

1-1-2016

The Benefits of Gratitude in Spiritual Formation: Collaborative of Gratefulness in a Christian Church Community

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Recommended Citation

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The Benefits of Gratitude in Spiritual Formation:
Collaborative Development of a Gratefulness Intervention in a Christian Church Community

by
Jens Uhder

Presented to the Faculty of the
Graduate Department of Clinical Psychology
George Fox University
in partial fulfillment
of the requirements for the degree of
Doctor of Psychology
in Clinical Psychology

Newberg, Oregon

March, 2016

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has been approved

at the

Graduate School of Clinical Psychology

George Fox University

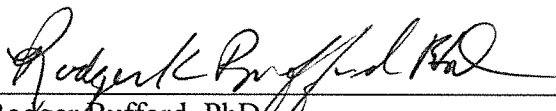
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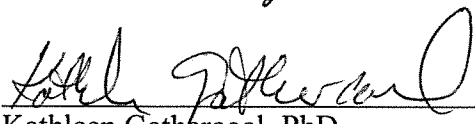


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Abstract

This field experiment examined the effects of a gratefulness intervention in the context of a Christian church congregation. Two Evangelical congregations with comparable demographic and socio-economic characteristics were enrolled and assigned to the experimental and comparison conditions. In an effort to integrate psychological intervention techniques with established spiritual formation practices, the intervention was developed collaboratively with church leaders.

In addition to examining the well-known benefits of gratefulness – strengthening of interpersonal relationships, increased life satisfaction, psychological well-being (PWB), and enhanced spiritual well-being (SWB), this research considered whether the practice of gratitude mobilized participants to engage others inside and outside the congregation. It also considered whether the collaborative approach in conducting the study impacted the perception of psychology among participating clergy and church members.

Outcome data were analyzed using mixed-method ANOVAS. Significant within-subject effects were found for PWB, SWB, and life satisfaction. However, since the comparison group showed increases for SWB and life satisfaction in the absence of a gratitude intervention, only improvements in PWB are well supported. No significant changes occurred on measures of interpersonal engagement. As a result of this collaborative study participants rated psychologists and interdisciplinary collaboration more favorably than they had in the beginning.

This research represents the first quasi-experiment to study a gratitude intervention within a faith congregation. In spite of methodological limitations, it highlights the potential benefit of gratitude interventions designed in collaboration with clergy.

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Chapter 1

Introduction

The greatest blessing of maturity is that gratitude may transcend the single occasion, to become both habitual and continuous. (D. Elton Trueblood, 1982, p.18)

More than a decade of research has yielded compelling evidence of the benefits of gratitude. Numerous studies have explored the correlates of dispositional gratitude. It has been consistently shown that trait gratitude is positively related to happiness, wellbeing, and even some parameters of physical health such as sleep quality or stress-response (Wood, Froh, & Geraghty, 2010). Gratitude shows stronger correlations to optimism, hope, positive affect, and life-satisfaction than any of the Big Five personality traits. People with a grateful disposition also tend to have empathy, be forgiving, and trusting (Emmons & McCullough, 2003; Watkins, 2014). Grateful individuals are more perceptive of simple everyday pleasures (Watkins, Woodward, Stone, & Kolts, 2003), show better recovery from traumatic experiences (Kashdan, Uswatte, & Julian, 2006), have a more proactive coping style, and are more likely to seek social support than those who are less grateful (Wood, Maltby, Linley, & Joseph, 2008).

Increasingly, gratitude interventions and studies are beginning to emerge in applied psychology settings. The potential role of gratitude as a resilience factor is now being studied in educational environments (Bird & Markle, 2012; Froh, Bono, & Emmons, 2010; Ma, Kibler, &

Sly, 2013), work-related contexts (Lanham, Rye, Rimsky, & Weill, 2012), health psychology (Ruini & Vescovelli, 2013), and clinical psychology (Huffman et al., 2014; Nelson, 2009).

Although a recent handbook chapter by Rye, Wade, Fleri, & Kidwell (2013) offered some interesting suggestions, experimental outcome research on ways to promote the expression of gratitude among religious groups is virtually non-existent at this point. Whereas the correlation between dispositional gratitude and various spiritual attributes is well documented (Emmons & Kneezel, 2005; McCullough, Emmons, & Tsang, 2002; Watkins et al., 2003), the function of gratefulness in the context of spiritual beliefs and practices is not clear. Yet there are several reasons why religious gratitude may be a particularly suitable candidate for psychology of religion research. First, it would be interesting to examine the potential role of gratitude as one of the factors mediating the benefits of religious attendance for mental and physical health (e.g., Koenig, McCullough, & Larson, 2001; Strawbridge, Shema, Cohen, & Kaplan, 2001). In a recent correlational study Sandage, Hill, and Vaubel (2011) found that dispositional gratitude mediated the relationship between generativity and mental health symptoms in a sample of Evangelical college students. Their findings point to the central role gratitude may play as an “amplifier of the good” (Watkins, 2014, p. 248). Second, gratitude may provide a point of common interest between clergy and psychologists. Clergy are often first responders and preferred providers in mental health crisis situations (VanderWaal, Hernandez, & Sandman, 2012), and the workload of individual counseling and the psychological needs of parishioners frequently represent a challenge to pastors. Ministers are often interested in receiving supportive consultations from mental health professionals (Lish, McMinn, Fitzsimmons, & Root, 2003), but this may be impeded by significant value discrepancies between clergy and mental health

professionals (Newberry & Tyler, 1997). Promoting pro-social values such as gratitude could help provide a basis of shared values for collaboration. Finally, gratitude interventions could give therapists a mutually accepted spiritual focus in their work with religious clients. Emmons and Stern recently provided an outline of what this shared therapeutic space may look like:

Gratitude practice is intentionally shifting your attention from the negative to the positive and allowing your inner voice to speak that truth. The ability to perceive the elements (negative and positive) in one's life, and even life itself, as gifts, would appear essential if tragedies can be transformed into healing opportunities. Cultivating this level of gratitude allows healing from past wounds and a look to the future with a fresh affirmation toward life." (2013, p. 853)

The purpose of this research is to collaborate with a church congregation in the process of designing, and evaluating an experimental gratefulness intervention to examine the effects of grateful processing in a religious context and to explore how gratitude may help build a basis of shared values and trust between psychologists and religious communities.

Defining Gratitude as a Spiritual Trait

Following Rosenberg's (1998) taxonomy of emotions, gratitude can be understood at three levels: (a) an *emotion* – an acute and momentary affective experience, (b) a *mood* – an affective state that is more long-lasting and at the same time less conscious, and (c) an *affective trait* – a stable predisposition that defines a person's characteristic way of emotional responding (McCullough et al., 2002; Watkins, 2014). At the most basic level, gratitude has been defined as "a *positive emotional reaction* to the receipt of a benefit that is perceived to have resulted from the good intentions of another" (Tsang, 2006, p. 139). McCullough, Kilpatrick, Emmons, and

Larson (2001) defined gratitude as a *moral emotion* that fulfills important prosocial functions. It signals the receipt of a favor and prompts the recipient to respond and provide positive reinforcement to the benefactor. Often the reciprocal action will even extend beyond the benefactor to others resulting in a feedback circle that perpetuates prosocial behavior in the broader social environment – a process Nowak and Roch (2007) have called upstream reciprocity. Perhaps the joyful magic of the Holiday season could serve as a fitting illustration of this cycle of mutual benevolence in action creating a temporary grateful mood state. Of course, the moral affect of gratitude can very well take on trait characteristics in individuals who develop a lasting and overarching schema that makes them more likely to notice received benefits, attribute them to a benevolent source, and reciprocate through responsive action.

Wood et al. (2010) expanded the concept of trait gratitude, proposing that it is not just a propensity to acknowledge favors received from others but actually a more wide-ranging “*life-orientation* towards noticing and appreciating the positive in life” (p. 892). Emmons and Stern (2013) describe gratitude as having a worldly and a transcendent dimension. As a worldly cognitive-affective state it corresponds to the above definitions, at the transcendent level it represents a perceptive awareness leading to a sense of connectedness with others and with the generous sustaining forces at work in the world. This quality of gratitude is a significant distinguishing factor from the self-absorbed sense of satisfaction a narcissist would experience in response to a received benefit. It corresponds well with the life-orientation conception of gratitude proposed by Wood et al. (2010), which seems to presume the ability to transcend the self and develop an interdependent view of the world.

The important distinction between self-focus and other-focus is also essential in determining the difference between gratitude and indebtedness (Mathews & Green, 2010). According to Greenberg (1980), indebtedness is an aversive “state of obligation to repay another” (p. 4). The ability to transcend the self and see oneself in the context of a larger whole that bestows undeserved goods on everyone seems to be a necessary component of trait gratitude.

Both the worldly prosocial and the transcendent dimensions of gratitude have been emphasized in the Christian church across the ages. An attitude of gratefulness is seen as an expression of awareness of the benevolence and the faithful provision of God in all aspects of life. The 14th century Dutch monk Thomas à Kempis (1952) wrote,

Be thankful for the smallest blessing, and you will deserve to receive greater. Value the least gifts no less than the greatest, and simple graces as especial favors. If you remember the dignity of the Giver, no gift will seem small or mean, for nothing can be valueless that is given by the most high God. (p. 82)

Gratitude is seen as completing a circle that begins with God reaching out to humans and results in a complementary movement in which humans respond to God in thanksgiving. Both are seen as belonging together. The biblical writer Luke described the perplexity of Christ as only one of the ten lepers he healed returned to express gratitude: "Were not all ten cleansed? Where are the other nine? Was no one found to return and give praise to God except this foreigner?" (Luke 17:17-18 NIV) The complementary nature of grace and gratitude was also emphasized by Calvin. He saw gratitude as the natural and appropriate response to the experience of grace. (Gerrish, 1993)

Correlational research has found that religious beliefs and spirituality are positively related to dispositional gratitude. Grateful people tend to have higher levels of intrinsic religiosity but usually report lower levels of extrinsic religiosity (Watkins et al., 2003). Gratitude in religious people is associated with a sense of nearness to God and a more secure attachment to God (Uhder & Watkins, 2012; Watkins, Xiong, & Kolts, 2008). Grateful people also score higher on spiritual transcendence, a general sense of connectedness with sources of meaning outside the self (e.g., Diessner & Lewis, 2007). However, trait gratitude is unrelated to Quest religiosity (McCullough et al, 2002; McCullough, Tsang, & Emmons, 2004).

The Practice of Gratitude in Promoting Wellness

Three types of interventions have been used in experimental research. In grateful reflection or recounting interventions participants are typically asked to think of or write down a certain numbers of benefits they experienced during a specific period of time. The number of items to remember has varied from three (Seligman, Steen, Park, & Peterson, 2005) to five (Emmons & McCullough, 2003; Froh, Sefick, & Emmons, 2008) or six (Geraghty, Wood, & Hyland, 2010), and up to an unlimited number (Sheldon & Lyubomirsky, 2006; Watkins et al., 2003). Time intervals have varied between daily and weekly. Frequency and duration of the interventions have also varied. Participants were asked to write lists between one single time (Watkins et al., 2003) and multiple times over a 10-week period (Emmons & McCullough, 2003 – Study 1) in intervals between daily and once a week. Watkins (2014) cautioned against extending the intervention for too long and asking for too many items as loss of interest or the experience of having to search for things to write down may interfere with the benefits. A second type of intervention involves expressing one's gratitude towards someone (Seligman et al., 2005;

Watkins et al., 2003). A third sort of intervention used by Watkins, Cruz, Holben, and Kolts (2008) instructed participants to think about open memories of life experiences they still struggle to understand. This exercise aims at bringing closure to these experiences through a process of grateful reappraisal. No study could be found that examined the effect of any of these interventions in a religious setting.

While the benefits of gratitude for wellbeing are well-documented, experimental research directly exploring the precise modes of action that lead to these effects is slow to emerge. At the intrapersonal level, a grateful outlook seems to increase awareness of and savoring of positive experiences. Watkins (2014) summarizes several studies from his research lab to highlight some of the potential mechanisms. He suggested that grateful processing may help bring closure to unpleasant memories by providing positive scaffolding for meaning-making (Watkins et al., 2008; Uher, Kononchuk, Sparrow, and Watkins, 2010). In a recent study, he also found evidence that grateful processing may induce a positive memory bias and thereby counteract the development of maladaptive ruminative patterns (Watkins, Uher, & Piechinevsky, 2015). Another significant positive effect of grateful processing consists in bringing to mind continuously experienced favors and benefits that would otherwise go unnoticed as we become habituated to them. Lyubomirsky, Sheldon, and Schkade (2005) pointed out the need to cultivate a sense of novelty in the practice of grateful reflection in order to prevent this habituation effect, also known as hedonic treadmill. Other research has focused on the benefits of gratitude at the interpersonal level, suggesting that grateful practices may help by drawing attention away from the self to mutually enforcing relationships (Algoe, 2012), the building of positive interpersonal

feedback cycles (McCullough, Kimeldorf, & Cohen, 2008), and creating a sense of connectedness (Froh et al., 2010).

Gratitude and Spiritual Formation

Though gratitude has become a substantial focus in positive psychology research, and the ideological connections between gratitude and spirituality are apparent, there are very few studies published in scholarly journals that explore the connections between spiritual practices and gratitude. Lambert, Fincham, Braithwaite, Graham, and Beach (2009) conducted a series of longitudinal studies and demonstrated that prayer frequency predicted gratitude over time. This should not come as a surprise given the fact that prayer itself may, to a significant extent, consist of expressions of gratefulness which would perpetuate an attitude of gratitude. Moreover, spiritual practices are thought to have a direct impact on the experience of gratefulness. Emmons (2013) suggested that some traditional spiritual disciplines such as celebration, simplicity, service, or fasting are essentially ways to foster grateful awareness of the good experienced through savoring, sharing, and through temporarily depriving oneself of things that would otherwise be taken for granted. “My research interviews with people from a variety of backgrounds and life experiences lead me to conclude that an authentic, deeply held sense of gratefulness toward life requires some degree of deprivation” (p. 81).

Some Christian writers emphasize the value of paradoxical gratitude as a means of spiritual formation. For example, Nouwen (1992) wrote:

Gratitude as a discipline involves a conscious choice. I can choose to be grateful even when my emotions and feelings are still steeped in hurt and resentment. It is amazing how many occasions present themselves in which I can choose gratitude

instead of a complaint. I can choose to be grateful when I am criticized, even when my heart still responds in bitterness. I can choose to speak about goodness and beauty, even when my inner eye still looks for someone to accuse or something to call ugly. (p.84)

In this view, making a conscious choice to be grateful is not just a response to grace; it becomes itself a means of grace.

In their book *Quantum Change*, William Miller and Janet C'de Baca (2001) report the findings from a longitudinal interview study on 55 individuals who experienced sudden and permanent personality transformation resulting from spiritual peak experiences or moments of profound insight (see also C'de Baca & Wilbourne, 2004; Miller, 2004; Miller & C'de Baca, 1994 for detailed descriptions of the study method and findings). The authors revisit the term "Type-2 change" initially introduced by Williams James to distinguish these sudden profound changes that occur as a consequence of an identifiable transformative moment or event from the much slower continuous change processes that happen through learning and habit formation ("Type-1 change"). One of the lasting fruits of such transformative experiences appears to be a general sense of gratitude. As Miller and C'de Baca (2001) describe, people who experienced quantum change "had the common sense that each new day and all of life is a gift. Anxiousness or envy for what is not gave way to awareness and gratitude for what is." (p.187)

In turn, individuals who exemplify the trait of gratitude also seem to exhibit a number of other traits that are descriptive of the participants interviewed in Miller and C'de Baca's (2001) Quantum Change study. Emmons (2007, 2013) reports several vignettes of such people. Self-reports from highly grateful people suggest that they tend to have a profound sense of abundance

and generosity, regardless of their socioeconomic status. They also show great levels of resilience and hopefulness, often in spite of adverse circumstances. Finally, similar to people who experienced quantum change, very grateful individuals are characterized by a sense of connectedness with others, and transcendent awareness (see Emmons, 2013, pp. 1-4, 21-22).

Given these parallels, it is certainly not unfounded to consider whether cultivating gratitude through the practice of spiritual disciplines may represent a very promising Type-1 pathway to the sort of mature perspective that is also the quintessential fruit of transformative breakthrough experiences. Perhaps we might see it as evidence of the spiritual maturity that is the goal of the Christian life. The apostle Paul insinuates this particular set of attitudes in the parting words of his letter to the believers in Philippi whom he felt particularly connected with:

Rejoice in the Lord always. I will say it again: Rejoice! Let your gentleness be evident to all. The Lord is near. Do not be anxious about anything, but in everything, by prayer and petition, with thanksgiving, present your requests to God. And the peace of God, which transcends all understanding, will guard your hearts and your minds in Christ Jesus. (Phil. 4:4-7 NIV)

From a psychological perspective, the spiritual maturity that is reflected here may perhaps be compared to the concept of *eudaimonic* happiness, a state of congruence that results when people live in accordance with their values and convictions (Waterman, 1993). This higher sense of moral congruence is distinguished from *hedonic* well-being, which is related to drive fulfillment and short-term gratification. Wood, Joseph, and Maltby (2009) found that gratitude predicted the variation of four of the six eudaimonic happiness dimensions measured in Ryff's Psychological Well-Being Scales (Ryff, 1989;

Ryff & Keyes, 1995) above and beyond the Big Five personality traits. Their finding is in harmony with other studies that point to the important function gratitude may play in promoting positive meaning-making and adaptive personal growth motives (e.g., Kashdan et al., 2006; Watkins et al. 2008).

Purpose and Predictions

How could a Christian faith community benefit from a gratitude intervention? The purpose of this study is to examine three areas of potential benefit of gratitude interventions that are well established in the literature (e.g., Wood et al., 2010): (a) Strengthening of interpersonal relationships, (b) Increasing subjective wellbeing, and (c) Enhancing spiritual wellbeing. Additionally, the study will address two further questions of interest: Does gratitude help to motivate participants to engage people outside the congregation? How does the collaborative approach in designing, administering, and evaluating the intervention impact the perception of psychology among participating clergy and church members? I hypothesize that

1. Participants in a gratefulness intervention will show significant gains in satisfaction with life and in psychological, and spiritual well-being. These will be significantly larger than those within a comparison group that does not participate in such an intervention.
2. Gratefulness will stimulate interpersonal engagement inside and outside the congregation.
3. Participants' views of psychology will be more favorable after the intervention than before.

Chapter 2

Method

Participants

Two small-town congregations in the Pacific Northwest agreed to participate in this research. One congregation was assigned to be the intervention group, the other one became the wait-list comparison group. After the first congregation completed the intervention, the second congregation then engaged in a similar gratitude intervention. This approach poses obvious methodological problems, as it does not allow to control for systematic error variance introduced by group or time factors apart from the intervention. Nevertheless, it was decided to assign whole congregations to the study groups for the following reasons: (a) The expectation on the part of the pastors and the leadership teams that the effort of preparing interventions will benefit the entire congregation as a prerequisite for participating, and (b) the perceived benefit of mutual reinforcement within the congregation as a motivating factor. A brief 3-item gratitude questionnaire was given to all members of both congregations on three Sunday morning worship services, and a more intensive battery of questionnaires was collected from a convenience sample of participants in each congregation during the same three data collection periods. The gratitude group consisted of 27 participants, the comparison group of 29 participants 27 of which completed all three measurements. The groups were equivalent for age, gender composition, race, employment status, level of trait gratitude, tendency for desirable responding. However, there was a significant difference in education ($\chi^2=18.09$, $df=4$, $p < .001$) with a higher overall

level of education among the participants in the gratitude group. Details of these statistics are reported in Tables 1-5.

