

## Article

# The Role of Optimism and Abstinence in the Mechanism Underlying the Indirect Links of Religious and Spiritual Involvement with the Happiness of Alcoholics Anonymous from Poland

Marcin Wnuk 

Department of Psychology, Adam Mickiewicz University in Poznań, 60-568 Poznań, Poland; marwnu@amu.edu.pl; Tel.: +48-664-934-268

**Abstract:** Religiosity and spirituality are important factors for recovery of alcohol-addicted individuals. Previous studies have given some suggestions about the spiritual mechanism that influences the wellbeing of representatives of this group. The purpose of this research was to examine whether religious practices and spiritual experiences are indirectly related, through optimism and duration of abstinence, to the happiness of alcohol-dependent individuals participating in Alcoholics Anonymous (AA). The study had a cross-sectional design; path analysis in structural equation modeling was used. The sample consisted of 115 AA participants in Poland. The Daily Spiritual Experiences Scale (DSES) was used in the study, along with questionnaires surveying three indicators of happiness—desire for life, passion for life, and evaluation of current happiness—along with four further measures—optimism, length of abstinence, frequency of prayer, and frequency of Mass attendance. Confirmed indirect relationship between spiritual experiences and happiness through optimism and the abstinence duration and indirect links between religious practices and happiness. Among AA participants, religious practices were positively related to spiritual growth, which via longer abstinence and higher levels of optimism, were indirectly related to improved happiness. The research results indicate a beneficial role played by religious practices and spiritual experiences in AA participants, associated with their happiness and relevant variables such as optimism and abstinence duration.

**Keywords:** Alcoholics Anonymous; religious practices; spiritual experiences; optimism; abstinence duration



**Citation:** Wnuk, Marcin. 2022. The Role of Optimism and Abstinence in the Mechanism Underlying the Indirect Links of Religious and Spiritual Involvement with the Happiness of Alcoholics Anonymous from Poland. *Religions* 13: 853. <https://doi.org/10.3390/rel13090853>

Academic Editor: Hans Zollner

Received: 22 July 2022

Accepted: 11 September 2022

Published: 14 September 2022

**Publisher's Note:** MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



**Copyright:** © 2022 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

## 1. Introduction

In Poland, alcoholism is a serious social problem. According to data from the Polish State Agency for Prevention of Alcohol-Related Problems in Poland, there are about 800 thousand alcohol-addicted individuals and about 2–2.5 million drink in a harmful way<sup>1</sup>. The National Sobriety Program was established in 2018 as a method to protect against and prevent alcoholism and its negative social effects<sup>2</sup>. One of the methods of treatment for alcohol-dependent individuals in Poland is participation in Alcoholics Anonymous (AA). Historically, this fellowship started work in Poland in 1974 (Tadeusz 2012), and thanks to further growth currently 2300 meetings of AA are available in Poland every week<sup>3</sup>.

Some social, cognitive, and spiritual mechanisms of recovery in this group of individuals have been explored (Kaskutas et al. 2002; Kelly et al. 2012). For example, one source of spiritual growth, leading through hope and meaning in life to subjective well-being, is involvement in AA (Wnuk 2022). Wnuk (2021a) identified the mechanisms underlying the indirect relationship between spiritual experiences and hopelessness, and the beneficial function in this link of hope, meaning in life, and abstinence duration. Little is known about the role of religiosity in the recovery of AA participants (Geppert et al. 2007). One of the reasons for this is the skeptical approach of self-help groups, contributing to a secular,

egalitarian fellowship open to different religious affiliations and non-believers alike. This means that religiously inclined alcohol-dependent patients can use this kind of support as a religious mode of spiritual growth, parallel with involvement in AA as a secular form leading to this aim (Atkins and Hawdon 2007; Pardini et al. 2000; Wnuk 2021b). The first approach represents religious spirituality, while the second one represents secular spirituality. Recent research has confirmed that religious commitment and AA involvement are antecedents of spiritual growth (Krentzman et al. 2013, 2017; Wnuk 2021b; Zembre 2007).

