, the used instrument only offered two-item subscales, which should be improved by adding more differentiating items. Also, one sub concept could not be measured at all, because of the restrictions of the used instrument. Therefore it would be favourable to construct an instrument that is intended to measure the different concepts within religious support to investigate whether there is indeed not more than one factor and whether the results can be amplified by using more fitting items. Overall, the basis on which the instrument was build could not

represent religious social support appropriately, which is why it is important to adjust the items and also add a motivational aspect. These adjustments, could lead to a better assessment of religious social support.

Moreover, the results could support the stress-buffering hypothesis (Cohen & Wills, 1985) and future research should consider conducting longitudinal studies with more than one baseline measurement moment, as it is for example the case in the Dimence-Study (Schaap-Jonker, 2012), to investigate this further. This is especially important when considering the other possible interpretation of the results. If it turns out that it is rather the influence of religious meetings that is increasing depressive symptoms, other implications apply.

In the case that religiosity does function as a buffer, religious social support could not only form a trans diagnostically aspect to intervene with depression and aid people on their way to better mental health, but it could also shed light on the places and institutions which need to be more in the centre when addressing people in need. If people who suffer from depression visit religious or spiritual meetings more often and feel more comfortable to seek help from a priest or spiritual counsellor, as it is suggested by Oppenheimer, Flannelly and Weaver (2004), it would be favourable to offer clergy and counsellors special trainings or the possibility of referring people to specialist. On the other hand it could also be possible to reach more people with specific interventions, by addressing people in such meetings.

In the case that religiosity is rather accompanied by a feeling of pressure and discomfort of attending religious and spiritual meetings, such as church visits, than a buffer, different implications arise. For one, the aspects that are responsible for these feelings and in turn increase depressive symptoms, need to be investigated. For example, it can be supposed that the way a religious service is held or the way the community of a particular church interacts offers no personalized attention and no unconditional atmosphere to share fears and doubts. In that context attending a service becomes more a burden than a helpful and valued part of one's life. Consequently, it should be possible to intervene, by for example training the clergy or counsellors to spot people who could suffer from depressive symptoms and give them more attention and if necessary refer them to specialists. It can be assumed that personalized attention and concern for the well-being of the participants of religious meetings could improve the overall social interaction and atmosphere in such meetings. The used questionnaire did not focus on the atmosphere and impressions that people had in such religious meetings and it would be interesting to explore this possibility further.

In summary, it can be concluded that there is no significant relationship between religious social support, its sub concepts religious social interaction and perceived emotional support, and depressive symptoms. Although on the concept-level it was not possible to detect a significant result, the results on item level did show significant differences between people who score low on depression and people who score high on depression, which partly support the assumptions made in the hypothesis. On item level it was possible to suggest that religious (spiritual) meetings are visited more often by people with higher depression levels than people with lower depression levels. Additionally people who perceive

more support from other believers have less depressive symptoms. This emphasises that religious activities and involvements appear to be related to depressive symptoms in one way or another. Especially considering that group representation in this study was good and the great sample size. However, it is still important to investigate this further in order to gain more definite results regarding the direction of this relationship and understand the underlying reasons behind these results, so that the right implications can be followed. The investigation of the relationship between religious social support and depressive symptoms is only in its early stages. The great potential and implications that it offers only highlights further investigations to promote mental health by reaching more people and, more importantly, those in need of it.

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Appendix

Appendix 1 – Exploratory Factor Analysis on the Religion Questionnaire

Table 10*: Total Variance Explained*

Factor	Total Eigenvalues	% of Variance	Cummulatieve %
1	24.638	39.739	39.739
2	8.545	13.782	53.521
3	3.229	5.207	58.728
4	2.614	4.215	62.944
5	2.221	3.583	66.526
6	1.691	2.728	69.255
7	1.640	2.645	71.900
8	1.415	2.282	74.182
9	1.259	2.030	76.212
10	1.131	1.824	78.036

Note. % = percentage

Table 11: *Factor Loadings for Exploratory Factor Analysis with Varimax Rotation of Religion Questionnaire*