Table 1

Age Distribution with Test for Equivalence

| Group | <i>N</i> | Mean | <i>SD</i> | |
|--|----------|--------------------------------------|-----------|-----|
| Intervention | 27 | 51.91 | 14.32 | |
| Comparison | 29 | 52.45 | 13.01 | |
| Total | 56 | | | |
| | | | | |
| Levene's Test for Equality of Variance | | <i>t</i> -test for Equality of Means | df | Sig |
| F | Sig | <i>t</i> | | |
| 1.08 | .30 | -.14 | 54 | .89 |

Table 2

Gender Distribution with Test for Equivalence

| Gender | Intervention Group | Comparison Group | Total |
|-------------------------|--------------------|-----------------------|-------|
| Male | 11 | 9 | 20 |
| Female | 16 | 20 | 36 |
| Total | 27 | 29 | 56 |
| | | | |
| Pearson Chi-Square Test | | | |
| Chi-Square | <i>df</i> | Asymp. Sig. (2-sided) | |
| .57 | 1 | .45 | |

Table 3

Race distribution

| Race/Ethnicity | Intervention Group | Comparison Group | Total |
|-------------------|--------------------|------------------|-------|
| European-American | 24 | 25 | 49 |
| Native American | 1 | 0 | 1 |
| Total | 25 | 25 | 50 |

Table 4

Levels of Education with Test for Equivalence

| Gender | Intervention Group | Comparison Group | Total |
|------------------|--------------------|------------------|-------|
| High school | 0 | 4 | 4 |
| Some college | 1 | 11 | 12 |
| College degree | 9 | 6 | 15 |
| Graduate classes | 2 | 3 | 5 |
| Graduate degree | 15 | 5 | 20 |
| Total | 27 | 29 | 56 |

Pearson Chi-Square Test

| Chi-Square | df | Asymp. Sig. (2-sided) |
|------------|----|-----------------------|
| 18.085 | 4 | .001 |

Table 5

Employment status with test for equivalence

| Gender | Intervention Group | Comparison Group | Total |
|---------------|--------------------|------------------|-------|
| Employed | 17 | 19 | 36 |
| Unemployed | 8 | 7 | 15 |
| Self-employed | 2 | 3 | 5 |
| Total | 27 | 29 | 56 |

| Pearson Chi-Square Test | | |
|-------------------------|----|-----------------------|
| Chi-Square | df | Asymp. Sig. (2-sided) |
| .307 | 2 | .86 |

Measures

Dispositional gratitude. In order to verify the equivalence of the intervention and the comparison group, trait gratitude will be measured using the Gratitude and Resentment Scale-Short Form (GRAT-S; Thomas & Watkins, 2003; Diessner & Lewis, 2007). The GRAT-S has three subscales measuring Sense of Abundance ($\alpha = .80$), Appreciation for Simple Pleasures ($\alpha = .87$), and Social Appreciation ($\alpha = .76$). It consists of 16 items rated on a 9-point Likert scale ranging from 1 (*I strongly disagree*) to 9 (*I strongly agree with this statement*). The full scale has excellent reliability ($\alpha = .92$). (Copies of all questionnaires used are displayed in Appendix A.)

Positive and negative affect. One of the most widely used measures of affective state, the Positive and Negative Affect Scales (PANAS; Watson, Clark, & Tellegen, 1988) measure two primary dimensions of mood. They consist of 10 positive (e.g., excited) and 10 negative (e.g., distressed) items measured using a 5-point Likert-type scale ranging from 1 (*very slightly or not at all*) to 5 (*extremely*). Alpha coefficients for these two scales are between .85 and .90.

Following McCullough et al., 2002 and Watkins et al. 2008 three items will be added that specifically describe grateful affect: “Grateful,” “thankful”, and “appreciative.” This provides a measure of state gratitude. The 3-item scale is rated with the same 5-point rating-scale as the PANAS and has shown good internal consistency ($\alpha = .87$, McCullough et al. 2002). It was administered to all attendees of a Sunday morning worship service at the three assessment time intervals (beginning and end of the first congregation’s intervention, and again at the end of the second congregation’s intervention).

Life satisfaction. The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985; Pavot & Diener (1993); Pavot, Diener, Colvin, & Sandvik, 1991) is one of the most commonly used measures of subjective happiness in psychology. Its five items are rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The SWLS has a 2-month test–retest correlation coefficient of .82 and an internal consistency of $\alpha = .87$ (Diener et al., 1985).

Subjective wellbeing. Changes in subjective levels of wellbeing will be measured using the Psychological Well-Being Scales (PWB; Ryff, 1989; Ryff & Keyes, 1995), a of 42-item questionnaire measuring six dimensions of happiness: Autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self-acceptance. Importantly, it reflects the existential facet of eudaimonic well-being that has been linked to gratitude.

Religious experiences and spiritual wellbeing. Given the place of God as the ultimate source of all good received and the primary focus of gratitude in the Christian view, it is important to consider how grateful practice may influence participants’ religious experiences and wellbeing. Religious experiences were assessed with the Daily Spiritual Experiences Scale

(DSES; Underwood & Teresi, 2002), a 15-item questionnaire and an additional single item measuring connectedness with the divine. The first 15 items use a 6-point rating scale ranging from 1 (*Never or almost never*) to 6 (*Many times a day*). The Daily Spiritual Experiences score is computed by averaging these items; higher scores reflect higher frequency of “experiences of connection with the transcendent in daily life” (Underwood, 2011, p. 29). Item 16 is a single-item measure of self-reported closeness to God. It uses a 4-point rating scale ranging from 1 (*Not close*) to 4 (*As close as possible*), so that higher scores reflect a larger degree of felt closeness. The Spiritual Wellbeing Scale (SWB; Paloutzian & Ellison, 1991) was used to measure religious wellbeing. The SWB consists of two 10-item subscales, the Religious and the Existential Wellbeing Scales. Internal consistency coefficients ranged from $\alpha = .82$ to $.94$ for the Religious Wellbeing Scale, and from $\alpha = .78$ and $.86$ for the Existential Wellbeing Scale (Bufford, Paloutzian, & Ellison, 1991).

Interpersonal engagement. To assess how gratefulness influences interpersonal relationships, the Supportive Presence Scale was developed (McMinn, 2014a). This scale measured participants’ attitudes and their actual behaviors over the previous month in two separate areas: providing practical help and offering emotional support. Each of these 4 items was presented in two variations, one focusing on fellow parishioners, the second one on others outside the congregation as recipients. The resulting 8-items were rated on a 7-point Likert-scale ranging from 1 (*Not at all*) to 7 (*A great deal*).

Social desirability. An 11-item abbreviated version of the Marlowe-Crowne Social Desirability Scale (Reynolds, 1982) was used to verify participants’ tendency to present

themselves in a socially desirable manner. Responses to the items are in a true-false format. The internal consistency of the scale was reported as $r_{KR20} = .74$.

Perception of interdisciplinary collaboration. For the purpose of this study, a brief questionnaire was developed to assess perceptions about positive psychology and the value of collaborating with psychologists among the leaders and participants from the participating congregations (McMinn, 2014b). The measure consisted of six items and used a 7-point Likert scale ranging from 1 (*Strongly disagree*) to 7 (*Strongly agree*). Participants were asked to express their views regarding the following statements: (a) Positive psychology is a worthwhile endeavor, (b) Christians have things to learn from positive psychologists, (c) Positive psychologists have things to learn from Christians, (d) Positive psychology and Christianity share common values, (e) Psychological science can contribute to my faith, and (f) It is important for science and faith to work together.

Demographic questionnaire. Each participant was asked to complete a demographic questionnaire regarding information such as age, ethnicity/race, level of education, and employment status.

Intervention

One of the primary purposes of this research was the collaborative development of an intervention to promote gratefulness in a religious setting. While the spiritual quality of gratitude is widely recognized, little is known how spiritual practices contribute to grateful processing and can encourage the expression of gratitude. Simply importing an established gratitude intervention into a congregational setting would ignore the fact that the practice of gratitude has already been a part of Christian spirituality long before psychological researchers became interested in it. Interventions that accommodate rather than exclude religious beliefs may help to increase the

availability of evidence-based therapies for religious populations reluctant to engage in traditional psychotherapy (McCullough, 1999). It is not difficult to conceive how active collaboration with religious leaders can play a crucially important part in the process of developing spiritually integrated interventions and examples of such approaches are beginning to appear in the literature (e.g., Rosmarin, Pargament, Pirutinsky, & Mahoney, 2010). McMinn, Aikins, & Lish (2003) described a paradigm of *advanced collaboration* between clergy and psychologists. At the heart of such an approach is a two-way street of communication and goal formation that allows for the complementary expertise of psychologists and religious leaders to come to bear in the collaborative effort of promoting holistic and integrative practices of care.

As part of this research I sought to collaborate with the leaders of the two congregations in the design of a sound gratitude intervention that would, at the same time, be perceived as relevant and suitable to the culture and style of the church community. In an effort to provide the church leaders with a knowledge basis to make informed decisions, I developed a resource book presenting an engaging introduction to gratitude and to a variety of effective gratitude interventions based on current research findings. The leadership teams in both churches favored a 4-week intervention phase with a sermon series as the backbone of their respective campaigns. They also consented to recruiting a subset of about 20-25 church members to engage in a more intensive exploration of gratitude. The exact nature of this process was left at the discretion of the individual participants. However, it was agreed to provide these congregants with a popular book on gratitude. From a selection of three suggested titles the pastors selected Robert Emmons' (2013) 21-day study guide *Gratitude Works!* as it seemed to offer a very appropriate combination of science-based education and practical suggestions. The church leaders also

recruited groups of 30 members from their congregations to complete the online questionnaire packages used to determine the effectiveness of the interventions. These groups received weekly emails with reflections on gratitude. These reflections included links to inspirational videos posted online and a slideshow. I also created a brochure with 28 daily quotes taken from Ann Voskamp's book *One Thousand Gifts*. The participants on the email-lists received pdf-versions of this brochure and of the resource booklet. Free printed copies of these materials were also made available on display tables in the foyer outside the sanctuary (see Appendix B for a documentation of all resources and weekly communications to participants).

Procedure

This study is based on a crossover design with three data collection periods, as outlined in Table 6.

Table 6

Data Collection and Design

| Congregation 1 | Assessment 1 | Gratitude Intervention | Assessment 2 | No Intervention | Assessment 3 |
|----------------|--------------|------------------------|--------------|------------------------|--------------|
| Congregation 2 | Assessment 1 | No Intervention | Assessment 2 | Gratitude Intervention | Assessment 3 |

Before the intervention began in Congregation 1, selected participants in both congregations completed the questionnaire package containing the primary outcome and control measures. In addition, all attendees in both congregations were asked to complete a brief grateful state measure. At the end of the intervention period with Congregation 1, the primary outcome measures were re-administered and the brief congregation-wide questionnaire was administered

again. As several studies have documented significant long-term increases in well-being measures after the end of the intervention, participants in Congregation 1 completed the outcome measures a third time after the intervention was completed in Congregation 2. I also conducted voluntary focus groups with both congregations, which were audio-recorded in order to gain further insights about how participants experienced the gratitude campaign. Each church congregation received \$5,000 from grant funds as an incentive to participate in the study. Participants who completed the all three online questionnaire packages received a \$50 compensation.

Chapter 3

Results

Preliminary Analyses

Univariate analyses of variance (ANOVAs) were conducted to verify the equivalence of both groups in measures of trait gratitude and tendency to respond in a social desirable manner at Assessment 1. No significant differences were found in average GRAT-S scores, $F(1, 53) = .00$, $p = .99$ and average SDS scores, $F(1, 53) = .77$, $p = .38$). Details about these analyses are shown in Tables 7 and 8.

The changes over time on the various outcome measures were assessed using mixed-method ANOVAS, with the repeated-measures factor being changes across the three measurements and the between-groups factor being the two congregations (one receiving the intervention, the other one serving as a wait-list control). The ANOVA for the aggregated PANAS-gratefulness items served as an intervention check, with the assumption that a deliberate focus on reasons to be grateful should lead to some increase in state gratitude. Group scores for state gratitude (which will hereafter be referred to as gratefulness) across the three measurement times and statistical analyses are displayed in Table 9 and the associated diagram in Figure 1.

The ANOVA did not confirm the assumed effects on the PANAS gratefulness items, neither for change over time, $F(2, 104) = 1.89$, $p = .16$, nor the change over time x group interaction, $F(2, 52) = 1.21$, $p = .28$). The graphs in Figure 1 appear to show a mild gratefulness increase in the intervention group, which continued during the month following the intervention phase, though these increases were not confirmed with the repeated measures test.

Table 7

Trait gratitude with test for equivalence

| GRATS (Mean) | <i>N</i> | Mean | <i>SD</i> |
|--------------------|----------|------|-----------|
| Intervention Group | 27 | 7.73 | .87 |
| Comparison Group | 28 | 7.72 | .96 |
| Total | 55 | 7.73 | .91 |

| ANOVA | Sum of Squares | <i>df</i> | Mean Square | <i>F</i> | Sig. |
|----------------|----------------|-----------|-------------|----------|------|
| Between Groups | 0 | 1 | 0 | .00 | .99 |
| Within Groups | 44.58 | 53 | .84 | | |
| Total | 44.58 | 54 | | | |

Table 8

Tendency for desirable responding with test for equivalence

| SDS (Mean) | <i>N</i> | Mean | <i>SD</i> |
|--------------------|----------|------|-----------|
| Intervention Group | 27 | 4.23 | .70 |
| Comparison Group | 29 | 4.35 | .82 |
| Total | 56 | 4.28 | .76 |

| ANOVA | Sum of Squares | <i>df</i> | Mean Square | <i>F</i> | Sig. |
|----------------|----------------|-----------|-------------|----------|------|
| Between Groups | 0 | 1 | 0 | .77 | .38 |
| Within Groups | 44.58 | 53 | .84 | | |
| Total | 44.58 | 54 | | | |

Table 9

GLM with change in state gratitude between T1 and T3 as within subjects factor and Congregation (Intervention vs. Comparison group) as between-subjects factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|-----|------|-----|------|-----|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 4.08 | .69 | 4.22 | .51 | 4.37 | .56 |
| Comparison | 27 | 4.01 | .77 | 4.11 | .59 | 4.05 | .84 |
| Total | 54 | 4.05 | .73 | 4.17 | .55 | 4.21 | .72 |

| Multivariate Tests | | | | | | |
|-----------------------|---------------|-------|------|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| Gratef. Change | Wilks' Lambda | .94 | 1.58 | 2 | .22 | .06 |
| Gratef. Change x Grp. | Wilks' Lambda | .97 | 1.55 | 2 | .33 | .04 |

| Within-Subject Effects | | | | | | |
|------------------------|-------------|-----|------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Gratef. Change | .39 | 2 | 1.89 | 2 | .16 | .04 |
| Gratef. Change x Grp. | .25 | 2 | 1.21 | 2 | .30 | .02 |
| Error | .21 | 104 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 2777.89 | 1 | 2978.39 | 1 | <.01 | .98 |
| Group (Congreg.) | 1.13 | 1 | 1.21 | 1 | .28 | .28 |
| Error | 48.50 | 52 | | | | |

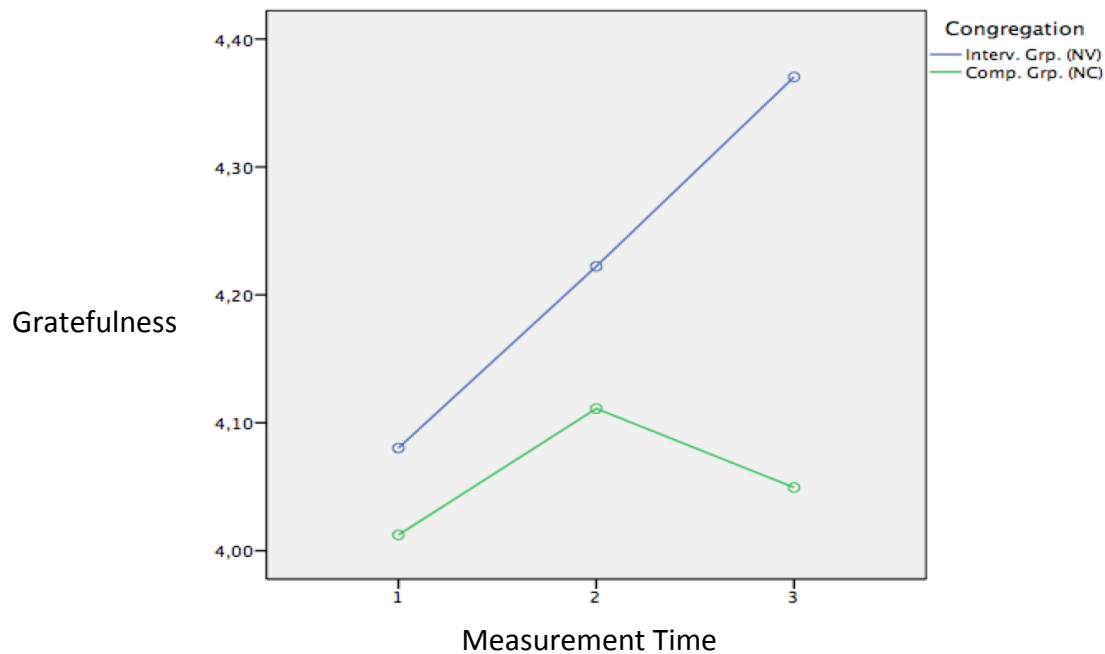


Figure 1. Profile plot of PANAS-gratefulness group scores at T1, T2, and T3.

Hypothesis 1

I predicted that participants who engaged in a gratitude ministry campaign would show significant gains in satisfaction with life and in psychological, and spiritual wellbeing. I also hypothesized that changes in the congregation used as a comparison group would show little or no changes during the waiting period, which coincided with the ministry phase in the intervention group.

Satisfaction with life. Regarding satisfaction with life, the results of the mixed-methods ANOVA to examine the changes in mean SWLS scores are displayed in Table 10. The repeated measures test indicates a significant change over time, $F(2, 104) = 9.23, p < .01, \eta^2 = .27$) but no interaction between the time and group factors, $F(2, 104) = 1.36, p = .27$. No differences

between groups were observed, $F(2, 52) = .50, p = .48$. The profile plot in Figure 2 shows that self reported life satisfaction among participants of the intervention group increased during the ministry phase and then plateaued. In the comparison group, life satisfaction increased during both, the waiting period and the gratitude ministry campaign. In spite of the SWLS increase in the comparison group, which is most likely unrelated to the intervention, the pattern these findings is largely consistent with the hypothesis.