The aim of this study was the verification of recovery mechanisms reflecting the indirect relationships between religious and spiritual involvement and the happiness of AA participants, through abstinence and optimism.

## 2. Literature Review

### 2.1. Spirituality and Religiosity in Alcoholics Anonymous

According to the philosophy adopted by Alcoholics Anonymous, alcoholism is a chronic, progressive, and fatal disease that has a negative effect on all spheres of functioning, ranging from somatic wellbeing, through mental and social, and ending with spiritual wellbeing (Ugochukwu et al. 2013; Alcoholics Anonymous 2001). Concentration on spiritual growth as the most important element of recovery is considered to be the essence of functioning of this form of support (Alcoholics Anonymous 2001). It is expressed through work on spiritual guidelines on the road to recovery, included in the 12-step program (Twelve Steps and Twelve Traditions 1987). According to AA philosophy, participants receiving this form of support are more likely to identify themselves as spiritual but not religious (McClure and Wilkinson 2020), and in comparison with other recovery groups statistically they more often declared that the 12-step program is spiritual, not religious (Atkins and Hawdon 2007). Despite the emphasis on the spiritual character of the 12-step program, with simultaneous skepticism about its religious inclinations (Atkins and Hawdon 2007; Kurtz 2008), many participants of self-help groups develop their spirituality through religious practices such as prayer or attending Mass. For example, in studies conducted by Koski-Jännes and Turner (1999) it emerged that for 43% of alcoholics prayer was the element that consolidated changes in their recovery process. It has been observed that after one year of treatment, religiosity of alcohol addicts was one of the predictors of involvement in 12-step self-help groups (Mankowski et al. 2001). Also, among Sex and Love Addicts Anonymous (SLAA) from Poland, the strength of religious faith and prayer correlated positively with spiritual experiences (Wnuk 2017).

In the opinion of the majority of researchers, spirituality is not a notion equivalent to religiosity. Religiosity is institutionalized, it has a ritual and ideological character, and it focuses on dogma, rites, and manifestations of cult or ritual, as opposed to spirituality, which has an individual character and concentrates on internal feelings, experiences, and thoughts (Pargament 1999). Opinions predominate that spirituality is a wider term than religiosity (Cawley 1997), although some researchers have tried to prove that it is the other way around (Hill et al. 2000).

Apart from the relation to God or other "Higher Power", spirituality covers attitudes towards oneself, other people, and the world (Dyson et al. 1997; Martsof and Mickley 1998). Within the framework of the conducted studies, the author assumed that sources of spiritual experiences can be the participants' attending Mass and praying. In this context, religious practices can be an antecedent of spiritual experience as an integral part of religiosity (Wulff 1991). According to Underwood and Teresi (2002), spiritual experiences are expressions of the spiritual sphere, functioning and manifesting in a sense of connection with one's life, a sense of peace, comfort, harmony, a sense of loving God, directly as well as indirectly through other people, a sense of being touched by the beauty of creation or close presence of God. Based on Wnuk's study (Wnuk 2021b), which confirmed that religiosity was related to spirituality in a sample of alcohol-dependent individuals, positive correlations were expected between Mass attendance, prayer, and spiritual experiences.

**Hypothesis 1:** *In a sample of AA participants, religious practices such as prayer and attending Mass are positively related to spiritual experiences.*

### *2.2. The Indirect Relationship between Spirituality and Wellbeing through Abstinence*

The results of recent studies have proven that AA participants' spirituality is related to abstinence (Poage et al. 2004; Carroll 1993; Zemore 2007; Polcin and Zemore 2004; Rush 2000). For example, Rush (2000) found positive correlation between spirituality and abstinence duration in a sample of women participating in AA.

In a study conducted with two groups of patients addicted to alcohol, where the group inclusion criterion was duration of abstinence (less than one year vs. more than one year), abstinence longer than one year turned out to be characteristic of participants who manifested higher levels of spirituality, fewer psychiatric symptoms, and more frequent participation in AA (Carter 1998).