Item	Factor									
	1	2	3	4	5	6	7	8	9	10
I regard myself religious	**0.82**	-0.04	0.12	0.21	-0.04	0.02	0.05	0.28	-0.01	0.12
Belief is important for me	**0.64**	-0.06	**0.60**	0.07	-0.01	-0.08	0.07	0.10	0.15	-0.02
Belief plays a role in my decisions	**0.49**	-0.09	**0.73**	0.12	-0.08	-0.04	-0.04	-0.02	0.16	-0.04
I could not live without my belief	**0.51**	-0.02	**0.53**	0.08	-0.31	0.02	0.06	0.00	0.13	-0.13
God gives me comfort	**0.85**	-0.07	0.15	0.05	0.11	0.09	0.02	0.12	0.15	-0.16
God exercises power	**0.45**	0.06	0.11	**0.71**	0.11	0.17	-0.17	0.12	-0.08	0.04
God punishes	**0.45**	0.21	0.12	**0.64**	0.22	0.01	-0.17	0.07	-0.20	0.05
God gives me strength	**0.87**	-0.02	0.14	0.13	-0.01	0.15	0.03	0.20	0.03	-0.11

God lets everything go its way	-0.16	0.17	0.28	-0.01	**0.66**	-0.23	0.10	-0.16	0.15	-0.10
God rules	**0.64**	-0.03	0.26	**0.58**	-0.06	-0.01	0.08	0.13	0.00	0.18
God guides me	**0.84**	-0.03	0.26	0.13	0.01	0.15	0.10	0.06	0.11	-0.17
God leaves people over to themselves	-0.05	-0.09	0.07	-0.08	**0.80**	-0.03	0.01	0.11	0.00	-0.01
God surprises me	**0.74**	0.00	0.11	0.17	0.07	0.23	-0.14	0.04	0.13	-0.17
God is mysterious	**0.50**	0.20	-0.11	0.27	**0.39**	0.33	0.06	0.08	0.10	-0.13
God inspires me	**0.87**	-0.05	0.10	0.04	0.12	0.09	-0.09	-0.05	0.21	-0.06
God is associated with the part of being I don't understand	0.24	0.03	0.02	**0.36**	**0.49**	0.22	-0.10	-0.17	-0.18	-0.13
Gratitude	**0.90**	0.02	0.13	0.07	-0.02	0.08	0.10	0.05	-0.07	0.11
Closeness	**0.92**	0.18	0.12	0.03	-0.06	-0.01	0.01	0.00	-0.07	-0.02
Trust	**0.93**	0.03	0.15	0.05	-0.02	0.07	0.06	-0.07	0.07	0.00
Fear of being left rejected	0.15	0.39	0.07	**0.70**	-0.13	0.11	0.22	0.08	0.09	-0.30
Respect	**0.79**	0.11	0.02	0.17	0.11	-0.05	-0.06	0.10	-0.22	0.19
Disappointment	0.09	**0.65**	0.21	0.24	0.10	0.39	-0.02	0.09	0.06	0.14
Safety	**0.91**	0.08	0.06	0.05	0.00	0.12	0.07	0.05	-0.11	0.08
Love	**0.92**	-0.06	0.11	0.09	0.01	0.01	0.08	0.04	0.10	0.06
Fear of not being good enough	0.16	**0.62**	0.09	**0.49**	-0.10	0.27	0.17	0.06	-0.13	-0.22
Connectedness	**0.85**	0.12	0.16	0.00	-0.03	0.01	0.04	-0.13	-0.12	0.09
Doubts	0.22	0.24	-0.22	0.18	-0.14	**0.55**	-0.03	0.14	-0.07	0.13
Anger	0.02	**0.74**	0.15	0.17	-0.19	**0.41**	-0.07	-0.01	-0.04	0.05
Uncertainty	0.12	**0.38**	0.16	0.15	-0.03	**0.67**	0.23	-0.09	0.08	-0.09
Guild	0.32	**0.37**	0.19	**0.61**	-0.19	0.09	0.20	0.02	0.19	0.03
Fear of being punished	0.03	**0.33**	-0.04	**0.63**	0.02	0.22	0.30	-0.06	-0.08	-0.03
Dissatisfaction	-0.02	**0.67**	0.01	0.17	-0.06	**0.50**	-0.18	0.02	0.07	0.13
Abandonment	0.05	**0.70**	0.05	0.16	0.16	**0.46**	-0.09	-0.01	-0.10	0.00
Hope	**0.84**	-0.02	0.10	0.16	0.15	0.17	0.03	0.00	-0.10	0.14
Bewilderment	**0.48**	0.32	0.07	0.25	0.21	-0.13	-0.08	**-0.51**	0.20	0.16
Reverence	**0.71**	0.13	0.15	**0.35**	-0.04	-0.09	-0.11	-0.30	0.01	0.16
Wonderment	**0.85**	0.10	0.09	0.15	0.16	0.10	-0.14	-0.16	0.04	0.00