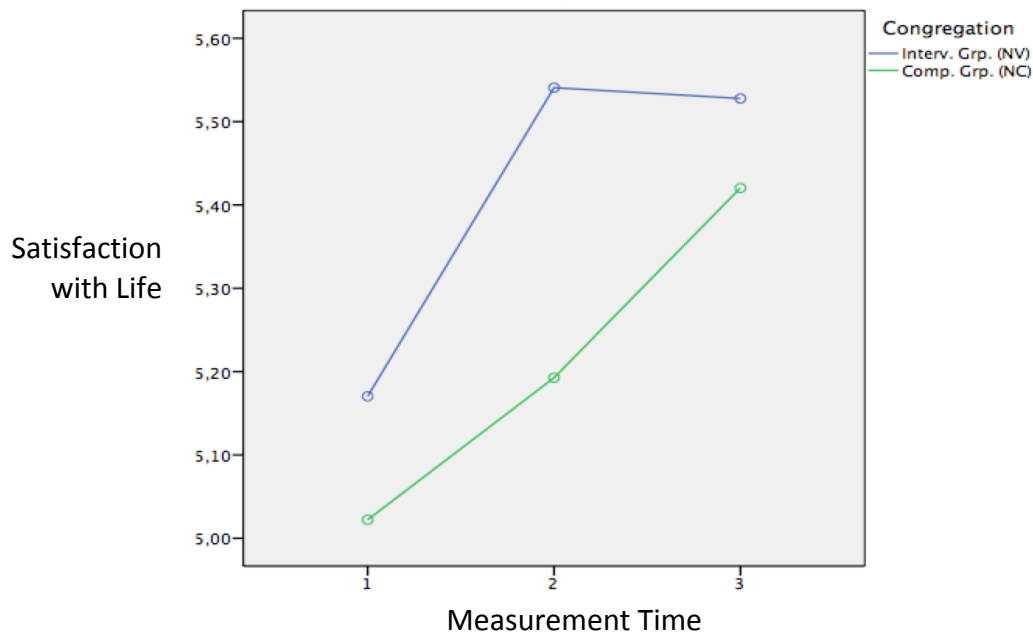


Figure 2. Profile plot of SWLS group scores at T1, T2, and T3

Table 10

GLM with Change in Life Satisfaction (SWLS) between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comparison group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|------|------|------|------|------|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 5.17 | 1.02 | 5.54 | 1.03 | 5.53 | .91 |
| Comparison | 27 | 5.02 | 1.38 | 5.19 | 1.16 | 5.42 | 1.06 |
| Total | 54 | 5.10 | 1.21 | 5.37 | 1.10 | 5.47 | .98 |

| Multivariate Tests | | | | | | |
|--------------------|---------------|-------|------|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| SWLS Change | Wilks' Lambda | .73 | 9.23 | 2 | <.01 | .27 |
| SWLS Change x Grp. | Wilks' Lambda | .95 | 1.36 | 2 | .27 | .05 |

| Within-Subject Effects | | | | | | |
|------------------------|-------------|-----|-------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| SWLS Change | 2.05 | 2 | 10.66 | 2 | <.01 | .17 |
| SWLS Change x Grp. | .22 | 2 | 1.17 | 2 | .32 | .02 |
| Error | .19 | 104 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 4571.81 | 1 | 1395.51 | 1 | <.01 | .96 |
| Group (Congreg.) | 1.64 | 1 | .50 | 1 | .48 | .01 |
| Error | 170.36 | 52 | | | | |

Psychological wellbeing. The statistics pertaining to the predictions regarding changes in Psychological Wellbeing PWB are reported in Table 11. As for the other variables, mixed-

methods ANOVA was computed. The repeated-measures analysis yielded a significant effect for the factor time $F(2,104) = 4.01, p = .02, \eta^2 = .14$, but no group x time interaction $F(2, 104) = 1.29, p = .28$. No differences between groups was observed, $F(2, 52) = .54, p = .46$. The graphs in Figure 3 show a similar pattern as seen for life satisfaction with a modest PWB increase in the intervention group and stable PWB in the comparison group between T1 and T2. After the intervention, PWB among participants of the intervention group remained stagnant. The gratitude campaign in the comparison group was associated with a slight increase in PWB. Overall, the changes in PWB matched the predicted pattern.

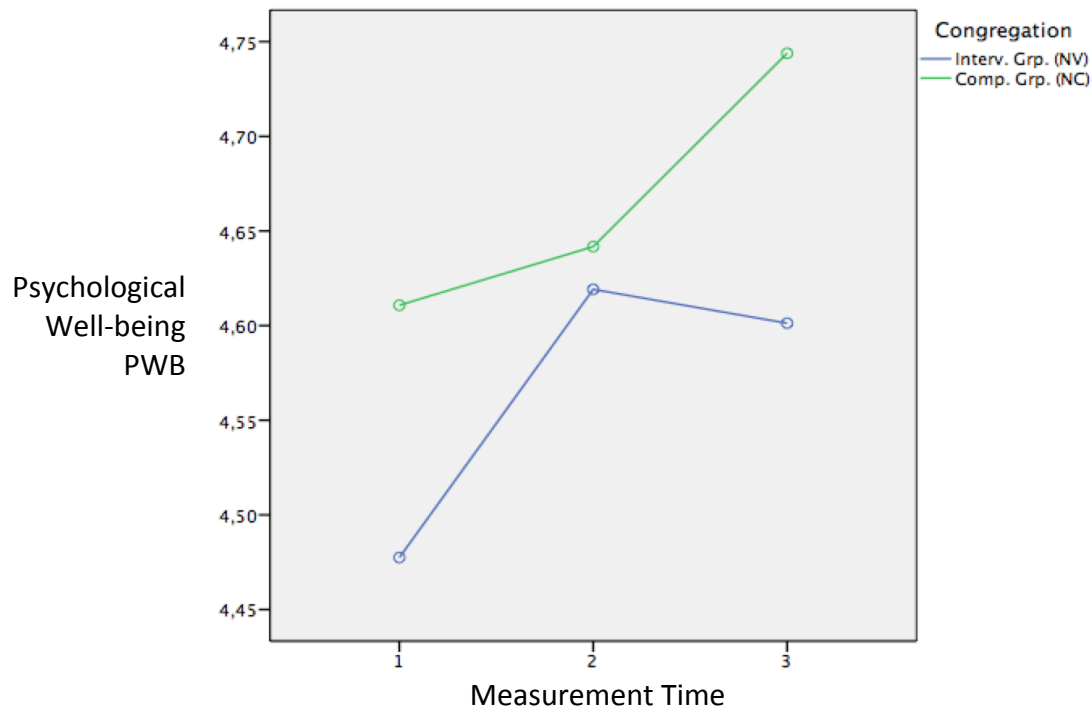


Figure 3. Profile plot of PWB group scores on T1, T2, and T3

Table 11

GLM with Change in Psychological Wellbeing (PWB) between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comparison Group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|-----|------|-----|------|-----|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 4.48 | .57 | 4.62 | .58 | 4.60 | .61 |
| Comparison | 27 | 4.62 | .50 | 4.64 | .43 | 4.74 | .45 |
| Total | 54 | 4.54 | .54 | 4.63 | .50 | 4.67 | .53 |

| Multivariate Tests | | | | | | |
|--------------------|---------------|-------|------|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| PWB Change | Wilks' Lambda | .86 | 4.01 | 2 | .02 | .14 |
| PWB Change x Grp. | Wilks' Lambda | .94 | 1.65 | 2 | .20 | .06 |

| Within-Subject Effects | | | | | | |
|------------------------|-------------|-----|------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| PWB Change | .23 | 2 | 4.98 | 2 | .01 | .09 |
| PWB Change x Grp. | .06 | 2 | 1.29 | 2 | .28 | .02 |
| Error | .05 | 104 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 3451.38 | 1 | 4680.30 | 1 | <.01 | .99 |
| Group (Congreg.) | .40 | 1 | .54 | 1 | .46 | .01 |
| Error | .74 | 52 | | | | |

Separate analyses were conducted for the six PWB facet scales. Statistically, the most notable repeated-measures effect occurred on Self-acceptance, $F(2, 104) = 6.48, p < .01, \eta^2 = .20$,

where both groups showed a continuous and significant increase across all three measurement times. No significant between-groups differences were found (see Table 12 and Figure 4). Non-significant trends consistent with the expected pattern were found for the Personal Growth (Table 13, Figure 5), Environmental Mastery (Table 14, Figure 6), and Positive Relations (Table 15, Figure 7) subscales. Differences across groups and measurement times on the Autonomy subscale (Table 16, Figure 8) and on the Purpose in Life subscale (Table 17, Figure 9) do not follow the hypothesized pattern.

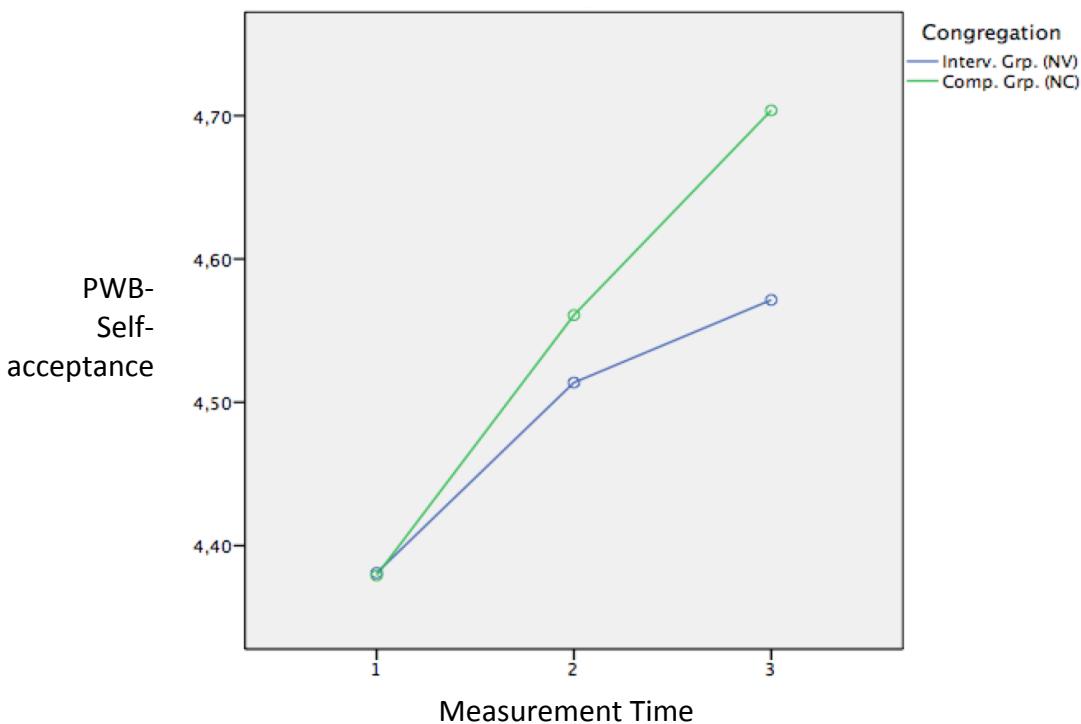


Figure 4. Profile plot of PWB-Self acceptance group scores at T1, T2, and T3

Table 12

GLM with Change in PWB-Self-Acceptance between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comparison Group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|-----|------|-----|------|-----|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 4.48 | .92 | 4.51 | .93 | 4.57 | .82 |
| Comparison | 27 | 4.38 | .95 | 4.56 | .80 | 4.70 | .75 |
| Total | 54 | 4.38 | .93 | 4.54 | .86 | 4.64 | .78 |

| Multivariate Tests | | | | | | |
|----------------------|---------------|-------|------|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| PWB-SA Change | Wilks' Lambda | .80 | 6.48 | 2 | <.01 | .20 |
| PWB-SA Change x Grp. | Wilks' Lambda | .98 | .50 | 2 | .61 | .02 |

| Within-Subject Effects | | | | | | |
|------------------------|-------------|-----|------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| PWB-SA Change | .91 | 2 | 8.31 | 2 | <.01 | .14 |
| PWB-SA Change x Grp. | .06 | 2 | .57 | 2 | .57 | .01 |
| Error | .11 | 104 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 3307.25 | 1 | 1634.00 | 1 | <.01 | .97 |
| Group (Congreg.) | .14 | 1 | .07 | 1 | .79 | .00 |
| Error | 2.02 | 52 | | | | |

Table 13

GLM with Change in PWB-Personal Growth between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comparison group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|-----|------|-----|------|-----|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 4.83 | .70 | 4.94 | .65 | 4.99 | .66 |
| Comparison | 27 | 4.93 | .54 | 4.87 | .51 | 5.06 | .48 |
| Total | 54 | 4.88 | .62 | 4.90 | .58 | 5.02 | .57 |

| Multivariate Tests | | | | | | |
|----------------------|---------------|-------|------|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| PWB-PG Change | Wilks' Lambda | .89 | 3.12 | 2 | .05 | .11 |
| PWB-PG Change x Grp. | Wilks' Lambda | .97 | .93 | 2 | .40 | .04 |

| Within-Subject Effects | | | | | | |
|------------------------|-------------|-----|------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| PWB-PG Change | .32 | 2 | 2.91 | 2 | .06 | .05 |
| PWB-PG Change x Grp. | .12 | 2 | 1.04 | 2 | .36 | .02 |
| Error | .11 | 104 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 2945.45 | 1 | 4646.12 | 1 | <.01 | .99 |
| Group (Congreg.) | .04 | 1 | .05 | 1 | .83 | .00 |
| Error | .85 | 52 | | | | |

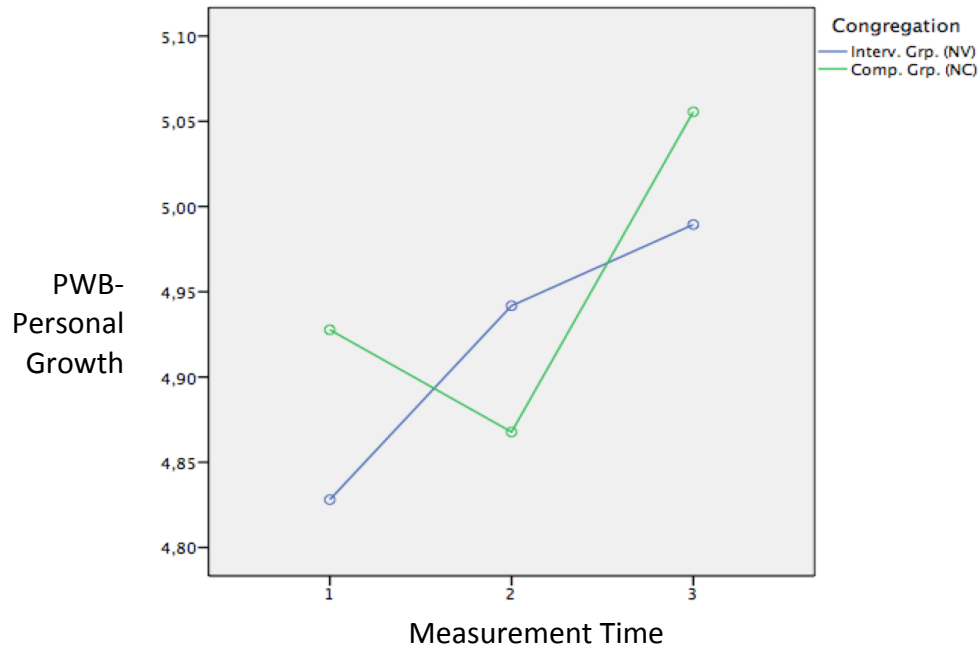


Figure 5. Profile plot of PWB-Personal Growth group scores at T1, T2, and T3.

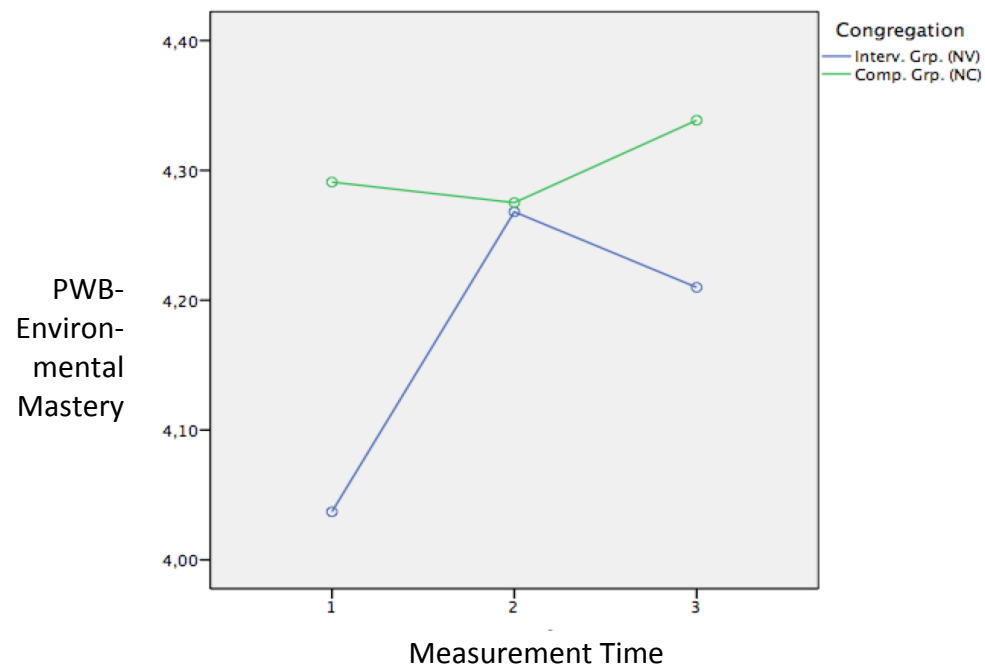


Figure 6. Profile plot of PWB-Environmental Mastery group scores on T1, T2, and T3

Table 14

GLM with Change in PWB-Environmental Mastery between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comparison group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|-----|------|-----|------|-----|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 4.04 | .67 | 4.27 | .61 | 4.21 | .66 |
| Comparison | 27 | 4.29 | .55 | 4.28 | .55 | 4.34 | .57 |
| Total | 54 | 4.16 | .57 | 4.27 | .57 | 4.27 | .61 |

| Multivariate Tests | | | | | | |
|----------------------|---------------|-------|------|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| PWB-EM Change | Wilks' Lambda | .91 | 2.56 | 2 | .09 | .09 |
| PWB-EM Change x Grp. | Wilks' Lambda | .92 | 2.26 | 2 | .16 | .08 |

| Within-Subject Effects | | | | | | |
|------------------------|-------------|-----|------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| PWB-EM Change | .21 | 2 | 2.36 | 2 | .10 | .04 |
| PWB-EM Change x Grp. | .21 | 2 | 2.27 | 2 | .11 | .04 |
| Error | .09 | 104 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 2907.74 | 1 | 3174.67 | 1 | <.01 | .98 |
| Group (Congreg.) | .68 | 1 | .75 | 1 | .39 | .01 |
| Error | .92 | 52 | | | | |

Table 15

GLM with change in PWB-Positive Relations between T1 and T3 as within subjects factor and Congregation (Intervention vs. Comparison group) as between-subjects factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|-----|------|-----|------|-----|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 4.75 | .68 | 4.96 | .63 | 4.86 | .67 |
| Comparison | 27 | 4.90 | .77 | 4.86 | .78 | 4.98 | .65 |
| Total | 54 | 4.82 | .72 | 4.91 | .70 | 4.92 | .66 |

| Multivariate Tests | | | | | | |
|----------------------|---------------|-------|------|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| PWB-PR Change | Wilks' Lambda | .96 | 1.17 | 2 | .32 | .04 |
| PWB-PR Change x Grp. | Wilks' Lambda | .90 | 2.99 | 2 | .06 | .11 |

| Within-Subject Effects | | | | | | |
|------------------------|-------------|-----|------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| PWB-PR Change | .15 | 2 | 1.35 | 2 | .26 | .03 |
| PWB-PR Change x Grp. | .25 | 2 | 2.19 | 2 | .12 | .04 |
| Error | .11 | 104 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 3862.46 | 1 | 3105.84 | 1 | <.01 | .98 |
| Group (Congreg.) | .12 | 1 | .10 | 1 | .76 | .00 |
| Error | 1.24 | 52 | | | | |