In longitudinal studies conducted within a therapy based on the 12-step program, there was an increase in participants' levels of spirituality in the 12th week in comparison with when the participants started the therapy. A higher level of spirituality characterized individuals who were able to maintain abstinence, in comparison with those who did not achieve this therapeutic aim (Brown et al. 2007). In other research conducted with this group, spirituality correlated positively with abstinence duration (Polcin and Zemore 2004).

Abstinence is not the same as sobriety (Helm 2019); it leads to better mental health and positive outcomes (Kairouz and Dube 2000; Donovan et al. 2005; Foster et al. 1998, 1999). Foster et al. (1999) reviewed of papers regarding abstinence from alcohol and quality of life, and found that these two variables were positively correlated. In a sample of AA participants, length of abstinence correlated positively with wellbeing (Kairouz and Dube 2000). In a nationally representative sample of American adults recovering from alcohol and other drug addiction, abstinence was positively related to five measures of well-being, i.e., quality of life, happiness, self-esteem, recovery capital, and psychological distress, with the exception of the first year during which self-esteem and happiness initially decreased before improving (Kelly et al. 2018).

Among AA participants, indirect relationships between religious or spiritual aspects of functioning and wellbeing were found to be associated with abstinence duration. In a study (Wnuk 2021a) conducted among AA participants from Poland, spiritual experiences were positively related to abstinence, which in turn negatively correlated with hopelessness. This means that within self-help groups, individuals addicted to alcohol develop their spirituality based on their relationship with a "Higher Power", which for most of them is identified with God, thanks to the support and guidance by which they are able to maintain abstinence. Considering that for many their earlier attempts to maintain abstinence were futile, an increase in the length of abstinence enabled them to experience greater happiness and fulfillment.

**Hypothesis 2:** *In a sample of alcohol-addicted individuals participating in AA, spiritual experiences are indirectly related to happiness through abstinence duration.*

### *2.3. The Indirect Relationship between Spirituality and Wellbeing through Optimism*

Spirituality is an important factor in shaping the optimism of alcohol and drug addicts. For example, Pardini et al. (2000) found that in patients' recovery from alcohol and drug addiction, strength of faith and spirituality were positively related to optimism. Meanwhile, optimism is an antecedent of wellbeing in alcohol-dependent individuals. In a sample of AA participants' dispositional optimism, self-esteem, social self-esteem, and social confidence were indicators relating to the factor defined as interpersonal insecurity; this factor was positively indicated by lack of trust, fear of evaluation, interpersonal discomfort, need for approval, and preoccupation (Suire and Bothwell 2006). In other research conducted among recovering alcohol-addicted individuals, dispositional optimism was a predictor of a successful outcome (Strack et al. 1987).

Some studies outside the area of addiction research have indicated optimism as a variable involved in the mechanism underlying the relationship between spirituality and well-being. For example, psychosocial resources consisting of dispositional optimism, self-esteem, and mastery mediated between spirituality and depressive symptoms in a sample of women diagnosed with postpartum depression (Cheadle and Schetter 2018). Also, among older Ghanaian adults (Aglozo et al. 2021), spirituality was indirectly related to negative affect via optimism.

In a sample of females participating in self-help groups for co-dependent individuals, spiritual experiences were indirectly related to life satisfaction via optimism (Wnuk et al. 2009). Co-dependent individuals as participants of self-help groups underwent the same 12-step program as Alcoholics Anonymous; the difference between these two groups refers to the fact that one group is addicted to alcohol and the other presents a codependency to an addicted person. It can therefore be assumed that among AA participants, optimism can be a variable that mediates between life satisfaction and the frequency of spiritual experiences.