My belief gives me guidelines	**0.50**	-0.01	**0.65**	0.14	0.06	0.02	0.16	-0.04	-0.19	0.10
My belief helps me to separate between good and evil	0.24	0.14	**0.67**	0.11	0.19	0.11	0.07	0.24	-0.16	0.04
I can forgive myself through my belief	**0.50**	-0.09	**0.55**	0.10	0.28	0.05	-0.06	0.04	0.29	0.03
I can forgive others through my belief	**0.54**	0.14	**0.67**	0.04	0.26	0.02	-0.11	-0.05	0.11	0.01
I think that everything that happens has a goal	**0.50**	0.16	0.12	0.16	0.09	0.07	-0.04	**0.66**	0.02	-0.07
I believe in an afterlife	**0.54**	0.07	0.12	0.29	-0.07	-0.09	0.03	**0.56**	0.13	0.16
I can visit a priest	0.24	0.16	0.03	0.16	0.05	0.03	**0.81**	0.02	-0.04	0.18
Other believers support me	**0.72**	0.17	0.15	0.00	-0.12	0.08	0.25	0.20	-0.18	0.13
I can see the meaning of things because of my belief	**0.63**	0.14	**0.50**	0.08	-0.04	0.20	0.14	0.09	-0.20	-0.04
I can cope with my problems through prayer	**0.72**	0.33	0.29	0.05	-0.03	-0.18	0.02	-0.07	-0.13	0.02
I am not alone because of my relationship with God	**0.75**	0.20	0.17	0.28	-0.23	-0.07	-0.02	0.13	-0.11	0.07
I can give meaning to my problems through my belief	**0.70**	0.28	**0.37**	0.13	0.03	0.01	0.00	-0.01	-0.19	-0.19
I can stick to rituals	**0.67**	0.28	0.21	0.17	-0.06	-0.06	0.21	0.02	-0.35	0.25
It gives me safety	**0.88**	0.10	0.06	0.12	-0.10	-0.03	0.13	0.12	-0.03	-0.05
Humbleness. easement and self-sacrifice are emphasised	0.15	**0.89**	-0.04	0.03	0.10	-0.07	-0.10	-0.04	-0.03	-0.07
Guild is emphasised	0.08	**0.92**	0.03	0.12	-0.01	-0.09	0.05	0.13	0.03	-0.07

Feelings of shame emphasised	0.08	**0.92**	-0.01	0.07	0.00	-0.05	0.03	-0.09	-0.04	0.03
Makes me afraid	0.01	**0.84**	-0.02	0.11	0.01	-0.01	0.10	-0.06	-0.07	0.08
I have a negative outlook on life and the future	0.06	**0.69**	-0.04	0.01	0.05	-0.03	**0.45**	-0.06	0.24	0.05
My autonomy is touched	0.01	**0.87**	0.05	-0.04	-0.02	0.13	0.11	0.10	0.12	0.09
I lost my belief	-0.14	**0.45**	0.01	-0.14	0.06	0.01	0.05	0.02	**0.60**	0.34
Are you raised religiously?	0.15	0.13	-0.05	-0.06	-0.13	0.06	0.17	-0.02	0.09	**0.64**
Frequency of visits to churches or other religious/life principle meetings	**-0.65**	0.12	-0.25	-0.33	0.19	0.08	-0.10	-0.09	-0.12	-0.28
Frequency of prayer	**-0.69**	-0.13	-0.41	-0.15	0.14	0.21	0.04	0.04	0.10	-0.08
Religious affiliation	0.12	0.26	**0.56**	-0.08	0.30	-0.11	-0.37	-0.09	-0.19	-0.14

Note. Factor loadings > 0.35 are in boldface

Appendix 2 – Information Letter for Control Group

Kenniscentrum Religie en Levensbeschouwing

in relatie tot Geestelijke Gezondheidszorg

DIMENCE GROEP

Onderzoek

Religie en levensovertuiging bij angst- en stemmingsklachten

Deze brief geeft informatie over een wetenschappelijk onderzoek naar religie en levensovertuiging in relatie tot angst- en stemmingsklachten. Wij vragen u vriendelijk om hieraan mee te doen.