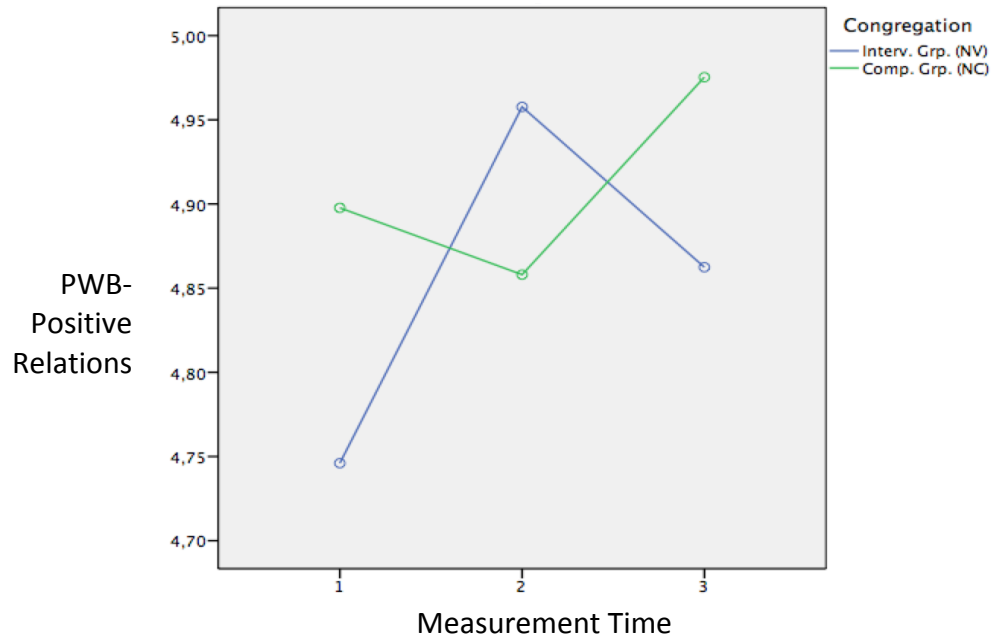


Figure 7. Profile plot of PWB-Positive Relations group scores at T1, T2, and T3

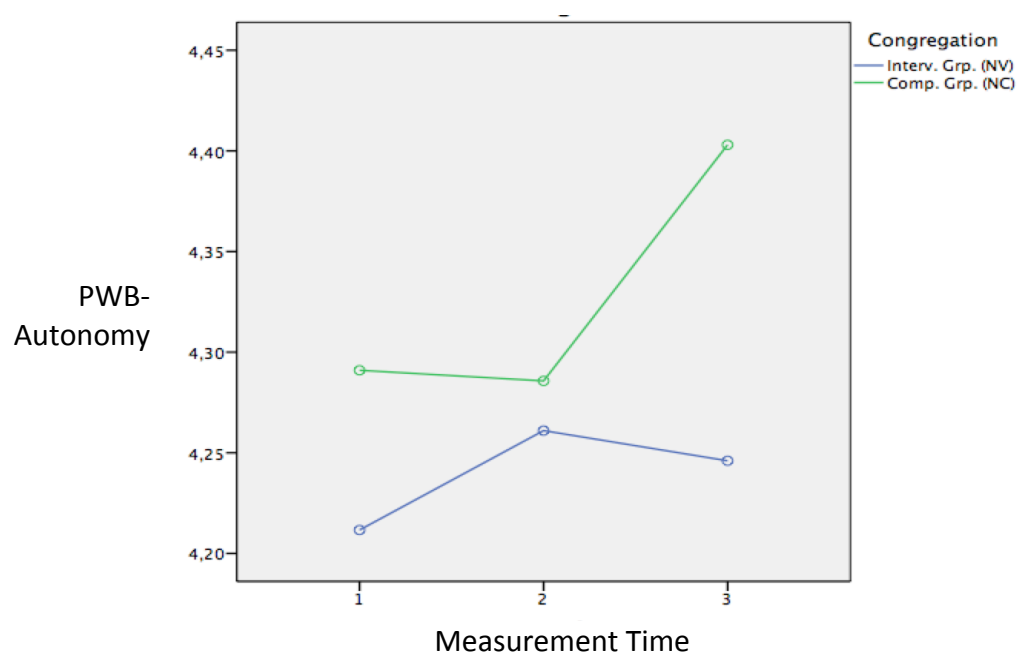


Figure 8. Profile plot of PWB-Autonomy group scores at T1, T2, and T3

Table 16

GLM with Change in PWB-Autonomy between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comparison group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|-----|------|-----|------|-----|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 4.21 | .80 | 4.26 | .80 | 4.25 | .71 |
| Comparison | 27 | 4.29 | .80 | 4.29 | .72 | 4.40 | .67 |
| Total | 54 | 4.25 | .79 | 4.27 | .76 | 4.32 | .69 |

| Multivariate Tests | | | | | | |
|----------------------|---------------|-------|-----|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| PWB-AU Change | Wilks' Lambda | .98 | .52 | 2 | .60 | .02 |
| PWB-AU Change x Grp. | Wilks' Lambda | .98 | .53 | 2 | .59 | .02 |

| Within-Subject Effects | | | | | | |
|------------------------|-------------|-----|-----|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| PWB-AU Change | .08 | 2 | .67 | 2 | .51 | .01 |
| PWB-AU Change x Grp. | .06 | 2 | .53 | 2 | .59 | .01 |
| Error | .11 | 104 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 2971.84 | 1 | 2023.13 | 1 | <.01 | .98 |
| Group (Congreg.) | .31 | 1 | .21 | 1 | .65 | .00 |
| Error | 1.47 | 52 | | | | |

Table 17

GLM with Change in PWB-Purpose in Life between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comparison group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|-----|------|-----|------|-----|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 4.66 | .74 | 4.77 | .71 | 4.71 | .68 |
| Comparison | 27 | 4.88 | .51 | 5.01 | .50 | 4.98 | .58 |
| Total | 54 | 4.77 | .64 | 4.89 | .62 | 4.85 | .64 |

| Multivariate Tests | | | | | | |
|----------------------|---------------|-------|------|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| PWB-PU Change | Wilks' Lambda | .93 | 1.96 | 2 | .15 | .07 |
| PWB-PU Change x Grp. | Wilks' Lambda | .10 | .77 | 2 | .93 | .00 |

| Within-Subject Effects | | | | | | |
|------------------------|-------------|-----|------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| PWB-PU Change | .20 | 2 | 1.88 | 2 | .16 | .04 |
| PWB-PU Change x Grp. | .01 | 2 | .09 | 2 | .92 | .00 |
| Error | .11 | 104 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 3789.11 | 1 | 3892.37 | 1 | <.01 | .99 |
| Group (Congreg.) | 2.41 | 1 | 2.48 | 1 | .12 | .05 |
| Error | .97 | 52 | | | | |

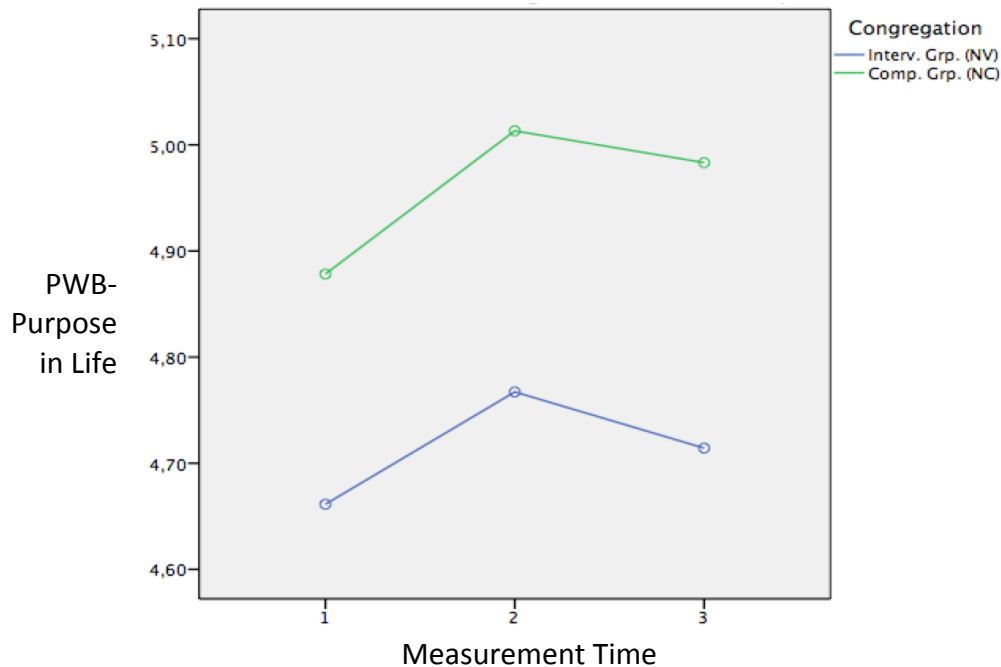


Figure 9. Profile plot of PWB-Purpose in Life group scores at T1, T2, and T3

Both the PANAS Positive Affect scale (excluding items directly referring to gratitude) and the Negative Affect scale were also used as separate measures of psychological wellbeing. The mixed-methods ANOVA for Positive Affect indicated a significant change over time, $F(2, 104) = 6.86, p < .01, \eta^2 = .21$). The time x group interaction was not significant, $F(2, 104) = 1.41, p = .25$. No significant group differences were found. On visual inspection of Table 18 it appears that the gratitude campaign was associated with an increase in positive affect among members of the intervention group, which continued beyond the end of the intervention. Participants in the comparison group also reported a substantial increase in positive affect during the waiting period, but a decline during the gratitude campaign this congregation (see Figure 10).

Table 18

GLM with Change in PANAS-Positive Affect between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comparison group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|-----|------|-----|------|-----|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 3.52 | .61 | 3.72 | .45 | 3.84 | .54 |
| Comparison | 27 | 3.60 | .61 | 3.79 | .53 | 3.70 | .63 |
| Total | 54 | 3.56 | .60 | 3.75 | .49 | 3.77 | .59 |

| Multivariate Tests | | | | | | |
|-------------------------|---------------|-------|------|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| Pos. Aff. Change | Wilks' Lambda | .79 | 6.86 | 2 | <.01 | .21 |
| Pos. Aff. Change x Grp. | Wilks' Lambda | .95 | 1.41 | 2 | .25 | .05 |

| Within-Subject Effects | | | | | | |
|-------------------------|-------------|-----|------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Pos. Aff. Change | .73 | 2 | 5.90 | 2 | <.01 | .10 |
| Pos. Aff. Change x Grp. | .22 | 2 | 1.78 | 2 | .18 | .03 |
| Error | .11 | 104 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 2212.03 | 1 | 3136.30 | 1 | <.01 | .98 |
| Group (Congreg.) | .00 | 1 | .00 | 1 | .98 | .00 |
| Error | .70 | 52 | | | | |

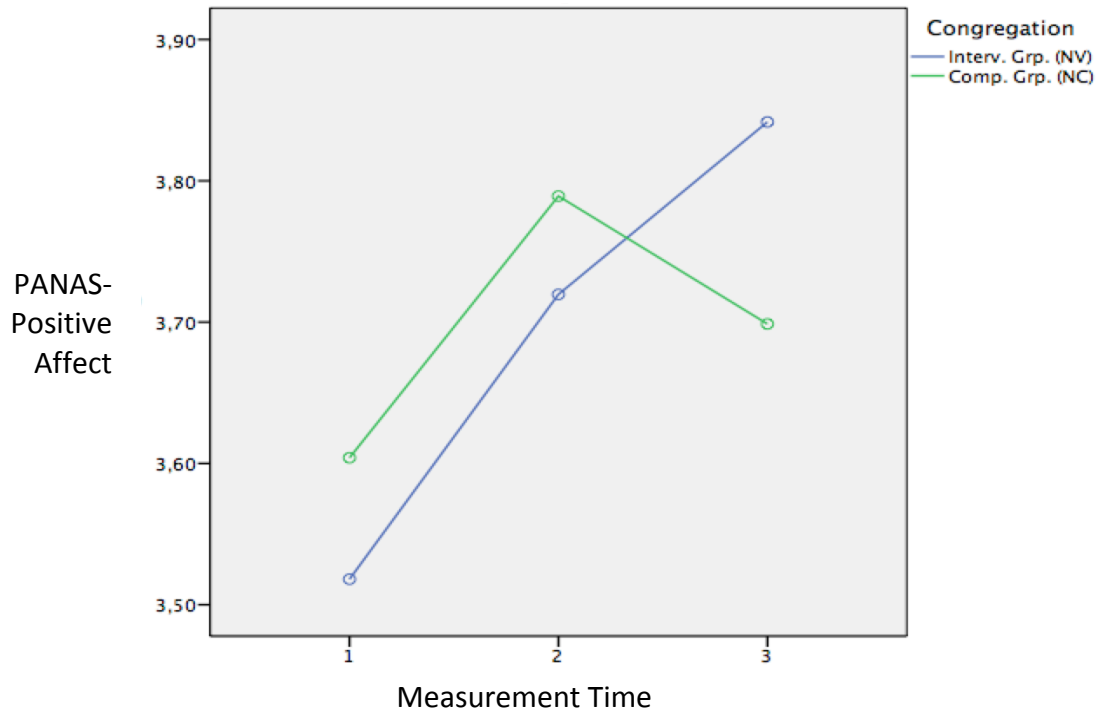


Figure 10. Profile plot of PANAS-Positive Affect group scores at T1, T2, and T3

The repeated-measures test for group and time differences in Negative Affect was also significant, $F(2, 104) = 3.25, p = .05, \eta^2 = .11$. Further analyses identified between-group differences as a significant source variance, $F(2, 52) = 6.12, p < .01, \eta^2 = .10$ (see Table 19). A profile plot indicates a marked decrease in negative affect among participants of the intervention group during their gratitude campaign, followed by a partial rebound. Members of the comparison group reported significantly less overall negative affect and manifested no gain during the gratitude campaign in their congregation (Figure 11).

Table 19

GLM with Change in PANAS-Negative Affect between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comparison group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|-----|------|-----|------|-----|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 2.10 | .75 | 1.78 | .58 | 1.96 | .68 |
| Comparison | 27 | 1.64 | .51 | 1.60 | .41 | 1.62 | .52 |
| Total | 54 | 1.87 | .68 | 1.69 | .50 | 1.79 | .62 |

| Multivariate Tests | | | | | | |
|-------------------------|---------------|-------|------|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| Neg. Aff. Change | Wilks' Lambda | .89 | 3.25 | 2 | .05 | .11 |
| Neg. Aff. Change x Grp. | Wilks' Lambda | .93 | 1.94 | 2 | .15 | .07 |

| Within-Subject Effects | | | | | | |
|-------------------------|-------------|-----|------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Neg. Aff. Change | .44 | 2 | 2.67 | 2 | .07 | .05 |
| Neg. Aff. Change x Grp. | .26 | 2 | 1.55 | 2 | .22 | .03 |
| Error | .17 | 104 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|--------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 516.80 | 1 | 734.14 | 1 | <.01 | .93 |
| Group (Congreg.) | 4.30 | 1 | 6.12 | 1 | .02 | .11 |
| Error | 36.53 | 52 | | | | |

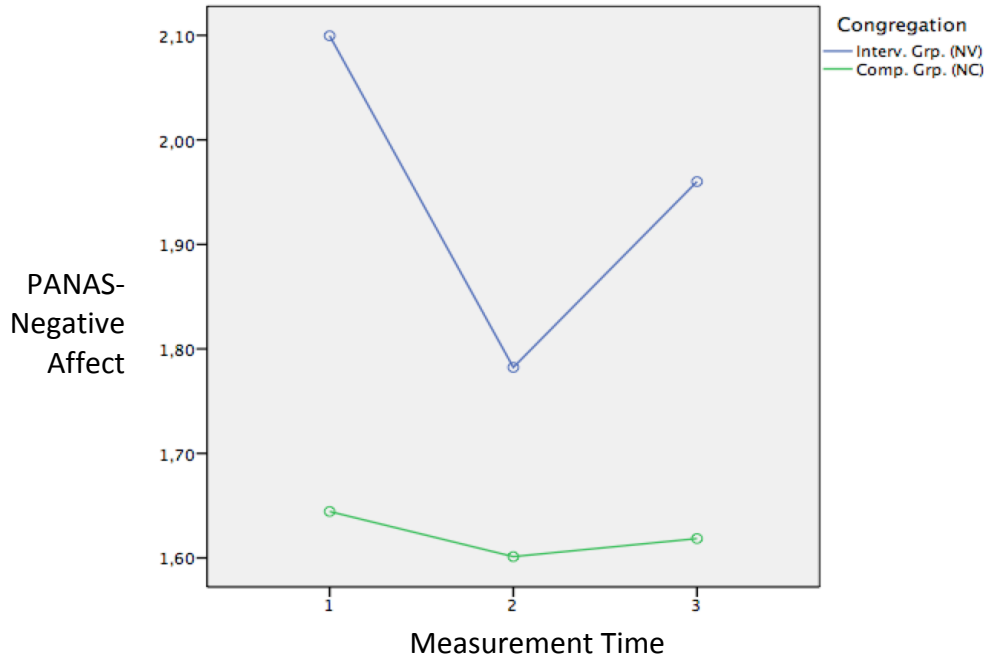


Figure 11. Profile plot of PANAS-Negative Affect group scores at T1, T2, and T3

Spiritual wellbeing. Participants' responses on the Spiritual Wellbeing Scale SWB suggested low to modest consistent increases across the duration of the study (Figure 12). Repeated-measures tests indicated significant effects, $F(2, 104) = 4.24, p = .02, \eta^2 = .14$ (see Table 20). However, the plotted trends in both groups only partially support the hypothesis. While participants in the intervention group reported increases in SWB during the intervention phase, members of the comparison group also reported a mild increase and did not show any noticeable response to their gratitude campaign. Both, the Religious Wellbeing and the Existential Wellbeing subscales showed matching patterns that are essentially represented by the full SWB.