**Hypothesis 3:** *Among AA participants, spiritual experiences are indirectly related to happiness through optimism.*

**Hypothesis 4:** *Religious practices are indirectly related to happiness.*

### 3. Materials and Methods

#### 3.1. Participants

Participants in the presented studies were randomly selected from AA participants in Poland. All the investigated individuals expressed their consent to take part in the research project. Questionnaires were distributed by a psychologist before meetings of particular AA groups, and collected one week later, during a consecutive meeting. Out of 200 questionnaires given out to the participants, 115 were handed back. All participants were Roman Catholic. The mean age of the subjects was 50.00 years (SD = 10.8). The mean abstinence duration was 6.05 years (SD = 6.03), and the mean length of AA attendance was 8.41 years (SD = 7.57). The reliability of this happiness scale as a latent variable containing three measurable indicators was  $\alpha = 0.67$ . The internal validity of this tool was confirmed by confirmatory factor analysis.

#### 3.2. Measures

##### 3.2.1. Spiritual Experiences

The Daily Spiritual Experiences Scale (DSES) consists of 16 questions. In the reported study, a shorter version of this questionnaire was applied. The investigated individuals responded using a six-point scale, ranging from 1 = never or almost never, to 6 = many times a day. The higher the number of points obtained by the person, the higher that person's level of spirituality. This measure presents satisfactory psychometric properties. Its reliability has been tested in different research populations, achieving results from  $\alpha = 0.86$  to  $\alpha = 0.95$  (Laustalot et al. 2006). The Polish adaptation of this tool was constructed by Wnuk (2009), confirming a two-factorial structure consistent with the original version (Laustalot et al. 2006), and excellent reliability measured by  $\alpha$ -Cronbach coefficient, which for students as well as alcohol-dependent individuals was  $\alpha = 0.94$ .

In the reported research project, its reliability was  $\alpha = 0.94$ .

##### 3.2.2. Happiness

According to Czapinski's onion theory of happiness (Czapinski 1992), three indicators of happiness were used; i.e., desire for life, passion for life, and current happiness evaluation. Desire for life was rated on a 0 to 9 continuum, from 0 meaning total lack of desire for life (the answer: "I don't want to live") to 9 meaning the strongest desire for life (answer: "I want to live very much"). Passion for life was measured by participants' choice of response from three possible answers: (Is life boring (0), bland (1), or exciting (2)? Current happiness

was indicated by marking one of the four answers: Not happy (0), happy (1), quite happy (2), and very happy (3). The one-factor happiness structure encompassing three measurable indicators was confirmed using confirmation factor analysis (CFA). Values of loading for this factor were satisfactory; for the desire for life it was 0.81, for passion for life 0.75, and for evaluation of happiness 0.76. These three indicators explained 59.88% of the variance in happiness, which was more than the required minimum, which is 50% (Pallant 2016).

The reliability of this measure examined by  $\alpha$ -Cronbach coefficient was 0.67.

### 3.2.3. Optimism

Optimism was assessed by using one statement “I am always optimistic in relation to the future”. Research participants responded on a 4-point Likert scale ranging from 1 = categorically disagree to 4 = decidedly agree.

### 3.2.4. Abstinence Duration

On the question regarding abstinence duration, participants reported the number of years they have remained in abstinence.

### 3.2.5. Religious Practices

Religious practices were identified with the use of two questions, pertaining to the frequency of prayer and the frequency of attending Mass. The scale for measuring how often participants attended Mass consisted of 1 = never, with the exception of baptisms, marriages, or funerals; 2 = a few times a year; 3 = once or twice per month; 4 = two or three times per month; and 5 = once per week or more. The five-point scale for measuring how often the participants prayed consisted of never, sometimes, once monthly, once weekly, and every day.

## 4. Statistical Analysis and Results

Harman’s single factor test was applied to examine common method bias, but the results (35.34% of explained variance, Kaiser–Meyer–Olkin statistic = 0.727;  $\chi^2 = 302.64$ ;  $df = 26$ ;  $p < 0.001$ ) were lower than threshold, which is more than 40% (Podsakoff et al. 2003). To verify the research hypotheses, path analysis with structural equations modelling (SEM) was used. Descriptive statistics are shown in Table 1.