Inleiding

Op dit moment wordt vanuit het *Kenniscentrum Religie en levensbeschouwing in relatie tot geestelijke gezondheidszorg.* dat onderdeel is van Dimence. onderzoek gedaan naar de relatie tussen angst- en stemmingsklachten enerzijds en religie en levensovertuiging anderzijds. De vraag is wat religie of levensovertuiging betekent voor mensen die te maken hebben met angst of depressie. juist in relatie tot hun klachten en/of behandelingsresultaat. Hierover is nog maar weinig bekend. Wanneer we hierover meer weten. kunnen professionals zoals hulpverleners en geestelijk verzorgers

er op de juiste manier mee omgaan. Voor een goede duiding van de resultaten is een controlegroep nodig van mensen uit de algemene bevolking die niet in behandeling zijn bij een hulpverlener en geen psychiatrische diagnose hebben. Dit laatste is de reden dat u benaderd wordt.

Wij vragen u vriendelijk om aan het onderzoek mee te doen. ongeacht of u zichzelf als gelovig beschouwt. Voor ons is het van belang om de mening en ervaring te horen van mensen die veel met geloof hebben én mensen die er maar weinig mee hebben – en iedereen daartussen.

Wat houdt het onderzoek in?

U vult een vragenlijst in met vragen over uw eigen persoon en stemming en over uw levensovertuiging. De meeste vragen zijn meerkeuzevragen. Voorbeelden van vragen zijn: 'Mijn geloof of levensovertuiging is belangrijk voor mij' 'Hoe vaak gaat u naar een kerkdienst. samenkomst in de moskee of andere levensbeschouwelijke bijeenkomst?'

Voor het invullen van de vragenlijst hebt u ongeveer een half uur nodig. U hoeft dit niet in één keer te doen. maar kunt het verdelen over meerdere momenten die uzelf goed uitkomen.

De vragenlijsten worden driemaal afgenomen: op dit moment. na drie maanden en na zes maanden.

Hoe doet u mee en waarom is dat belangrijk?

Bij deze brief vindt u een formulier waarop u kunt aangeven dat u wilt meedoen aan het onderzoek. Als u wilt deelnemen aan het onderzoek. kunt u dit formulier invullen en opsturen naar de onderzoeker. U bent benaderd door studenten van de Universiteit Twente. die een bijdrage leveren aan het onderzoek. Aan hen kunt u dit deelnameformulier ook meegeven. Na het invullen van het deelnameformulier ontvangt u de vragenlijst. Uiteraard hopen wij dat u wilt meewerken! In Nederland is relatief weinig onderzoek gedaan naar de relatie tussen geloof en psychisch functioneren. Door mee te doen levert u een bijdrage aan betere zorg. opleiding en onderzoek. Toekomstige cliënten kunnen hier baat bij hebben. Voor uzelf kan het als voordeel hebben dat u meer duidelijkheid krijgt over uw houding ten opzichte van uw levensovertuiging. In eerder onderzoek hebben mensen aangegeven dit op prijs te stellen. Er zijn geen nadelen bekend van deelname aan het onderzoek.

Wat u vooraf moet weten

Deelname aan dit onderzoek is vrijwillig. Uw gegevens worden anoniem verwerkt. Uw privacy is dus gewaarborgd. De resultaten van het onderzoek worden bekend gemaakt via de website van het *Kenniscentrum Religie en Levensbeschouwing.* http://religieggz.dimence.nl. Dit onderzoek is goedgekeurd door de METc VUmc. een medisch-ethische toetsingscommissie voor onderzoek in de gezondheidszorg.

Gegevens onderzoeker

De junior-onderzoeker van het *Kenniscentrum Religie en Levensbeschouwing.* Roanne Glas. is bereikbaar voor vragen over het onderzoek. Zij is te bereiken via r.glas@dimencegroep.nl (Wilt u telefonisch contact? Stuurt u dan een e-mail met uw telefoonnummer. dan wordt u teruggebeld).

Dank voor uw aandacht!

Met vriendelijke groet.

Prof. Dr. G. Glas

Hoofd *Kenniscentrum Religie en Levensbeschouwing in relatie tot Geestelijke Gezondheidszorg*

Dimence Groep. Postbus 473. 8000 AL Zwolle

Appendix 3 – Informed Consent

Toestemmingsformulier onderzoek

Religie en levensovertuiging bij angst- en stemmingsklachten

❒ Ja, ik doe mee met het onderzoek *Geloof en levensovertuiging bij angst- en stemmingsklachten*. Ik weet dat

- mijn deelname anoniem is en dat mijn gegevens vertrouwelijk behandeld zullen worden
- ik het recht heb om de onderzoeksgegevens in te zien
- ik mijn deelname aan het onderzoek op elk moment kan beëindigen

Naam: ……

Geboortedatum: ……..