Table 20

GLM with Change in Spiritual Wellbeing (SWB) between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comparison group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|-----|------|-----|------|-----|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 4.81 | .71 | 4.92 | .67 | 5.04 | .66 |
| Comparison | 27 | 5.22 | .65 | 5.30 | .62 | 5.33 | .63 |
| Total | 54 | 5.01 | .71 | 5.11 | .66 | 5.18 | .65 |

| Multivariate Tests | | | | | | |
|--------------------|---------------|-------|------|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| SWB Change | Wilks' Lambda | .86 | 4.24 | 2 | .02 | .14 |
| SWB Change x Grp. | Wilks' Lambda | .98 | .59 | 2 | .56 | .02 |

| Within-Subject Effects | | | | | | |
|------------------------|-------------|-----|------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| SWB Change | .40 | 2 | 5.83 | 2 | <.01 | .10 |
| SWB Change x Grp. | .05 | 2 | .76 | 2 | .47 | .01 |
| Error | .07 | 104 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 4217.33 | 1 | 3662.95 | 1 | <.01 | .97 |
| Group (Congreg.) | 5.31 | 1 | 4.61 | 1 | .04 | .08 |
| Error | 59.87 | 52 | | | | |

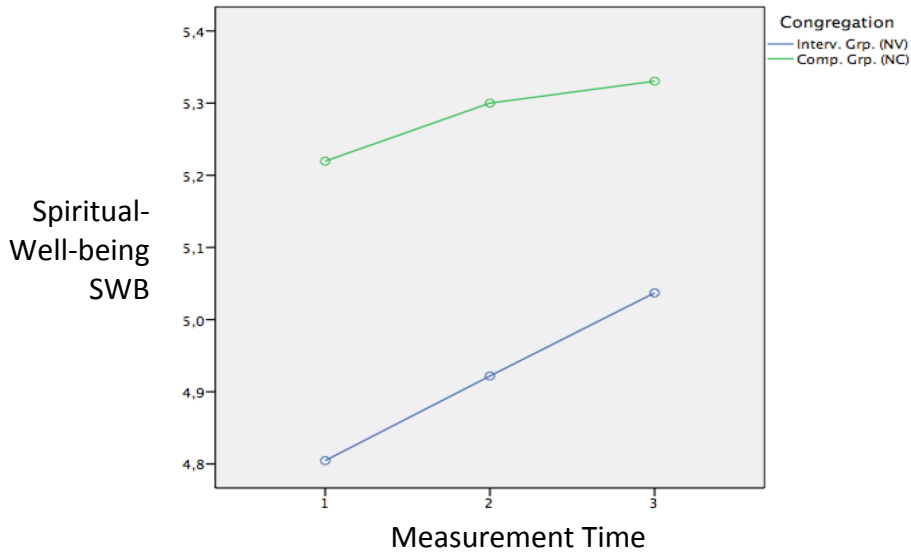


Figure 12. Profile plot of SWB group scores at T1, T2, and T3

The repeated-measures test of responses to the Daily Spiritual Experiences Scale (DSES) showed a significant effect of the change over time factor, $F(2, 104) = 8.26, p < .01, \eta^2 = .25$ but no time x group interaction (Table 21). As the time plots in Figure 13 illustrate, both groups showed significant within-subject changes between T1 and T3. However, the between-subjects effect remained non-significant, $F(2, 52) = .48, p = .49$. As expected, the gratitude campaign corresponded with a DSE increase in the intervention group. However, the comparison group showed a similar increase during the waiting period. Also, the steady DSE increase in this group does not appear to be affected by the gratitude campaign in this congregation. Based on these findings, the gratitude campaigns seemed to be effective but there is no compelling evidence that they had a unique influence on overall Daily Spiritual Experiences. A mixed-methods ANOVA was also computed for the one-item rating of participants' sense of Closeness to God, but no

significant effects were found. Given its limited range, this single-item rating may be less suitable to capture more subtle changes in day-to-day spiritual experiences.

Table 21

GLM with Change in Daily Spiritual Experiences between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comp. Group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|-----|------|-----|------|-----|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 4.81 | .71 | 4.92 | .67 | 5.04 | .66 |
| Comparison | 27 | 5.22 | .65 | 5.30 | .62 | 5.33 | .63 |
| Total | 54 | 5.01 | .71 | 5.11 | .66 | 5.18 | .65 |

| Multivariate Tests | | | | | | |
|--------------------|---------------|-------|------|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| DSE Change | Wilks' Lambda | .76 | 8.26 | 2 | <.01 | .25 |
| DSE Change x Grp. | Wilks' Lambda | .97 | .73 | 2 | .49 | .03 |

| Within-Subject Effects | | | | | | |
|------------------------|-------------|-----|-------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| DSE Change | 1.17 | 2 | 10.14 | 2 | <.01 | .16 |
| DSE Change x Grp. | .08 | 2 | .65 | 2 | .52 | .01 |
| Error | .12 | 104 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 3006.78 | 1 | 2341.49 | 1 | <.01 | .98 |
| Group (Congreg.) | .66 | 1 | .48 | 1 | .49 | .01 |
| Error | 1.37 | 52 | | | | |

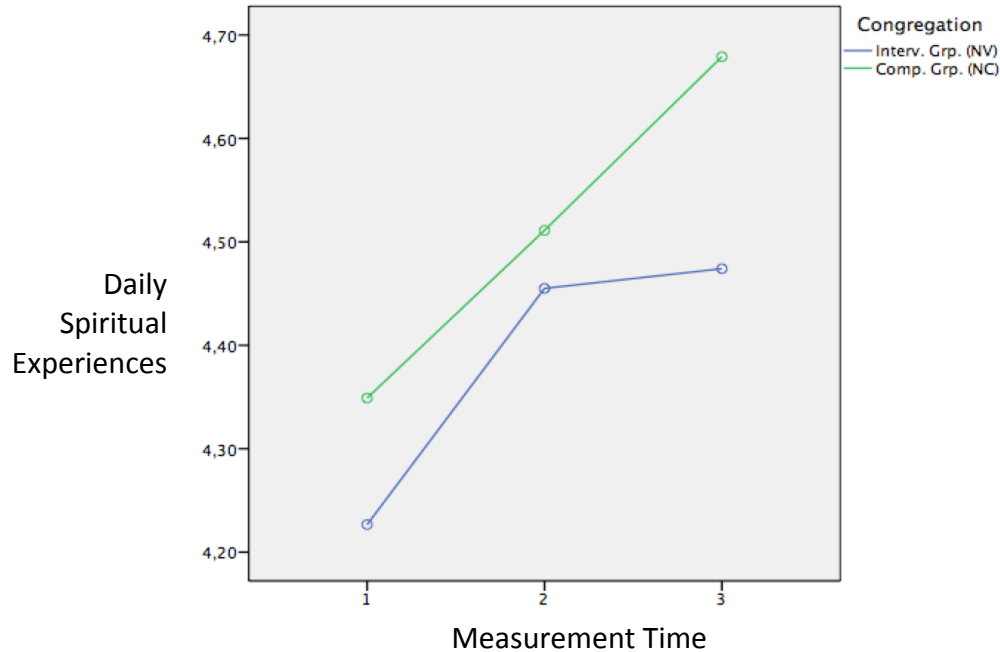


Figure 13. Profile plot of DSES group scores at T1, T2, and T3

Hypothesis 2

I hypothesized that the practice of gratefulness would help stimulate participants' interpersonal engagement inside and outside the congregation. The scores computed from the responses to the Supportive Presence Scale for the purpose of this study included the two potential areas of focus of interpersonal support (within vs. outside the congregation) and the two dimensions supportive attitude and supportive action resulting in the following four variables: (a) Supportive presence towards others within the congregation, (b) Supportive Presence towards others outside the congregation, (c) Seeing it as a priority to be a supportive presence to others, and (d) Actively being a supportive presence to others. For each of the four variables, a mixed-methods ANOVA was computed. All multivariate analyses remained non-significant, indicating that no noteworthy repeated measures changes or time x group interactions were present.

Significant group differences existed for three of the variables, “Supportive Presence Within Congregation”, $F(2, 52) = 7.83, p = .01, \eta^2 = .13$ (see Table 22 and Figure 14), “Supportive Presence Outside Congregation”, $F(2, 52) = 5.81, p = .02, \eta^2 = .10$ (see Table 23 and Figure 15) and “Supportive Presence Actions” $F(2, 52) = 15.27, p < .01, \eta^2 = .23$ (see Table 25 and Figure 15). The profile plots for these variables indicated consistent differences between the two groups in self-reported levels of supportive presence that were not related to the gratitude campaign. No significant effect was found for “Supportive Presence Attitude” $F(2, 52) = .54, p = .59$. (see Table 24 and Figure 16).

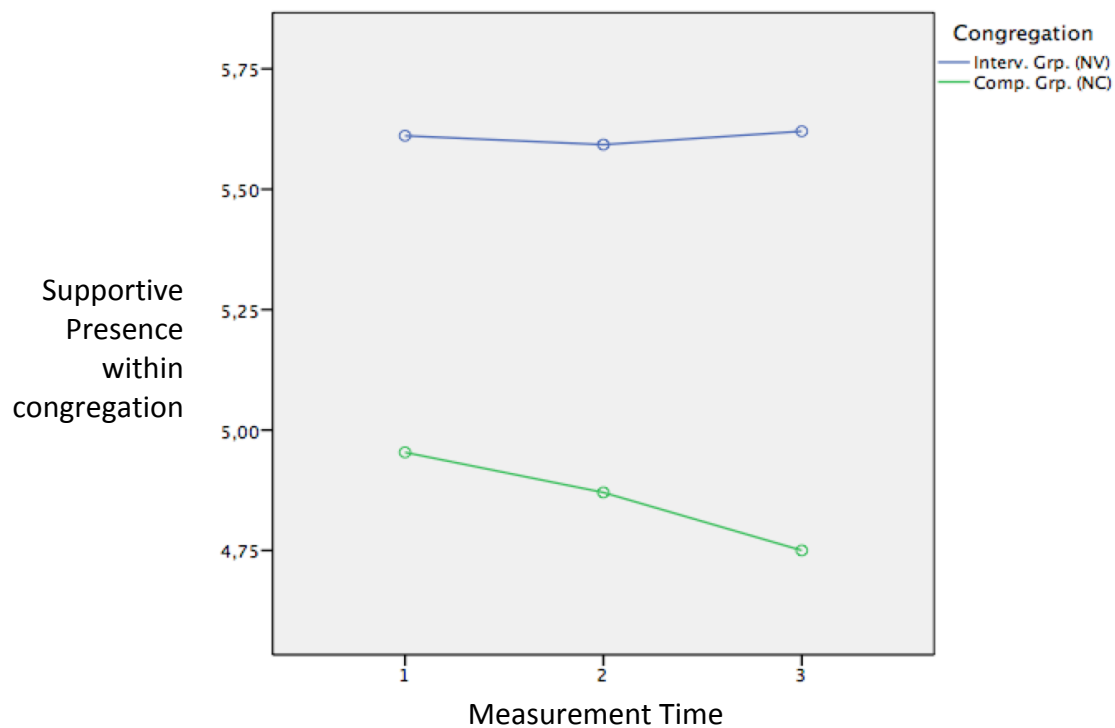


Figure 14. Profile plot of Supportive Presence within Congreg. group scores at T1, T2, and T3.

Table 22

GLM with Change in Supportive Presence within the Congregation between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comp. Group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|------|------|------|------|------|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 5.61 | .98 | 5.59 | .94 | 5.62 | 1.02 |
| Comparison | 27 | 4.95 | 1.11 | 4.87 | 1.15 | 4.75 | 1.24 |
| Total | 54 | 5.28 | 1.09 | 5.23 | 1.10 | 5.19 | 1.21 |

| Multivariate Tests | | | | | | |
|--------------------------|---------------|-------|-----|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| SUPR-IN Change | Wilks' Lambda | .98 | .46 | 2 | .63 | .02 |
| SUPR-IN Change x Grp. | Wilks' Lambda | .98 | .60 | 2 | .55 | .02 |

| Within-Subject Effects | | | | | | |
|--------------------------|-------------|-----|-----|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| SUPR-IN Change | .13 | 2 | .44 | 2 | .65 | .01 |
| SUPR-IN Change x Grp. | .16 | 2 | .55 | 2 | .58 | .01 |
| Error | .29 | 104 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 4436.30 | 1 | 1525.36 | 1 | <.01 | .97 |
| Group (Congreg.) | 22.78 | 1 | 7.83 | 1 | .01 | .13 |
| Error | 2.91 | 52 | | | | |

Table 23

GLM with Change in Supportive Presence Outside the Congregation between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comp. Group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|------|------|------|------|------|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 5.16 | .90 | 5.41 | 1.01 | 5.31 | .99 |
| Comparison | 27 | 5.41 | 1.02 | 4.84 | .94 | 4.62 | .94 |
| Total | 54 | 5.31 | .97 | 5.13 | 1.01 | 4.97 | 1.02 |

| Multivariate Tests | | | | | | | |
|-----------------------|---------------|-------|------|----|------|---------------|--|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. | |
| SUPR-OU Change | Wilks' Lambda | .94 | 1.77 | 2 | .18 | .07 | |
| SUPR-OU Change x Grp. | Wilks' Lambda | .97 | .74 | 2 | .48 | .03 | |

| Within-Subject Effects | | | | | | | |
|------------------------|-------------|-----|------|----|------|---------------|--|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. | |
| SUPR-OU Change | .51 | 2 | 1.65 | 2 | .20 | .03 | |
| SUPR-OU Change x Grp. | .26 | 2 | .82 | 2 | .44 | .02 | |
| Error | .31 | 104 | | | | | |

| Between-Subject Effects | | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|--|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. | |
| Intercept | 4071.70 | 1 | 1863.58 | 1 | <.01 | .97 | |
| Group (Congreg.) | 12.69 | 1 | 5.81 | 1 | .02 | .10 | |
| Error | 2.19 | 52 | | | | | |

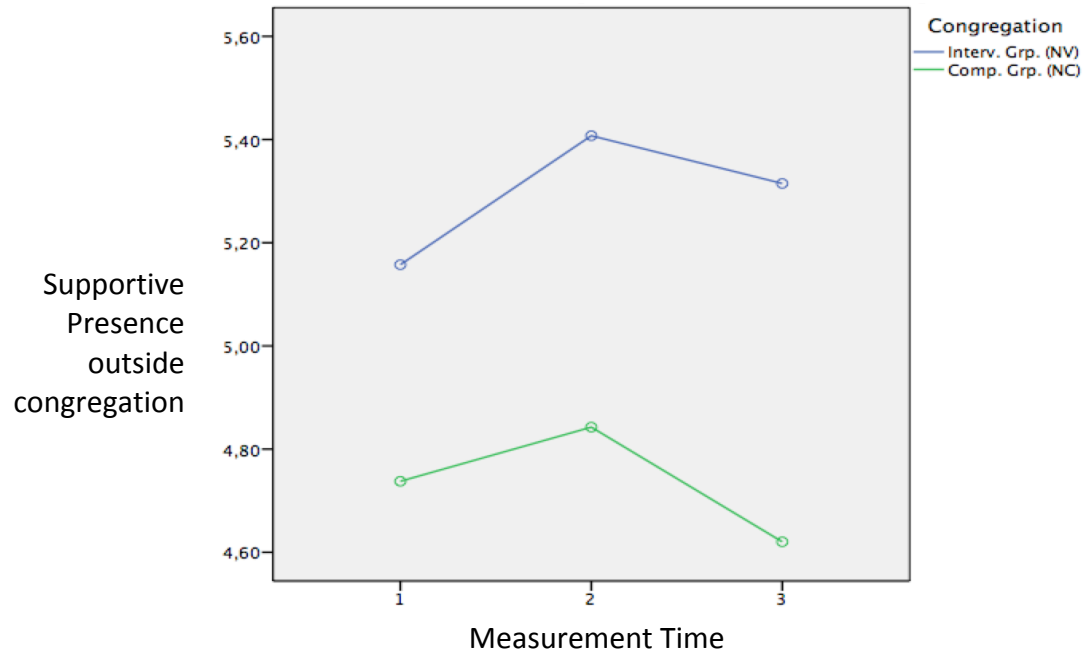


Figure 15. Profile plot of Supportive Presence outside Congreg. group scores at T1, T2, and T3.

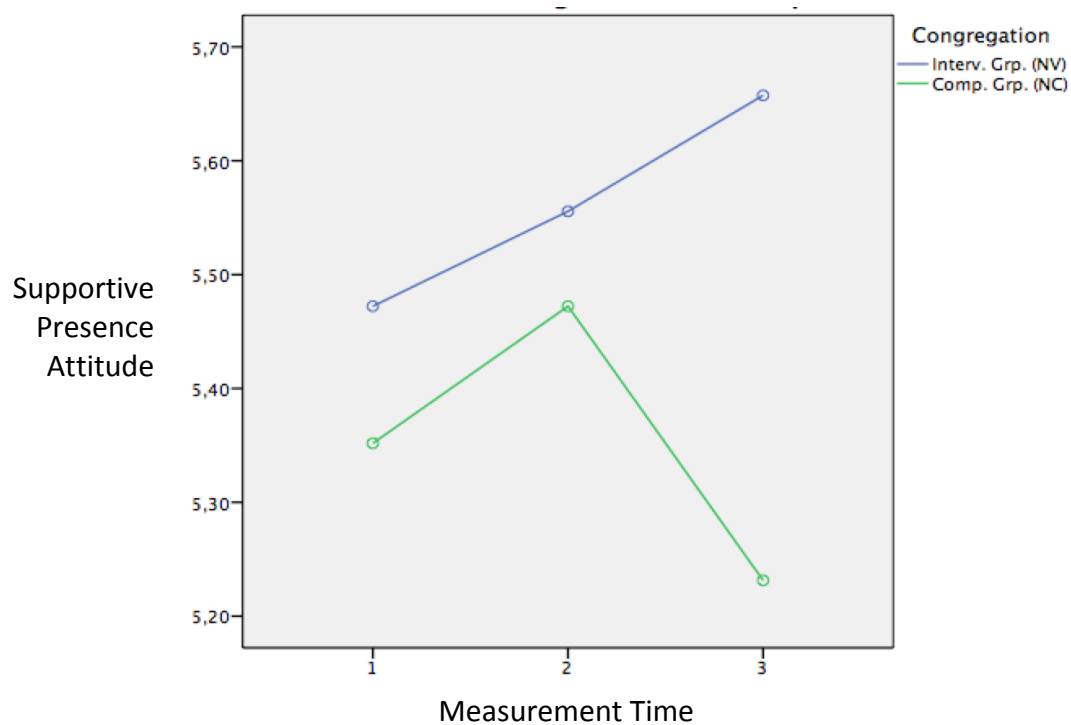


Figure 16. Profile plot of Supportive Presence Attitude group scores on T1, T2, and T3.