**Table 1.** Descriptive statistics for a sample of Alcoholics Anonymous ( $n = 115$ ).

Variable	Minimum	Maximum	Mean	Standard Deviation	Skewness	Kurtosis
Desire for life	3	9	7.76	1.58	−1.36	1.28
Passion for life	0	3	1.3	0.53	0.52	−0.01
Evaluation of happiness	0	3	1.53	0.81	−0.55	−0.37
Frequency of spiritual experiences	7	35	23.25	6.59	−0.7	−0.26
Optimism	1	4	2.97	0.67	−0.41	0.84
Abstinence duration	0	26	5.61	5.78	1.26	0.99
Frequency of prayer	1	5	3.53	1.64	−0.50	−1.6
Frequency of Mass attendance	1	5	4.09	1.44	−1.16	−0.4
Age	23	73	50.03	10.70	−0.43	−0.39

(Source: author’s research).

Results of correlation coefficients are presented in Table 2.

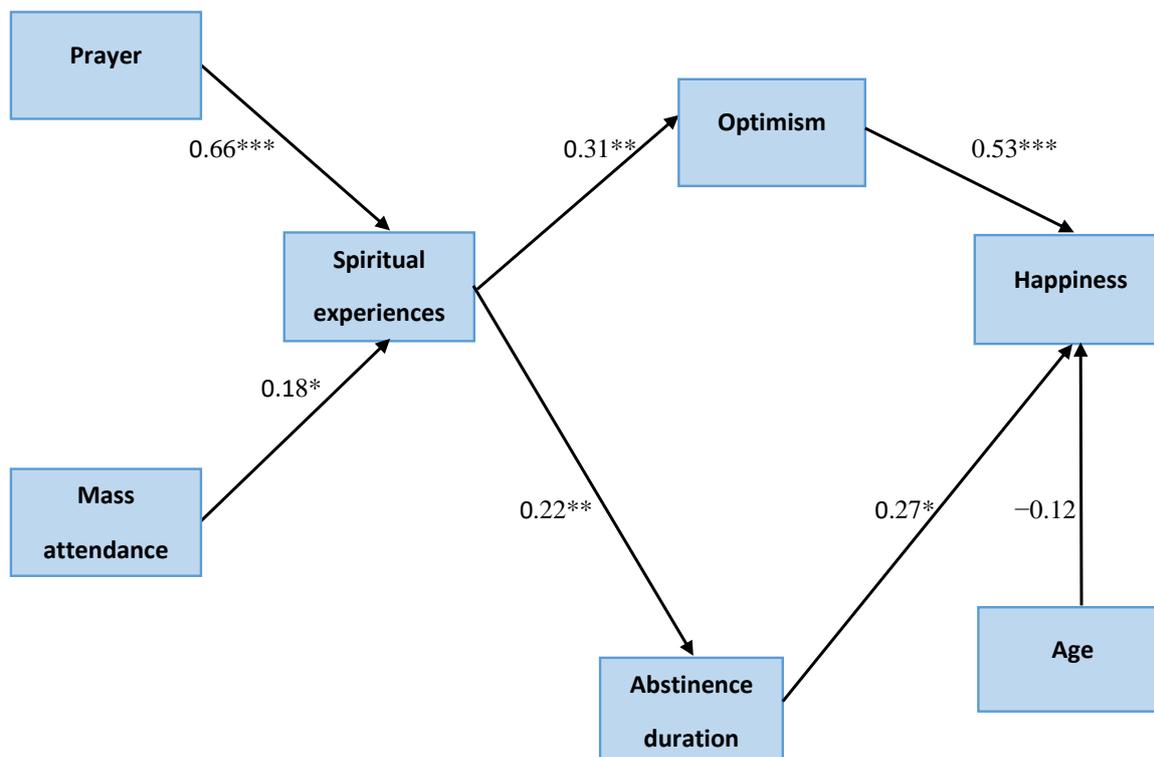
Following Mardia’s (1970) coefficient, the skewness of study variables was less than 2.0 and kurtosis less than 7.0. This implies that data distribution was close to normal distribution, a premise to applying the maximum likelihood method. The significance of the indirect effect was tested using the bootstrapping method, which is considered the best available option for estimating indirect effects, using 5000 subsamples and a 95% bias-corrected confidence interval (Hayes 2013).