Adres: ……

……

Datum: ……

Handtekening: ……

❒ Ja, ik wil de vergoeding van 10 euro ontvangen na afloop van dit onderzoek. De voorwaarde voor de vergoeding is dat er drie ingevulde lijsten geretourneerd worden. Eventuele adreswijzigingen kunt aan doorgeven via r.glas@dimencegroep.nl.

IBAN: ……..

Tnv.: ……..

Dit formulier kunt u meegeven aan één van de onderzoekers of opsturen naar:

Kenniscentrum Religie en Levensbeschouwing GGZ Dimence

t.a.v. Prof. Dr. G. Glas

Antwoordnummer 2224

8000 VB Zwolle

Appendix 4 – Religion Questionnaire Control Group

Onderzoek

Religie en levensovertuiging

bij angst- en stemmingsklachten

Fijn dat u meedoet aan dit onderzoek! Deze vragenlijst gaat over religie en levensovertuiging.

We willen u vragen om de lijst helemaal in te vullen. Voor ons is het belangrijk om de mening te horen van mensen die veel met geloof hebben én mensen die er maar weinig mee hebben – en iedereen daartussen.

Het is niet nodig om alle vragen in één keer te beantwoorden. U mag ook steeds een klein gedeelte van de lijst invullen, tot alle vragen beantwoord zijn.

In de envelop zitten nog twee lijsten. Eén gaat over wie u zelf bent, de ander over hoe u zich voelt. Wilt u ook deze twee lijsten helemaal invullen? Als u klaar bent, kunt u alles in de envelop doen en de envelop terugsturen naar de onderzoeker. Een postzegel is niet nodig.

We zouden het fijn vinden als u iemand uit uw omgeving wilt vragen om ook aan dit onderzoek mee te doen (‘sneeuwbaleffect’). Daarom vindt u een extra informatiebrief en deelnameformulier in deze envelop. Bij voorkeur heeft de andere deelnemer een leeftijdsverschil met u van +/- 20 jaar, maar dat is niet verplicht.

Bij vragen kunt u altijd contact opnemen met de onderzoekers Doke Lucassen (d.lucassen@dimence.nl) of Hanneke Schaap-Jonker (h.schaap@dimence.nl).

Op de volgende bladzijde wordt uitleg gegeven over het invullen van de vragenlijst.

(Als u toch niet kunt meedoen met het onderzoek, wilt u dan de niet-ingevulde vragenlijsten terugsturen?)

De meeste vragen in deze vragenlijst zijn meerkeuzevragen. Per regel kruist u één vakje aan. Hoe hoger het cijfer boven het vakje, des te beter past het antwoord bij u.

1 = HELEMAAL NIET van toepassing
2 = GROTENDEELS NIET van toepassing
3 = DEELS WEL/ DEELS NIET van toepassing

Dit is een voorbeeld:

	1	2	3	4	5
Ik ervaar dankbaarheid in relatie tot God .	❒	❒	❒	❒	❒

Als u dat niet zo ervaart, is deze uitspraak niet van toepassing op u. U kruist dan een 2 aan, of, als u echt helemaal nooit dankbaarheid ervaart naar God toe, een 1.

Bent u God wel dankbaar, dan klikt u een 4 aan, of een 5 als u heel veel dankbaarheid naar God toe ervaart. U gebruikt een 3 als de uitspraak voor een deel wel, maar voor een deel ook niet op u van toepassing is.

Bij alle vragen gaat het om wat u zelf vindt. Er zijn geen foute antwoorden!

Belangrijk: sla geen vragen over!

Hoe belangrijk is uw levensovertuiging of geloof voor u? Daarover gaan de eerste vragen.