Table 24

GLM with Change in Supportive Presence Attitude between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comp. Group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|-----|------|-----|------|-----|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 5.47 | .76 | 5.56 | .84 | 5.66 | .91 |
| Comparison | 27 | 5.35 | .84 | 5.47 | .79 | 5.23 | .94 |
| Total | 54 | 5.41 | .80 | 5.51 | .81 | 5.23 | .94 |

| Multivariate Tests | | | | | | |
|-----------------------|---------------|-------|------|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| SUP-ATT Change | Wilks' Lambda | .98 | .54 | 2 | .59 | .02 |
| SUP-ATT Change x Grp. | Wilks' Lambda | .93 | 2.06 | 2 | .14 | .08 |

| Within-Subject Effects | | | | | | |
|------------------------|-------------|-----|------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| SUP-ATT Change | .03 | 2 | .10 | 2 | .76 | .00 |
| SUP-ATT Change x Grp. | .26 | 2 | 2.17 | 2 | .15 | .04 |
| Error | .31 | 104 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 4823.80 | 1 | 2951.14 | 1 | <.01 | .98 |
| Group (Congreg.) | 1.78 | 1 | 1.09 | 1 | .30 | .02 |
| Error | 1.64 | 52 | | | | |

Table 25

GLM with Change in Supportive Presence Actions between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comp. Group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|------|------|------|------|------|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 5.30 | .79 | 5.44 | .93 | 5.28 | 1.01 |
| Comparison | 27 | 4.35 | 1.36 | 4.24 | 1.40 | 4.14 | 1.28 |
| Total | 54 | 4.82 | 1.20 | 4.84 | 1.32 | 4.71 | 1.28 |

| Multivariate Tests | | | | | | | |
|-----------------------|---------------|-------|-----|----|------|---------------|--|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. | |
| SUP-ACT Change | Wilks' Lambda | .98 | .65 | 2 | .53 | .03 | |
| SUP-ACT Change x Grp. | Wilks' Lambda | .97 | .73 | 2 | .49 | .03 | |

| Within-Subject Effects | | | | | | | |
|------------------------|-------------|-----|-----|----|------|---------------|--|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. | |
| SUP-ACT Change | .29 | 2 | .73 | 2 | .48 | .01 | |
| SUP-ACT Change x Grp. | .25 | 2 | .63 | 2 | .53 | .01 | |
| Error | .39 | 104 | | | | | |

| Between-Subject Effects | | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|--|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. | |
| Intercept | 3719.53 | 1 | 1168.13 | 1 | <.01 | .96 | |
| Group (Congreg.) | 48.62 | 1 | 15.27 | 1 | <.01 | .23 | |
| Error | 165.58 | 52 | | | | | |

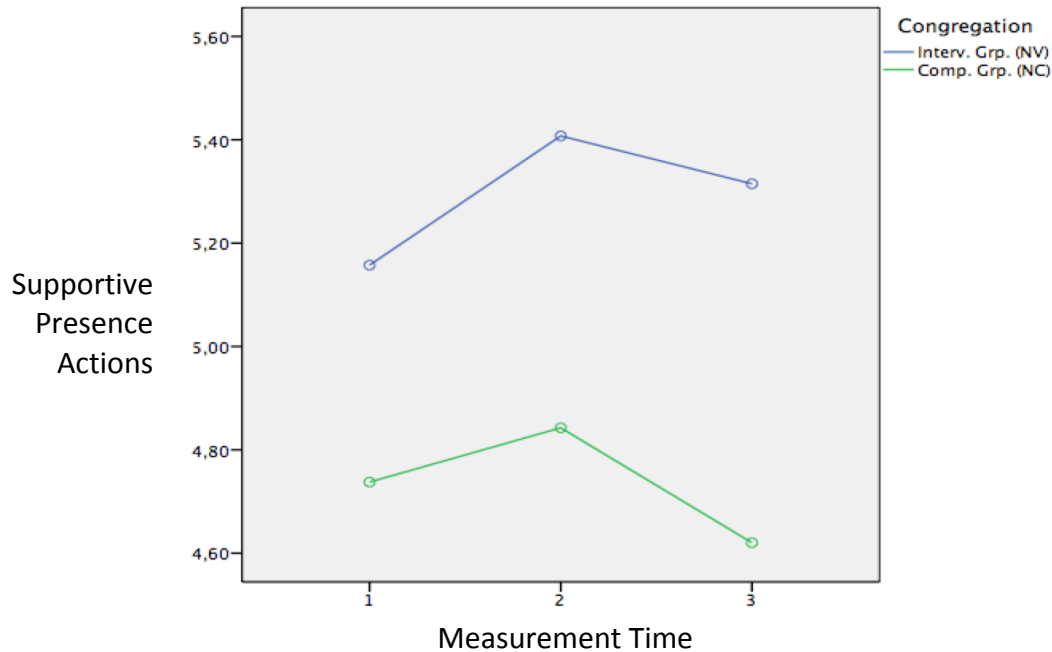


Figure 17. Profile plot of Supportive Presence Actions group scores on T1, T2, and T3.

Hypothesis 3

I expected that participants' views on psychology would be more favorable after the intervention than before. Multivariate tests revealed no significant effects but noteworthy trends for changes over time, $F(2, 104) = 2.55, p = .09, \eta^2 = .09$ and time x group interaction, $F(2, 104) = 2.72, p = .08, \eta^2 = .10$ (see Table 26). The plotted profiles of both groups match the predicted pattern (Figure 18). In both, the intervention and the comparison groups, views on psychology and collaboration with psychologists became more favorable between T1 and T3. The largest increases occurred during the respective gratitude ministry phases.

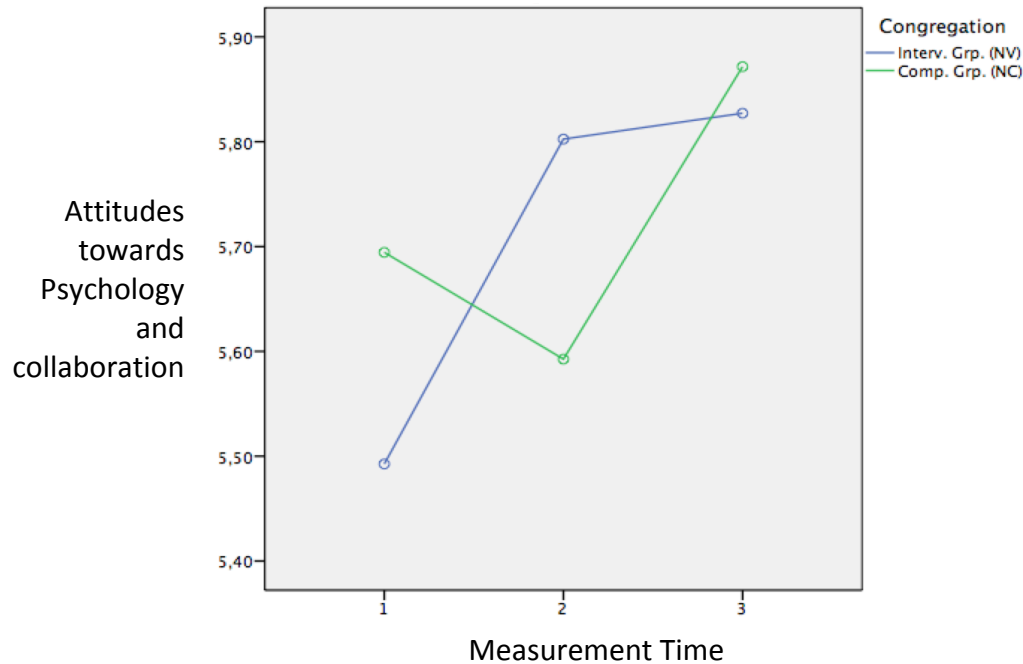


Figure 18. Profile plot of Attitude towards Psychology group scores at T1, T2, and T3.

All-Congregation Ratings

Due to inconsistent attendance only 16 members of the congregation that served as intervention group and 22 members of the comparison group completed the brief surveys at all three measurement times. Table 26 and Figure 18 show the findings for the aggregated gratefulness ratings. Table 27 and Figure 19 contain findings from a 1-item self-rating of distress. The plotted profiles of both ratings in the intervention group match the predicted pattern. However, multivariate tests for the Sunday service gratefulness ratings showed no significant group effect $F(2, 36) = 1.13, p = .34$ or time x group interaction, $F(2, 36) = 1.37, p = .27$. The multivariate test for the distress rating revealed a group trend $F(2, 36) = 1.87, p = .07, \eta^2 = .14$. The within-subjects effect was significant $F(2, 72) = 3.22, p = .05, \eta^2 = .08$, but not the between-subjects effect.

Table 26

GLM with Change in Attitude towards Psychology between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comp. Group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|------|-----|------|-----|------|------|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 27 | 5.49 | .83 | 5.80 | .91 | 5.83 | .86 |
| Comparison | 27 | 5.69 | .87 | 5.59 | .92 | 5.87 | 1.01 |
| Total | 54 | 5.59 | .85 | 5.70 | .91 | 5.85 | .93 |

| Multivariate Tests | | | | | | |
|-----------------------|---------------|-------|------|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| ATT-PSY Change | Wilks' Lambda | .98 | 2.55 | 2 | .09 | .09 |
| ATT-PSY Change x Grp. | Wilks' Lambda | .90 | 2.72 | 2 | .08 | .10 |

| Within-Subject Effects | | | | | | |
|------------------------|-------------|-----|------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| ATT-PSY Change | .89 | 2 | 3.24 | 2 | .04 | .06 |
| ATT-PSY Change x Grp. | .58 | 2 | 2.11 | 2 | .13 | .04 |
| Error | .28 | 104 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 5288.30 | 1 | 2769.59 | 1 | <.01 | .98 |
| Group (Congreg.) | .01 | 1 | .00 | 1 | .96 | .00 |
| Error | 1.89 | 52 | | | | |

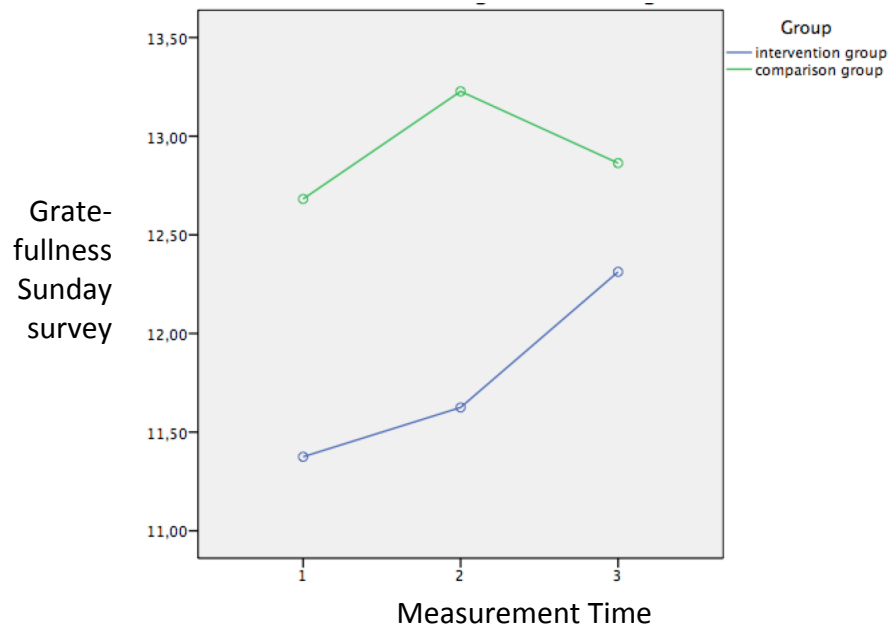


Figure 19. Profile plot of Sunday survey Gratefulness group scores at T1, T2, and T3.

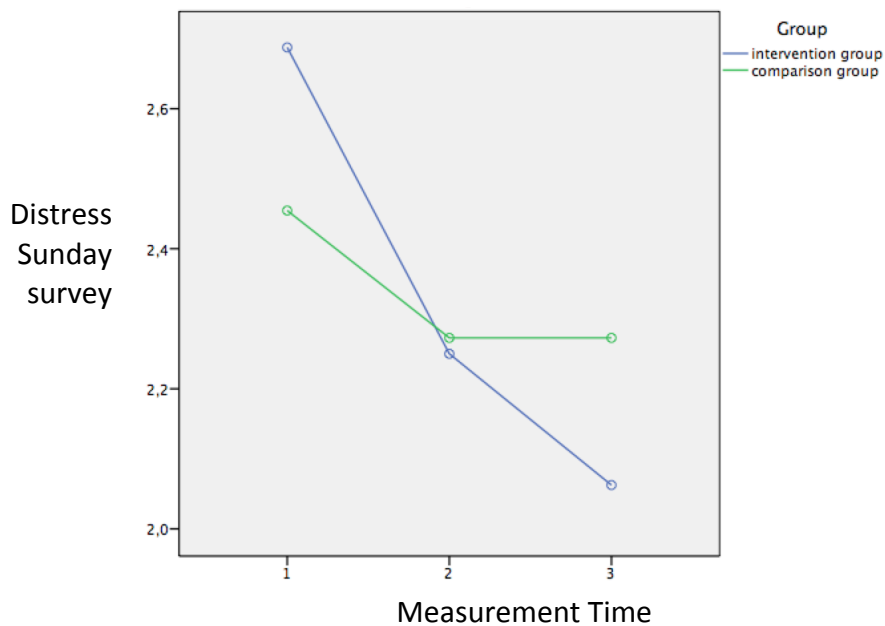


Figure 20. Profile plot of Sunday survey Distress group scores at T1, T2, and T3.

Table 27

GLM with Change in Gratefulness (Sunday Survey) T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comp. Group) as Between-Subjects Factor

| Group | N | T1 | | T2 | | T3 | |
|--------------|----|-------|------|-------|------|-------|------|
| | | Mean | SD | Mean | SD | Mean | SD |
| Intervention | 16 | 11.38 | 2.36 | 11.63 | 1.96 | 12.31 | 1.85 |
| Comparison | 22 | 12.68 | 2.87 | 13.23 | 2.27 | 12.86 | 2.03 |
| Total | 38 | 12.13 | 2.71 | 12.55 | 2.26 | 12.63 | 1.95 |

| Multivariate Tests | | | | | | |
|-------------------------|---------------|-------|------|----|------|---------------|
| Effects | | Value | F | df | Sig. | Part. Eta-Sq. |
| GR-Survey Change | Wilks' Lambda | .94 | 1.13 | 2 | .34 | .06 |
| GR-Survey Change x Grp. | Wilks' Lambda | .93 | 1.37 | 2 | .27 | .07 |

| Within-Subject Effects | | | | | | |
|-------------------------|-------------|----|------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| GR-Survey Change | 5.83 | 2 | 2.32 | 2 | .48 | .06 |
| GR-Survey Change x Grp. | 2.65 | 2 | 1.06 | 2 | .53 | .03 |
| Error | 2.50 | 36 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|----|---------|----|------|---------------|
| Source | Mean Square | df | F | df | Sig. | Part. Eta-Sq. |
| Intercept | 16,947.32 | 1 | 1603.71 | 1 | <.01 | .98 |
| Group (Congreg.) | 36.97 | 1 | 3.5 | 1 | .70 | .09 |
| Error | 10.57 | 36 | | | | |

Table 28

GLM with Change in Distress (Sunday Survey) between T1 and T3 as Within Subjects Factor and Congregation (Intervention vs. Comp. Group) as Between-Subjects Ffactor

| Group | N | T1 | | T2 | | T3 | |
|--------------------|----|------|------|------|------|------|------|
| | | Mean | STD | Mean | STD | Mean | STD |
| Intervention Group | 16 | 2.69 | 1.16 | 2.25 | .77 | 2.06 | .68 |
| Comparison Group | 22 | 2.46 | 1.22 | 2.27 | 1.20 | 2.27 | 1.03 |
| Total | 38 | 2.55 | 1.20 | 2.26 | 1.03 | 2.18 | .90 |

| Multivariate Tests | | | | | | |
|------------------------|---------------|-------|----------|-----------|------|---------------|
| Effects | | Value | <i>F</i> | <i>df</i> | Sig. | Part. Eta-Sq. |
| Distress Change | Wilks' Lambda | .86 | 2.82 | 2 | .07 | .14 |
| Distress Change x Grp. | Wilks' Lambda | .96 | .75 | 2 | .48 | .04 |

| Within-Subject Effects | | | | | | |
|------------------------|-------------|-----------|----------|-----------|------|---------------|
| Source | Mean Square | <i>df</i> | <i>F</i> | <i>df</i> | Sig. | Part. Eta-Sq. |
| Distress Change | 1.65 | 2 | 3.22 | 2 | .05 | .08 |
| Distress Change x Grp. | .46 | 2 | .90 | 2 | .41 | .02 |
| Error | .51 | 72 | | | | |

| Between-Subject Effects | | | | | | |
|-------------------------|-------------|-----------|----------|-----------|------|---------------|
| Source | Mean Square | <i>df</i> | <i>F</i> | <i>df</i> | Sig. | Part. Eta-Sq. |
| Intercept | 605.19 | 1 | 257.33 | 1 | <.01 | .88 |
| Group (Congreg.) | .00 | 1 | .00 | 1 | 1.00 | .00 |
| Error | 2.35 | 36 | | | | |

Chapter 4

Discussion

To my knowledge this is the first quasi-experimental study to examine the effects of a gratitude intervention in the context of a Christian faith community. The first goal was to establish a platform for interdisciplinary dialogue and collaboration between positive psychology and the Christian community. I used an integrative lens in conceptualizing gratitude as a means of spiritual formation, and in identifying eudaimonic happiness as the psychological manifestation of this process. While well aware that such cross-disciplinary broad-brush definitions are objectionable to psychologists and theologians alike and tend to provoke quick rebuttals, I proposed this merely as a tentative working-model for the purpose of this study.

The second goal was to collaborate with church leaders in developing a strategy to promote gratefulness among Christian believers. This project is unique in that, while providing resources and consultation, it intentionally sought to give church leaders a maximum degree of control over the intervention. This approach necessitated a number of difficult choices that imposed significant methodological limitations at every level. During the recruiting phase finding church leaders who were willing to commit to this unusual project had to take precedence over many other considerations that typically guide decision-making in research. The decision to assign participants to intervention and comparison groups along congregational lines introduced error variance due to factors beyond demographics that make up the unique character of a congregation such as differences in theology, organizational dynamics or simply current

circumstances. During the design phase, allowing church leaders to take full ownership of the project required relinquishing most of the details that would be important to control in an experimental study. This resulted in a rather opaque intervention phase that provided very limited information about what participants actually did and how seriously they invested themselves into the various proposed grateful practice activities. Finally, the lack of control over the details of the intervention leaves many open questions when it comes to interpreting even statistically significant results, let alone evaluating hypotheses in the absence of clear findings. In spite of the challenges they present, limitations such as these are not uncommon in field experimental research. In some ways, this study bears characteristics of an encouragement design, a research design that “randomly encourages some people and not others to engage with the treatment, and then measures reactions within the entire sample of encouraged vs. not-encouraged people” (Paluck & Cialdini, 2014, p. 88).

The third goal of this study was to replicate some of the well-established effects of gratitude on parameters of subjective wellbeing within the context of a Christian faith community. In addition to life satisfaction and affective wellbeing, it included religious experiences, religious wellbeing, interpersonal engagement, and participants’ perceptions of psychology and interdisciplinary collaboration. Based on previous research I hypothesized that the 4-week gratefulness campaign in the congregation assigned to the intervention condition would lead to statistically significant benefits in all of these areas. In contrast, the second congregation that functioned as a comparison group should not have manifested any significant changes on outcome measures over the same 4-week period. No specific expectations were formulated for the second 4-week period. Experimental gratitude studies have found that some

benefits outlasted the intervention or even showed a delayed onset. Therefore, effects in the intervention group could decline, remain stable, or even continue to increase. Although no predictions were made for the comparison group, a noticeable benefit from the gratefulness campaign could certainly be interpreted as evidence supporting the overall effectiveness of the design. However, since the design included two independently developed and dissimilar gratitude campaigns, it is not possible to make across-group inferences. In particular, one cannot question the effects of the gratitude campaign found in one congregation based on the lack of a similar effect in the other congregation.