**Table 2.** Correlation matrix ( $n = 115$ ).

	1	2	3	4	5	6	7	8			
1. Desire for life											
2. Passion for life	0.42 **										
3. Evaluation of happiness	0.43 **	0.34 **									
4. Frequency of spiritual experiences	0.20 *	0.14	0.30 **								
5. Optimism	0.35 **	0.31 **	0.48 **	0.32 **							
6. Abstinence duration	0.22 **	0.17 *	0.31 **	0.28 **	0.27 **						
7. Frequency of prayer	0.05	−0.06	0.14	0.56 **	0.09	0.20 *					
8. Frequency of Mass attendance	0.04	0.07	0.12	0.76 **	0.18	0.16	0.59 **				
9. Age	0.12	0.01	0.17	0.22 *	0.31 **	0.50 **	0.11 **	0.19 *	0.26 **	0.56 **	

(Source: author’s research), \*  $p \leq 0.05$ , \*\*  $p \leq 0.01$ .

Results of path analysis are presented in Figure 1. Age was the only control variable. Several indicators of model fit were applied; i.e., formed fit index (NFI), comparative fit index (CFI), Tucker–Lewis index (TLI), root mean square error of approximation (RMSEA). Due to the relatively small sample the Bollen–Stine bootstrapping method was used to increase the likelihood of veracity of the obtained results.



**Figure 1.** Path analysis results. Note that the standardized regression coefficients are presented. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . For the sake of legibility, the correlations between the residuals of mediators (optimism and abstinence duration) have been omitted. The model was controlled for age (a negative relationship between age and happiness was noted:  $r = -0.12$ ,  $p = 0.366$ ). Taking into account other correlations between the residuals of research variables, age significantly correlated positively with abstinence duration ( $r = 0.44$ ,  $p < 0.001$ ), optimism ( $r = 0.17$ ,  $p = 0.038$ ), and Mass attendance ( $r = 0.23$ ,  $p = 0.014$ ). Prayer was positively related to Mass attendance ( $r = 0.59$ ,  $p < 0.001$ ). (Source: author’s research).

Achieved results indicated the model’s good fit:  $\chi^2(21) = 20.25$ ;  $p = 0.5$ ; CMIN/df = 0.96; CFI = 1; TLI = 1; NFI = 0.94; RMSEA = 0.000 (90% CI [0.000, 0.079]); SRMR = 0.0548. The Bollen–Stine bootstrapping method ( $p = 0.58$ ) also confirmed the good fit.

Statistically, prayer was significantly directly related to spiritual experiences (95% CI [0.50, 0.81];  $p = 0.031$ ;  $\beta = 0.66$ ), and indirectly related to optimism (95% CI [0.61, 0.37];  $p = 0.008$ ;  $\beta = 0.21$ ), abstinence duration (95% CI [0.40, 0.24];  $p = 0.005$ ;  $\beta = 0.14$ ) and happiness (95% CI [0.61, 0.26];  $p = 0.001$ ;  $\beta = 0.15$ ).

Mass attendance was directly related to spiritual experiences (95% CI [0.36, 0.01];  $p = 0.045$ ;  $\beta = 0.18$ ) and indirectly related to optimism (95% CI [0.01, 0.16];  $p = 0.001$ ;  $\beta = 0.06$ ), abstinence duration (95% CI [0.01, 0.11];  $p = 0.008$ ;  $\beta = 0.04$ ), and happiness (95% CI [0.01, 0.11];  $p = 0.000$ ;  $\beta = 0.04$ ).