1 = HELEMAAL NIET van toepassing
2 = GROTENDEELS NIET van toepassing
3 = DEELS WEL/ DEELS NIET van toepassing

	1	2	3	4	5
1. Ik zie mijzelf als gelovig.	❒	❒	❒	❒	❒

2. Mijn levensovertuiging of geloof is belangrijk voor mij. ❒ ❒ ❒ ❒ ❒
3. Als ik belangrijke beslissingen moet nemen, speelt mijn levensovertuiging of geloof een grote rol. ❒ ❒ ❒ ❒ ❒
4. Zonder mijn levensovertuiging of geloof zou ik niet kunnen leven. ❒ ❒ ❒ ❒ ❒

De volgende uitspraken gaan over God of het goddelijke. Geeft u aan in hoeverre deze uitspraken van toepassing zijn op wie God voor u is door <u>bij iedere uitspraak</u> één vakje aan te kruisen.

1 = HELEMAAL NIET van toepassing

2 = GROTENDEELS NIET van toepassing

3 = DEELS WEL/ DEELS NIET van toepassing

Als dat beter bij u past, mag u bij de volgende vragen in plaats van God ook 'het goddelijke', 'het hogere' of uw eigen woord voor God lezen.

5. God/ het goddelijike/ het hogere/ Allah…	1	2	3	4	5
geeft mij troost	❒	❒	❒	❒	❒
oefent macht uit	❒	❒	❒	❒	❒
bestraft	❒	❒	❒	❒	❒
geeft mij kracht	❒	❒	❒	❒	❒
laat alles op z'n beloop	❒	❒	❒	❒	❒
heerst	❒	❒	❒	❒	❒
leidt mij	❒	❒	❒	❒	❒
laat de mens aan zichzelf over	❒	❒	❒	❒	❒
verrast mij	❒	❒	❒	❒	❒
is raadselachtig	❒	❒	❒	❒	❒
inspireert mij	❒	❒	❒	❒	❒
heeft alles te maken met die kant van het bestaan die ik niet begrijp	❒	❒	❒	❒	❒

Als u aan God of het goddelijke denkt, hebt u misschien bepaalde gevoelens.

Hieronder vindt u enkele gevoelens die mensen bij God of het goddelijke kunnen hebben.

Zou u <u>bij ieder gevoel</u> willen noteren in hoeverre u dit gevoel ook hebt,

ook als u misschien zou willen dat uw gevoelens naar God toe anders waren.

Doet u dit door achter elk gevoel één kruisje te zetten.

Als dat beter bij u past, mag u bij de volgende vragen in plaats van God ook 'het goddelijke', 'het hogere' of uw eigen woord voor God lezen.

1 = HELEMAAL NIET van toepassing
2 = GROTENDEELS NIET van toepassing
3 = DEELS WEL/ DEELS NIET van toepassing

6. Als ik aan God denk, voel ik…

	1	2	3	4	5
dankbaarheid	❒	❒	❒	❒	❒
nabijheid	❒	❒	❒	❒	❒
vertrouwen	❒	❒	❒	❒	❒
angst om afgewezen te worden	❒	❒	❒	❒	❒
respect	❒	❒	❒	❒	❒
teleurstelling	❒	❒	❒	❒	❒
geborgenheid	❒	❒	❒	❒	❒
liefde	❒	❒	❒	❒	❒
angst om niet goed genoeg te zijn	❒	❒	❒	❒	❒
verbondenheid	❒	❒	❒	❒	❒
twijfel	❒	❒	❒	❒	❒
boosheid	❒	❒	❒	❒	❒
onzekerheid	❒	❒	❒	❒	❒
schuld	❒	❒	❒	❒	❒
angst om gestraft te worden	❒	❒	❒	❒	❒
ontevredenheid	❒	❒	❒	❒	❒
verlatenheid	❒	❒	❒	❒	❒
hoop	❒	❒	❒	❒	❒
verbijstering	❒	❒	❒	❒	❒
ontzag	❒	❒	❒	❒	❒
verwondering	❒	❒	❒	❒	❒

Geeft u aan in hoeverre de volgende uitspraken op u van toepassing zijn.