Considering the results with this rationale in mind, the effects found in this study provided mixed support to my hypotheses (Table 29 provides an overview of the findings). Overall, the gratefulness campaign in the intervention group seemed to have a moderate positive effect on eudaimonic happiness. The PWB increases are significant and changes match the predicted pattern. I also found significant differences in the predicted direction for the PWB-facet scales Self-acceptance and Personal Growth as well as trends for Environmental Mastery and, albeit weakly, for Positive Relations. This outcome provides some support to the findings from Wood et al.'s (2009) hierarchical regression model in which gratitude predicted four of the six eudaimonic happiness dimensions measured by the PWB. The two discrepancies are Environmental Mastery, which did not emerge as a significant predictor in Wood et al.'s study and Purpose in Life, which was included in their regression model but is not well supported by my findings. Participants of the intervention group also reported significant benefits in Satisfaction with life and in affect quality. Increases in positive affect continued over the four weeks following the intervention, whereas the significant changes in negative affect and

Satisfaction with life reversed after the end of the gratefulness campaign. Gratitude was also associated with increases in Spiritual Wellbeing SWB and Daily Spiritual Experiences DSE among participants of the intervention group. For SWB the beneficial effects seemed to continue during the month following the gratitude intervention. With the exception of PWB and Negative

Table 29

Summary of Findings

| | Pattern matches | Significant change | Trend |
|----------------------------------|-----------------|--------------------|-------|
| Hypothesis 1 | | | |
| Psychological Well-Being PWB | YES | YES | |
| PWB-Self acceptance | NO | YES | |
| PWB-Personal Growth | YES | YES | |
| PWB-Environmental mastery | YES | NO | |
| PWB-Positive relations | YES | NO | YES |
| PWB-Autonomy | NO | NO | |
| PWB-Purpose in Life | NO | NO | |
| Positive Affect | NO | YES | |
| Negative Affect | YES | YES | |
| Satisfaction with Life SWLS | NO | YES | |
| Spiritual Well-Being SWB | NO | YES | |
| Daily Spiritual Experiences DSE | NO | YES | |
| Hypothesis 2 | | | |
| Supportive presence | NO | NO | |
| Hypothesis 3 | | | |
| Attitude to psych./collaboration | YES | NO | YES |

affect the findings from the comparison group are less clear and do not provide the expected corroborating evidence. Therefore, the positive effects of gratitude on SWB and DSE are not as well supported as those on PWB.

Contrary to my prediction, the gratefulness campaign did not have any effect on the measures of supportive presence toward others, neither within nor outside the congregation. The lack of at least a subtle benefit echoes the weak effect found for PWB-Positive Relations. This is surprising given the undeniable social implications of gratitude and the powerful positive impact that is usually associated with the interpersonal expression of gratitude. There are several conceivable ways to account for this. It may well be that the participants of this study overwhelmingly chose to focus on the more intra-individual or spiritual facets of gratitude by engaging in activities such as a grateful journaling or giving thanks to God in prayer. It is also conceivable that there are powerful habits at work that are effectively hampering a more generous and perhaps unconventional expression of gratitude toward others. It might take the external impetus of clear directions to overcome the lethargy of these interpersonal routines.

Regardless of its effects on wellbeing, this research project appeared to have a significant positive impact on participants' perception of psychology and interdisciplinary collaboration. This change was found in participants from both congregations and occurred mostly during their respective 4-week gratefulness campaigns. Presumably, the exposure to the provided resources and perhaps the practice of gratefulness itself resulted in an appreciative attitude towards the psychologists who have made gratitude the focus of their work.

This study with its theoretical and methodological shortcomings illustrates the complexity of collaborative psychological research in the context of church communities. Its

usefulness in promoting the science of gratitude will certainly be limited. There are many caveats to be considered in evaluating this project. Many of the instruments used to measure the effects of intervention are known to be susceptible to ceiling effects, particularly in samples of Evangelical Christians. The restricted ranges of scores clustering at the upper end of the scale necessarily limit this sensitivity to detect subtle effects. The power of statistical methods is also affected by the small sample size. Furthermore, it would certainly be ignorant to assume that gratefulness is the result of a psychological intervention. Religious people are often grateful people and the potential of a gratitude campaign to bring about significant effects may be rather limited. In other cases, the potential of an intervention to bring about significant change is inhibited by participant's lack of readiness. This criterion, which is regularly assessed in clinical settings, may also play a significant role in limiting effects of research interventions, particularly in studies where natural groups as a whole are recruited.

Several suggestions for further research can be offered. First, the designing of a gratitude intervention that is comparable across different settings would require a more intensive process of collaboration during the design stage. It may also be useful create a team of group facilitators trained by the researchers in collaboration with pastoral leaders in order to insure the quality and integrity of the intervention.

Second, it is very difficult to isolate the effect of a gratitude intervention in the context of the ministry of a church where personal testimonies, the experience of nurturing relationships, or simply the singing of a hymn can give rise to moments of intense gratefulness in the absence of any specific exercise to promote it. However, in order to at least reduce the inevitable systematic

interferences, future studies may want to recruit intervention and comparison groups from one larger congregation rather than using groups from different congregations.

Third, the collaboration model used in this study was based on the recognition that the leaders of the participating congregations bring their own expertise to bear and can be expected to know best how to communicate the benefits of gratitude to their church members. Underlying this approach is the principle of true eye-level communication in a deliberate effort to counteract the common perception of psychology as being a domineering and patronizing partner in the dialogue with the church. As a result, the consultation component was limited to providing educational resources and the quasi-experimental design structure of the project. Future research may find a way to carry this dialogue further to a point where it opens the door to a process of more intentional program development informed by sound theology and psychological research. This might require a much more sustained effort to create a culture of mutual respect, curiosity, and creative cross-fertilization at the local or regional level.

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Appendix A**Questionnaires****Positive and Negative Affect Scale (PANAS)**

This scale consists of a number of words and phrases that describe different feelings and emotions.

Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you have felt this way during the past 7 days.

Use the following scale to record your answers:

| | | | | |
|--------------------------------|----------|------------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| very slightly or not at all | a little | moderately | quite a bit | extremely |

| | | | |
|-------------------------|-------------------------|---------------------------|---------------------------|
| _____ active | _____ guilty | _____ enthusiastic | _____ attentive |
| _____ afraid | _____ thankful | _____ nervous | _____ distressed |
| _____ excited | _____ determined | _____ strong | _____ grateful |
| _____ hostile | _____ proud | _____ alert | _____ jittery |
| _____ interested | _____ irritable | _____ upset | _____ appreciative |
| _____ ashamed | _____ inspired | _____ scared | |

GRAT-S

Please provide your honest feelings and beliefs about the following statements which relate to you. There are no right or wrong answers to these statements. We would like to know how much you feel these statements are true or not true of you. Please try to indicate your true feelings and beliefs, as opposed to what you would like to believe. Respond to the following statements by circling the number that best represents your real feelings. Please use the scale provided below, and please choose one number for each statement (i.e. don't circle the space between two numbers), and record your choice in the blank preceding each statement.

- | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------------------------|---|------------------------|---|---------------------------------------|---|--------------------------------------|---|--|
| I strongly disagree | | I disagree somewhat | | I feel neutral about the statement | | I mostly agree with the statement | | I strongly agree with the statement |
| _____ 1. | | | | | | | | I couldn't have gotten where I am today without the help of many people. |
| _____ 2. | | | | | | | | Life has been good to me. |
| _____ 3. | | | | | | | | There never seems to be enough to go around and I never seem to get my share. |
| _____ 4. | | | | | | | | Oftentimes I have been overwhelmed at the beauty of nature. |
| _____ 5. | | | | | | | | Although I think it's important to feel good about your accomplishments, I think that it's also important to remember how others have contributed to my accomplishments. |
| _____ 6. | | | | | | | | I really don't think that I've gotten all the good things that I deserve in life. |
| _____ 7. | | | | | | | | Every Fall I really enjoy watching the leaves change colors. |
| _____ 8. | | | | | | | | Although I'm basically in control of my life, I can't help but think about all those who have supported me and helped me along the way. |
| _____ 9. | | | | | | | | I think that it's important to "Stop and smell the roses." |
| _____ 10. | | | | | | | | More bad things have happened to me in my life than I deserve. |
| _____ 11. | | | | | | | | Because of what I've gone through in my life, I really feel like the world owes me something. |
| _____ 12. | | | | | | | | I think that it's important to pause often to "count my blessings." |
| _____ 13. | | | | | | | | I think it's important to enjoy the simple things in life. |
| _____ 14. | | | | | | | | I feel deeply appreciative for the things others have done for me in my life. |
| _____ 15. | | | | | | | | For some reason I never seem to get the advantages that others get. |
| _____ 16. | | | | | | | | I think it's important to appreciate each day that you are alive. |

SWLS

Below are five statements with which you may agree or disagree. Using the scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

- 1 = Strongly disagree
- 2 = Disagree
- 3 = Slightly disagree
- 4 = Neither agree nor disagree
- 5 = Slightly agree
- 6 = Agree
- 7 = Strongly agree

- _____ 1. In most ways my life is close to my ideal.
- _____ 2. The conditions of my life are excellent.
- _____ 3. I am satisfied with my life.
- _____ 4. So far I have gotten the important things I want in life.
- _____ 5. If I could live my life over, I would change almost nothing.

Psychological Well-Being Scales (PWB)

Please indicate your degree of agreement to the following sentences using a score ranging from 1 “strongly disagree” to 6 “strongly agree”).

| | Strongly disagree | | | | | Strongly agree |
|---|----------------------|---|---|---|---|-------------------|
| 1. I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people. | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. In general, I feel I am in charge of the situation in which I live. | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. I am not interested in activities that will expand my horizons. | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. Most people see me as loving and affectionate. | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. I live life one day at a time and don't really think about the future. | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. When I look at the story of my life, I am pleased with how things have turned out. | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. My decisions are not usually influenced by what everyone else is doing. | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. The demands of everyday life often get me down. | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. I think it is important to have new experiences that challenge how you think about yourself and the world. | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. Maintaining close relationships has been difficult and frustrating for me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 11. I have a sense of direction and purpose in life. | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. In general, I feel confident and positive about myself. | 1 | 2 | 3 | 4 | 5 | 6 |
| 13. I tend to worry about what other people think of me | 1 | 2 | 3 | 4 | 5 | 6 |
| 14. I do not fit very well with the people and the community around me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 15. When I think about it, I haven't really improved much as a person over the years. | 1 | 2 | 3 | 4 | 5 | 6 |
| 16. I often feel lonely because I have few close friends with whom | 1 | 2 | 3 | 4 | 5 | 6 |

| | | | | | | |
|--|---|---|---|---|---|---|
| to share my concerns. | | | | | | |
| 17. My daily activities often seem trivial and unimportant to me | 1 | 2 | 3 | 4 | 5 | 6 |
| 18. I feel like many of the people I know have gotten more out of life than I have. | 1 | 2 | 3 | 4 | 5 | 6 |
| 19. I tend to be influenced by people with strong opinions. | 1 | 2 | 3 | 4 | 5 | 6 |
| 20. I am quite good at managing the many responsibilities of my daily life. | 1 | 2 | 3 | 4 | 5 | 6 |
| 21. I have the sense that I have developed a lot as a person over time. | 1 | 2 | 3 | 4 | 5 | 6 |
| 22. I enjoy personal and mutual conversations with family members or friends. | 1 | 2 | 3 | 4 | 5 | 6 |
| 23. I don't have a good sense of what it is I'm trying to accomplish in life. | 1 | 2 | 3 | 4 | 5 | 6 |
| 24. I like most aspects of my personality. | 1 | 2 | 3 | 4 | 5 | 6 |
| 25. I have confidence in my opinions, even if they are contrary to the general consensus. | 1 | 2 | 3 | 4 | 5 | 6 |
| 26. I often feel overwhelmed by my responsibilities | 1 | 2 | 3 | 4 | 5 | 6 |
| 27. I do not enjoy being in new situations that require me to change my old familiar ways of doing things. | 1 | 2 | 3 | 4 | 5 | 6 |
| 28. People would describe me as a giving person, willing to share my time with others. | 1 | 2 | 3 | 4 | 5 | 6 |
| 29. I enjoy making plans for the future and working to make them a reality. | 1 | 2 | 3 | 4 | 5 | 6 |
| 30. In many ways, I feel disappointed about my achievements in life. | 1 | 2 | 3 | 4 | 5 | 6 |
| 31. It's difficult for me to voice my own opinions on controversial matters. | 1 | 2 | 3 | 4 | 5 | 6 |
| 32. I have difficulty arranging my life in a way that is satisfying to | 1 | 2 | 3 | 4 | 5 | 6 |

| | | | | | | |
|---|---|---|---|---|---|---|
| me. | | | | | | |
| 33. For me, life has been a continuous process of learning, changing, and growth. | 1 | 2 | 3 | 4 | 5 | 6 |
| 34. I have not experienced many warm and trusting relationships with others. | 1 | 2 | 3 | 4 | 5 | 6 |
| 35. Some people wander aimlessly through life, but I am not one of them. | 1 | 2 | 3 | 4 | 5 | 6 |
| 36. My attitude about myself is probably not as positive as most people feel about themselves. | 1 | 2 | 3 | 4 | 5 | 6 |
| 37. I judge myself by what I think is important, not by the values of what others think is important. | 1 | 2 | 3 | 4 | 5 | 6 |
| 38. I have been able to build a home and a lifestyle for myself that is much to my liking. | 1 | 2 | 3 | 4 | 5 | 6 |
| 39. I gave up trying to make big improvements or changes in my life a long time ago. | 1 | 2 | 3 | 4 | 5 | 6 |
| 40. I know that I can trust my friends, and they know they can trust me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 41. I sometimes feel as if I've done all there is to do in life. | 1 | 2 | 3 | 4 | 5 | 6 |
| 42. When I compare myself to friends and acquaintances, it makes me feel good about who I am. | 1 | 2 | 3 | 4 | 5 | 6 |

SWB Scale

For each of the following statements, circle the choice that indicates the extent of your agreement or disagreement as it describes your personal experience:

SA = strongly agree D = disagree
 MA = moderately agree MD = moderately disagree
 A = agree SD = strongly disagree

- | | | | | | | |
|--|----|----|---|---|----|----|
| 1. I don't find much satisfaction in private prayer with God. | SA | MA | A | D | MD | SD |
| 2. I don't know who I am, where I came from, or where I am going. | SA | MA | A | D | MD | SD |
| 3. I believe that God loves me and cares about me. | SA | MA | A | D | MD | SD |
| 4. I feel that life is a positive experience. | SA | MA | A | D | MD | SD |
| 5. I believe that God is impersonal and not interested in my daily situations. | SA | MA | A | D | MD | SD |
| 6. I feel unsettled about my future. | SA | MA | A | D | MD | SD |
| 7. I have a personally meaningful relationship with God. | SA | MA | A | D | MD | SD |
| 8. I feel very fulfilled and satisfied with life. | SA | MA | A | D | MD | SD |
| 9. I don't get much personal strength and support from my God. | SA | MA | A | D | MD | SD |
| 10. I feel a sense of well-being about the direction my life is headed in. | SA | MA | A | D | MD | SD |
| 11. I believe that God is concerned about my problems. | SA | MA | A | D | MD | SD |
| 12. I don't enjoy much about life. | SA | MA | A | D | MD | SD |
| 13. I don't have a personally satisfying relationship with God. | SA | MA | A | D | MD | SD |
| 14. I feel good about my future. | SA | MA | A | D | MD | SD |
| 15. My relationship with God helps me not to feel lonely. | SA | MA | A | D | MD | SD |

- | | | | | | | |
|---|----|----|---|---|----|----|
| 16. I feel that life is full of conflict and unhappiness. | SA | MA | A | D | MD | SD |
| 17. I feel most fulfilled when I'm in close communion with God. | SA | MA | A | D | MD | SD |
| 18. Life doesn't have much meaning. | SA | MA | A | D | MD | SD |
| 19. My relationship with God contributes to my sense of well-being. | SA | MA | A | D | MD | SD |
| 20. I believe there is some real purpose for my life. | SA | MA | A | D | MD | SD |

Daily Spiritual Experiences Scale (DSES)

Instructions: The list that follows includes items you may or may not experience. Please consider how often you directly have this experience, and try to disregard whether you feel you should or should not have these experiences. A number of items use the word “God.” If this word is not a comfortable one for you, please substitute another idea which calls to mind the divine or holy for you.

| | | Many times a day | Every day | Most days | Some days | Once in a while | Never or almost never |
|-----|--|------------------------|--------------|--------------|--------------|-----------------------|--------------------------------|
| 1. | I feel God’s presence. | | | | | | |
| 2. | I experience a connection to all life. | | | | | | |
| 3. | During worship, or at other times when connecting with God, I feel joy, which lifts me out of my daily concerns. | | | | | | |
| 4. | I find strength in my religion or spirituality. | | | | | | |
| 5. | I find comfort in my religion or spirituality. | | | | | | |
| 6. | I feel deep inner peace or harmony. | | | | | | |
| 7. | I ask for God’s help in the midst of daily activities. | | | | | | |
| 8. | I feel guided by God in the midst of daily activities. | | | | | | |
| 9. | I feel God’s love for me, directly. | | | | | | |
| 10. | I feel God’s love for me, through others. | | | | | | |
| 11. | I am spiritually touched by the beauty of creation. | | | | | | |
| 12. | I feel thankful for my blessings. | | | | | | |
| 13. | I feel a selfless caring for others. | | | | | | |
| 14. | I accept others even when they do things I think are wrong. | | | | | | |
| 15. | I desire to be closer to God or in union with the divine. | | | | | | |

16. In general, how close do you feel to God?

| | | | |
|-----------|----------------|------------|----------------------|
| 1 | 2 | 3 | 4 |
| Not close | Somewhat close | Very close | As close as possible |

Supportive Presence Scale

Please respond to the following questions related to your presence in the lives of others who are NOT in your immediate family.

| | Not at All | | | Some- what | | | A Great Deal |
|---|---------------|---|---|---------------|---|---|--------------------|
| 1. Meeting the needs of others in my congregation is a high priority to me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Meeting the needs of others outside my congregation is a high priority to me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. In the past month I have gone out of my way to help others in my congregation | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| If so, please give example: | | | | | | | |
| 4. In the past month I have gone out of my way to help others outside my congregation | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| If so, please give example: | | | | | | | |
| 5. It is important to me to provide emotional support to those in my congregation | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. It is important to me to provide emotional support to those outside my congregation | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. In the past month I have provided emotional support to those in my congregation | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| If so, please give example: | | | | | | | |
| 8. In the past month I have provided emotional support to those outside my congregation | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| If so, please give example: | | | | | | | |

*Social Desirability Scale***(TITLE OMITTED ON FORMS)***Please respond to the following statements by circling either true or false.*

| | | |
|--|-------------|--------------|
| 1. It is sometimes hard for me to go on with my work if I am not encouraged. | True | False |
| 2. I sometimes feel resentful when I don't get my way. | True | False |
| No matter who I'm talking to, I'm always a good listener. | True | False |
| 3. There have been occasions when I took advantage of someone. | True | False |
| 4. I'm always willing to admit it when I make a mistake. | True | False |
| 5. I sometimes try to get even rather than forgive and forget. | True | False |
| 6. I am always courteous even to people who are disagreeable. | True | False |
| 7. I have never been irked when people expressed ideas very different from my own. | True | False |
| 8. There have been times when I was quite jealous of the good fortune of others. | True | False |
| 9. I am sometimes irritated by people who ask favors of me. | True | False |
| 10. I have never deliberately said something that hurt someone's feelings. | True | False |

Positive Psychology and Faith

Positive psychology is the science of human flourishing, including topics such as gratitude, happiness, forgiveness, grace, humility, and wisdom. Please indicate your perspectives on positive psychology and the Christian faith by responding to the following items.

| | Strongly Disagree | | | | Strongly Agree | | |
|--|----------------------|---|---|---|-------------------|---|---|
| 1. Positive psychology is a worthwhile endeavor | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Christians have things to learn from positive psychologists | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Positive psychologists have things to learn from Christians | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. Positive psychology and Christianity share common values | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Psychological science can contribute to my faith | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. It is important for science and faith to work together | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Brief Congregation Grateful State Survey

| | | | | | | | | | |
|---|----------|------------|-------------|-----------|--|--|--|--|--|
| Please create a unique identification code using the month and day of your birth and the first letter of your first and middle name (e.g.: 0517JS) and enter it here: <div style="border-bottom: 1px solid black; width: 150px; margin-top: 5px;"></div> | | | | | Please circle your gender: male female | | | | |
| How much does each of the following five attributes describe how you felt over the past three days? (Please circle one number below each) | | | | | | | | | |
| grateful | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | | |
| Very slightly or not at all | A little | moderately | Quite a bit | extremely | | | | | |
| active | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | | |
| Very slightly or not at all | A little | moderately | Quite a bit | extremely | | | | | |
| appreciative | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | | |
| Very slightly or not at all | A little | moderately | Quite a bit | extremely | | | | | |
| distressed | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | | |
| Very slightly or not at all | A little | moderately | Quite a bit | extremely | | | | | |
| thankful | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | | |
| Very slightly or not at all | A little | moderately | Quite a bit | extremely | | | | | |

Thank you for your participation!

Appendix B**Email Communication with Participants**

Introduction email:

Dear ...:

As you know from your pastor ..., XXX Church, George Fox University, and the Templeton Foundation are partnering on a ministry project at your church. Part of this project is my dissertation research, so I am particularly grateful that you are willing to complete some online questionnaires!

The online questionnaire will take about 35 minutes to complete and involve questions about a number of personal attitudes and behaviors. All information will be stored and processed in an anonymous way so that your responses cannot be connected to your name. We'll ask you to do this now, again in late February, and once again in late March. We have some funds through the grant to give you a gift card after you complete the last questionnaire. The gift card will be at least \$45, but we may be able to round it up to \$50, depending on how some other details in the budget work out.

The link to the survey is here:

<https://www.surveymonkey.com/.....>

When prompted for an ID number, please enter

Please complete this first questionnaire by this coming Saturday, January, 31, if at all possible.

Feel free to contact me if you have any questions. My email is juhder10@georgefox.edu, and my telephone number is (509) 496-2351.

Yours sincerely,

Jens Uhder

Doctoral student in clinical psychology
George Fox University

Week 1 – Inspirational prompt 1:

Dear :

Happy Sunday and I hope you are enjoying the "work of gratitude." I say work because that is really what it takes to slow down, take note, and savor the gift of life - your life.

Below is a link to a beautiful 6 min Youtube video narrated by Austrian Franciscan Brother David Steindl-Rast. I invite you to find a quiet moment to watch it and spend a few minutes to let the realization unfold that there is indeed so much out there waiting to be noticed, enjoyed, and truly received...

https://www.youtube.com/watch?feature=player_detailpage&v=nj2ofrX7jAk

Greetings and have a wonderful week!

Jens Uhder

Doctoral student in clinical psychology

George Fox University

Week 2 – Inspirational prompt 2:

Dear:

Greetings on this spring-like long Valentine's Day weekend.

Often, I catch myself in the middle of the day, realizing that I spent hours from the moment I awoke absent-minded and frazzled like in a haze. Following the beaten path of daily routines and habitual patterns of thinking -- planning, worrying, commenting -- my life had been on autopilot. I had been snoozing with open eyes at the wheel until finally something happened that shook me awake. Strangely, hours had gone by without me even fully taking notice of the things that happened.

Usually, what finally gets my attention are bumps in the road, unwelcome interruptions to my smooth, well-rehearsed flow of fast-paced busyness. At other times, I am surprised by an unexpected moment of pleasure hitting me like a sudden fresh breeze, like a sweet song above the monotonous humming of the engines, like a sunbathed morning landscape appearing at the end of the foggy veil.

Perhaps there is no better way to stay attentive and attuned to the moment as cultivating gratitude.

Hurry

On thin ice, speed is of the essence.

But in the living of life,

swiftness diminishes presence,

short-changing experience of its due.

Survival may be achieved

but full life may pass us by.

Slow down, my soul,

refuse the haste that kills.

Drink deeply the morning dew;

touch tenderly the evening stars.

(From *The Color of Gratitude And Other Spiritual Surprises* by Robert Morneau)

Below is a link to another Youtube video, this time by Ann Voscamp, the author of *One Thousand Gifts*. <https://www.youtube.com/watch?v=GhOUaszMGvQ>

Have a wonderful week!

Jens Uhder

Doctoral student in clinical psychology

George Fox University

Week 3– Inspirational prompt 3:

Dear ...:

As our project is moving into its final week, I am sending you a brief animated slideshow with a gratitude reflection (see attachment). In order to view it, you will need to open it on a computer rather than your mobile device. I hope, you'll enjoy it.

In a few days, you will also receive the link to our second online survey. Thank you for your participation.

Have a wonderful week!

Jens Uhder
Doctoral student in clinical psychology
George Fox University

Appendix C

Curriculum Vitae

JENS W. UHDER, M.S., M.A.

12810 S. Valley Chapel Rd.
Valleyford, WA 99036
Phone: (509) 496-2351
E-mail: juhder10@georgefox.edu

Education

| | |
|--|-------------------|
| Doctor of Psychology, Clinical Psychology | Expected May 2016 |
| George Fox University, <i>Newberg, OR</i> | |
| Doctoral Dissertation: Defense expected June 2015 | |
| Graduate Department of Clinical Psychology: APA-Accredited | |
| Master of Arts, Clinical Psychology | May 2013 |
| George Fox University, <i>Newberg, OR</i> | |
| Graduate Department of Clinical Psychology: APA Accredited | |
| Master of Science, Clinical Psychology | June 2010 |
| Eastern Washington University, <i>Cheney, WA</i> | |
| Diplom-Psychologe | July 1999 |
| Johann Wolfgang Goethe-Universität, <i>Frankfurt (Germany)</i> | |

Pre-doctoral Internship

| | |
|--|------------|
| University of Idaho Counseling and Testing Center, Moscow, ID | July 2015- |
| Title: Psychological Intern | Present |
| Treatment setting: University Counseling | |
| <ul style="list-style-type: none">○ Provide individual psychotherapy and crisis consultations to students. Common presenting problems include depression, anxiety, substance abuse, PTSD, substance-related disorders, relationship conflicts, acculturation problems.○ Conduct comprehensive psycho-educational assessments.○ Serve as consultation and liaison with Office of Multicultural Affairs, providing individual consultations and educational presentations○ Participate in Alcohol-education and prevention programs (CHOICES, BASICS, Smart Recovery) | |
| Hours: 40 hours/week. | |

Supervised Clinical Experience

| | |
|--|---------------|
| Salud Medical Center, Woodburn, OR | June 2014- |
| Title: Behavioral Consultant Intern | February 2015 |
| Treatment setting: Primary care medical home clinic with integrated Behavioral Consultant service | |
| <ul style="list-style-type: none">○ Provided short-term behavioral health services within a primary care medical home to patients of varying age, ethnicity, and socioeconomic status. | |

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Approximately 70% of services provided with Spanish translator.

- Common presenting problems included depression, anxiety, domestic violence, PTSD, parenting problems, substance-related disorders, medical treatment compliance issues.
- Administered and interpreted screenings and assessments, assisted with crisis management, and warm handoffs.
- Engaged in consultation and coordination of care as part of a multidisciplinary team of physicians, nurse practitioners, physician assistants, and nurses.

Hours: Approximately 10-12 hours/week.

Gonzaga University, Spokane, WA.

August 2013-May

Title: Doctoral Trainee

2015

Treatment Setting: University Counseling Center

- Provided individual therapy, crisis consultations, risk assessments, career counseling, and psycho-educational assessment to students of various nationalities, ethnic backgrounds, and sexual orientations.
- Common presenting problems included anxiety, depression, adjustment disorders, acculturation problems, substance abuse problems.
- Participated in outreach activities to students and parents
- Co-facilitated didactic presentations to residential advisors.
- Conducted psycho-educational assessments and consulted with university disabilities office to determine academic accommodations.

Hours: Approximately 16 hours/week.

Willamette Family Medical Center, Salem, OR

May 2012-

Title: Behavioral Health Intern

June 2013

Treatment Setting: Primary care medical clinic

- Provided short-term behavioral health services within a primary care model for patients of varying age, gender, sexual orientation, ethnicity, and socioeconomic status, including those with Medicaid/Medicare and the uninsured.
- Common presenting problems included depression, anxiety, chronic pain, eating disorders, ADHD, intellectual and developmental disorders, parenting problems, chronic mental illness, and disabilities.
- Assisted with crisis management, conducted brief screeners, participated in warm handoffs, and provided comprehensive personality and neurodevelopmental assessments for providers.
- Engaged in consultation and care coordination as part of a multidisciplinary team of physicians, nurse practitioners, physician assistants, and nurses.

Hours: Approximately 16-20 hours/week.

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George Fox University Graduate Department of Clinical Psychology

January 2011-

Title: Pre-practicum Student Therapist

May 2011

Treatment setting: University counseling

- Provided weekly client-centered therapy for two undergraduate students.
- Conducted intake interviews, developed treatment plans, wrote formal intake reports, and completed termination summaries.

Hours: Approximately 5 hours/week

Spokane Mental Health – Dept. of Children and Family Services

July 2009-

Title: Psychology Student Intern

June 2010

Treatment setting: Community mental health

- Provided individual and family therapy to children, adolescents, and their parents /care givers.
- Typical presenting problems included depression, anxiety, family conflict, bullying, developmental disorders.
- Developed treatments plans, coordinated services with schools and Department of Health and Family Services.
- Participated in home visits.
- Co-facilitated a parent training group and therapeutic summer groups for young school-aged children.

Hours: Approximately 18 hours/week

Eastern Washington University – Department of Clinical Psychology, Cheney, WA

October 2008-

May 2009

Title: Student intern

Treatment Setting: University Counseling

- Provided weekly individual therapy to two student volunteers
- Conducted intake interviews, developed treatment plans, wrote formal intake reports, and completed termination summaries.
- Assisted in leading a psychodynamic process group for psychology students.

Hours: Approximately 4-5 hours/week

De'Ignis Klinik, Altensteig (Germany)

September 1997-

October 1997

Title: Psychology Student Intern

Treatment Setting: Inpatient psychotherapy hospital.

- Provided supplementary skill-building sessions and didactic presentations to patients, co-facilitated relaxation groups, conducted diagnostic evaluations, assisted in writing treatment reports to insurance providers.
- Typical presenting problems included chronic depression, anxiety, somatization disorders, personality disorders.

Hours: Approximately 45 hours/week

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Klinikum Offenbach, Offenbach (Germany)

July 1995-

Title: Psychology Student Intern

August 1995

Treatment Setting: Psychiatric unit of a large inner-city medical center

- Provided supportive skills training to psychiatric patients with a variety of disorders on a closed ward.
- Typical presenting problems included chronic psychotic disorders, substance use, personality disorders, and severe depression.
- Co-facilitated therapy groups, conducted comprehensive diagnostic evaluations.

Hours: Approximately 40 hours/week

Other Relevant Experience

Teaching Assistant

Fall 2013

George Fox University Graduate Department of Clinical Psychology

- **PSYD 507** History and Systems of Psychology
- Preparing and editing materials, teaching, grading submitted assignments, videotaping classes (4-6 hours weekly.)

Foster parent for Florida Department of Children's and Families Services,
Pensacola, FL.

2003-2007

- Hosted various individual children and sibling groups, including intellectually disabled children, sexually and physically abused children, and children with ADHD.

Program Evaluation and Development, Madison, TN.

2003-2007

- Developed a standardized assessment procedure for the selection of pastors, conducted individual assessments, participated in the development of church assessment instruments, conducted demographical research, prepared presentations. (3-5 days/ month.)

Klinikum Offenbach, Offenbach (Germany)

November 1995-

Title: Psychiatric Nurse's Assistant

September 1996

Treatment Setting: Psychiatric unit of a large inner-city medical center

- Participated in milieu therapy with severely mentally ill patients with a variety of psychiatric and neurological disorders on a closed ward.

Hours: Approximately 20 hours/week.

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Klinik Hohemark – Psychotherapy Dept., Oberursel (Germany)

July-August 1994

Title: Psychiatric Nurse's Assistant

Treatment Setting: Inpatient psychotherapy hospital

- Assisted with care to patients participating in a 6-week psychodynamic treatment program
- Shadowed and assisted in various psychodynamic therapy groups.

Hours: Approximately 30 hours/week

Research Experience

Graduate Department of Clinical Psychology at George Fox University, Newberg, OR.

March 2011- May 2015

Research Vertical Team

- Twice monthly meetings to discuss, collaborate on and evaluate the design, methodology, and progress of dissertations and other research projects.

Faculty Advisor: Mark McMinn, PhD

Doctoral Dissertation

- Title: The Benefits of Gratitude in Spiritual Formation. Collaborative Development of a Gratefulness Intervention in a Christian Church Community.
- Purpose: A grant-funded systems cross-disciplinary consultation project examining the effect of a gratitude intervention on eudaimonic well-being and attitude towards the science of psychology.

Faculty Advisor: Mark McMinn, PhD

Department of Clinical Psychology at Eastern Washington University, Cheney, WA.

January 2009- May 2010

Function: Research Lab Coordinator.

- Coordinated and oversaw the work of 10-15 graduate students in a positive psychology research lab.
- Participated in weekly meetings to plan research projects, conducted data processing and data analysis using SPSS and AMOS.

Hours: Approximately 5-10 hours/week.

Faculty advisor: Philip Watkins, PhD

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Masters Thesis

- Title: Language use in grateful processing of painful memories.
- Purpose: Quantitative analysis of linguistic patterns in journal entries from an experimental study involving painful memories and the mediating effect of gratitude on expressed sense of closure.

Faculty advisor: Philip Watkins, PhD

Department of Clinical Psychology at Johann Wolfgang Goethe-University, Frankfurt (Germany).

July 1997 – Dec. 1999

Function: Research Assistant

- Participated in the design of an experimental study with Social Phobia patients, conducting behavioral observations of patients at a CBT research clinic.
- Coordinated the work of 3-5 students on research team.
- Translated and adapted rating scales, helped with manuscript preparation. data analysis using SPSS.

Hours: Approximately 5-10 hours/week

Diplom Thesis

- Topic: The Factorial and Criterion Validity of the Social Phobia Scale (SPS) and the Social Interaction Anxiety (SIAS) using Quasi-Experimental, Cognitive, Physiological, and Behavioral Data.
- Purpose: Validation of the German versions of the Social Phobia Scale (SPS) and the Social Interaction Anxiety Scale (SIAS).

Faculty Advisors: Dr. Ulrich Stangier, Dr. Thomas Heidenreich.

Department of Psychological Methodology at Johann Wolfgang Goethe- University, Frankfurt (Germany).

April – July 1995

Function: Research Assistant

- Participated in manuscript preparation and editing.

Hours: Approximately 5 hours/week.

Peer-reviewed publications/papers/presentations:

- **Uhder, J.** (2016, August). The benefits of gratitude in a religious community setting. In M. R. McMinn, R. K. Bufford (Chairs), *Positive psychology in Christian faith communities*. Symposium accepted for the meeting of the American Psychological Association, Washington, D.C.
- **Uhder, J.** (2016, March). Collaborating with a church to promote gratitude. In M. R. McMinn (Chair), *Grace, gratitude, and wisdom go to church: Investigating positive psychology in Christian faith communities*. Symposium accepted for the meeting of the Christian Association for Psychological Studies, Pasadena, CA.

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- **Uhder, J.** (2014, August). Identifying predictors of therapy success. In M. R. McMinn (Chair), *Large-scale psychotherapy data collected via smartphones and tablets*. Symposium conducted at the meeting of the American Psychological Association, Washington, D.C.
- Watkins, P. C., **Uhder, J.**, & Pichinevskiy, S. (2014). *Grateful Recounting Enhances Well-Being: The Importance of Grateful Processing*. Manuscript accepted for publication.
- McMinn, M. R., & Goodworth, M-C., Borrelli, J., Goetsch, B., Lee, J. L., & **Uhder, J.** (2013). Spiritual formation training in the George Fox University Graduate Department of Clinical Psychology. *Journal of Psychology and Christianity*, 32, 313-319.
- Watkins, P. C., **Uhder, J.**, Pichinevskiy, S., Sparrow, A., Jensen, C., & Pereira, A. (2012, May). *Gratitude “Three Blessings” Treatment Produces Improved Well-Being: The Importance of Positive Memory Accessibility*. Poster presented at the Annual Convention of the Association for Psychological Science, Washington, D.C.
- Watkins, P. C., **Uhder, J.**, Webber, A., Pichinevskiy, S., & Sparrow, A. (2011, May). *Religious affections: The importance of gratitude toward God to spiritual well-being*. Poster presented at the Annual Convention of the Association for Psychological Science, Chicago.
- **Uhder, J.**, Watkins, P. C., & Hamamoto, D. (2010, August). *Would the humble please stand. Can self-reported humility be valid?* Paper presented at the Annual Convention of the American Psychological Association, San Diego,
- **Uhder, J.**, Webber, A., & Watkins, P. C. (2010, August). *Favors from heaven. Sources and benefits of gratitude toward God*. Poster presented at the Annual Convention of the American Psychological Association, San Diego, CA.
- **Uhder, J.**, Kononchuk, Y., Sparrow, A., & Watkins, P. C. (2010, May). *Language use in grateful processing of painful memories*. Poster presented at the Annual Convention of the Association for Psychological Science, Boston, MA.
- **Uhder, J.**, Watkins, P. C., & Ovnicek, M. (2009, May). *The debt of gratitude is lighter for women than for men*. Poster presented at the Annual Convention of the Association for Psychological Science, San Francisco, CA.
- Heidenreich, T., **Uhder, J.**, Debus, A., Sandell, A. & Stangier U. (1999, May). *Kriteriumsvalidität der deutschen Version der “Social Interaction Anxiety Scale” (SIAS) und der “Social Phobia Scale” (SPS)*. Poster presented at the Workshop Convention for Clinical Psychology and Psychotherapy, Bad Duerkheim (Germany).
- Sandell, A., **Uhder, J.**, Debus A., Berardi, A., Musumeci, M. Heidenreich, T. & Stangier, U. (1997, August). *Cognitive Processes in Social Phobias: Contingent vs. Non-Contingent Social Situations*. Poster presented at the Annual Convention of the American Psychological Association, Chicago, IL.
- **Uhder, J.**, Sandell, A., Debus A., Berardi, A., Musumeci, M., Heidenreich, T. & Stangier, U. (1997, October). *Cognitive and Physiological Reactions of Sociophobics in Social Interactions vs. Performance situations*. Paper presented at the Annual Convention for Applied Psychology, Wuerzburg (Germany).

Memberships & Awards

Memberships

- American Psychological Association, Student Affiliate
- Washington Psychological Association, Student Affiliate
- Christian Association for Psychological Studies, Student Affiliate

Awards

- Templeton Foundation Dissertation Grant (\$10,000) May 2014