7. Mijn levensovertuiging of geloof…

	1	2	3	4	5
geeft mij richtlijnen hoe ik moet leven	❒	❒	❒	❒	❒
helpt me om goed en kwaad te onderscheiden	❒	❒	❒	❒	❒

8. Door mijn levensovertuiging of geloof

	1	2	3	4	5
kan ik mezelf de dingen die ik fout doe vergeven	❒	❒	❒	❒	❒
kan ik anderen vergeven	❒	❒	❒	❒	❒
Ik denk dat alles wat gebeurt een doel heeft	❒	❒	❒	❒	❒
Ik geloof in een leven na de dood	❒	❒	❒	❒	❒

1 = HELEMAAL NIET van toepassing

2 = GROTENDEELS NIET van toepassing

3 = DEELS WEL/ DEELS NIET van toepassing

9. Mijn levensovertuiging of geloof helpt mij, omdat

	1	2	3	4	5
ik een pastor kan bezoeken	❒	❒	❒	❒	❒
medegelovigen mij steunen	❒	❒	❒	❒	❒
ik daardoor de zin van dingen zie.	❒	❒	❒	❒	❒
ik door bidden en/of mediteren met mijn problemen kan	❒	❒	❒	❒	❒
ik niet alleen ben door mijn relatie met God	❒	❒	❒	❒	❒
ik daardoor betekenis kan geven aan mijn problemen	❒	❒	❒	❒	❒
ik me kan vasthouden aan rituelen (zoals bijvoorbeeld bidden)	❒	❒	❒	❒	❒
het me geborgenheid geeft	❒	❒	❒	❒	❒

10. Levensovertuiging of geloof is een negatieve factor in mijn leven, omdat…

	1	2	3	4	5
nederigheid, dienstbaarheid en zelfopoffering benadrukt	❒	❒	❒	❒	❒
schuld en schuldgevoelens benadrukt worden	❒	❒	❒	❒	❒
schaamte en gevoelens van schaamte benadrukt worden.	❒	❒	❒	❒	❒
het mij angstig maakt	❒	❒	❒	❒	❒
ik daardoor een negatieve kijk op het leven en op de toekomst heb	❒	❒	❒	❒	❒
mijn autonomie wordt aangetast.	❒	❒	❒	❒	❒
ik mijn geloof ben kwijtgeraakt	❒	❒	❒	❒	❒

11. Bent u godsdienstig opgevoed? ❒ ja ❒ nee

12. Naar de kerk, moskee of een levensbeschouwelijke bijeenkomst ga ik… (*1 vakje aankruisen)*
    - ❒ eens per week of vaker
    - ❒ twee tot drie keer per maand
    - ❒ maandelijks
    - ❒ enkele malen per jaar
    - ❒ eens per jaar of minder

13. Ik bid (of mediteer) … *(1 vakje aankruisen)*
    - ❒ meermalen per dag
    - ❒ dagelijks
    - ❒ enkele malen per week
    - ❒ eens per week
    - ❒ minder dan eens per week
    - ❒ nooit

14. Tot welke godsdienstige (kerkelijke) of levensbeschouwelijke stroming behoort u (of voelt u zich sterk bij betrokken)? Wilt u de best passende aankruisen?
    - ❒ 1 Geen
    - ❒ 2 Christendom
        - ○ 3 Rooms Katholieke Kerk
        - ○ 4 Protestantse Kerk in Nederland (PKN)
        - ○ 5 Kerk met 'gereformeerd' in de naam
        - ○ 6 Evangelische, Pinkster- of Baptistengemeente
    - ❒ 7 Islam
    - ❒ 8 Jodendom
    - ❒ 9 Humanistisch Verbond
    - ❒ 10 New Age of verwante stroming
    - ❒ 11 Anders, nl. ……..

Wilt u ook de laatste vragen over uzelf nog invullen?

15. Ik ben ❒ man ❒ vrouw

16. Mijn leeftijd is …. jaar

17. Ik heb ❒ geen partner ❒ wel een partner ❒ geen partner meer

18. De hoogste opleiding die ik heb afgerond of waar ik op dit moment mee bezig ben, is… *(1 vakje aankruisen)*
    - ❒ 1 basisschool/ lagere school, VGLO
    - ❒ 2 lager beroepsonderwijs (bijv. LTS, LEAO, huishoudschool, VMBO - basis- of kaderberoepsgerichte leerweg)
    - ❒ 3 MAVO/ (M)ULO/ VMBO - gemengde of theoretische leerweg
    - ❒ 4 middelbaar beroepsonderwijs (bijv. MTS/ MEAO)
    - ❒ 5 HAVO, VWO, Lyceum, Atheneum, Gymnasium, HBS, MMS
    - ❒ 6 hoger beroepsonderwijs (bijv. PABO, HTS)
    - ❒ 7 wetenschappelijk onderwijs

Dit is het einde van deze vragenlijst.

Controleer of u alle vragen hebt ingevuld.

Hartelijk bedankt voor uw medewerking!