There was a statistically significant direct effect of spiritual experiences on optimism (95% CI [0.74, 0.52];  $p = 0.012$ ;  $\beta = 0.31$ ) and abstinence duration (95% CI [0.58, 0.35];  $p = 0.007$ ;  $\beta = 0.22$ ), and an indirect effect of spiritual experiences on happiness through these variables (95% CI [0.08, 0.38];  $p = 0.001$ ;  $\beta = 0.23$ ). Also, optimism (95% CI [0.31, 0.73];  $p = 0.000$ ;  $\beta = 0.53$ ) and abstinence duration (95% CI [0.04, 0.46];  $p = 0.023$ ;  $\beta = 0.27$ ) were each directly related to happiness.

The results of total indirect effects and specific indirect effects of spiritual experiences and religious practices on happiness are presented in Table 3. All these results were statistically significant, confirming that religious practices and spiritual experiences are indirectly related to the happiness of AA participants from Poland.

**Table 3.** Results of total indirect effects and specific indirect effects; 95% confidence interval.

Pathway	Total Indirect Effect	Specific Indirect Effect	<i>p</i>	LLCI	ULCI
Prayer—DSES—optimism—happiness	-	0.095	0.009	0.210	0.009
Prayer—DSES—abstinence—happiness	-	0.035	0.022	0.084	0.022
Prayer—happiness	0.130	-	0.002	0.251	0.002
Mass attendance—DSES—optimism—happiness	-	0.023	0.039	0.081	0.039
Mass attendance—DSES—abstinence—happiness	-	0.009	0.036	0.036	0.035
Mass attendance—happiness	0.032	-	0.040	0.100	0.040
DSES—optimism—happiness	-	0.031	0.010	0.068	0.010
DSES—abstinence—happiness	-	0.011	0.021	0.027	0.021
DSES—happiness	0.043	-	0.021	0.080	0.002

(Source: author’s research). LLCI = 95% confidence interval (low); ULCI = 95% confidence interval (high). DSES—Daily Spiritual Experiences Scale.

### 5. Discussion

The aim of this study was the examination of indirect relationships between religious practices, spiritual experiences, and happiness, considering the role of optimism and abstinence in these connections. Hypothesis 1, according to which AA participants’ religious practices are positively related to spiritual experiences, was confirmed. The more frequently the study subjects prayed and attended Masses, the more frequently they felt spiritual experiences. These findings are consistent with previous studies indicating that religious commitment, both private and public, is positively linked with the spiritual growth of members of AA (Pardini et al. 2000). AA is a secular fellowship (Alcoholics Anonymous 2001; Kurtz 2008) and the 12-step program has a spiritual character (Twelve Steps and Twelve Traditions 1987). Regardless of skepticism about its religious inclinations (Atkins and Hawdon 2007; Kurtz 2008), Polish participants in AA use prayer and attend Mass to attain spiritual experiences. It is worth noticing that the religious affiliation of all research participants was Roman Catholic. Furthermore, Poland is a very religious country. Attendance at religious services at least monthly has been reported by 61% of Poles, which is the highest level in Europe. Daily prayer was reported in 27% of the Polish population<sup>4</sup>.

Prayer is an important spiritual practice in the recovery process for alcohol-addicted individuals (Koski-Jännes and Turner 1999); step eleven of the 12-step program encourages Alcoholics Anonymous participants “through prayer and meditation to improve conscious contact with God” and has been positively related to meaning in life (Carroll 1993). Additionally, in a sample of Polish participants in Sex and Love Addicted Anonymous using a

12-step program adapted from Alcoholics Anonymous, prayer but not Mass attendance was a predictor of spiritual experiences (Wnuk 2017).

Hypothesis 2 was confirmed, identifying abstinence as a consequence of spiritual experiences related to the happiness of AA participants. More frequent spiritual experiences are related to longer abstinence, the consequence of which is the participant feeling happier. These results correspond with the previous studies suggesting that spiritual involvement is connected with maintaining abstinence (Poage et al. 2004; Carroll 1993; Zemore 2007; Polcin and Zemore 2004; Rush 2000), which in turn correlates with the wellbeing of alcohol-addicted individuals (Kairouz and Dube 2000; Donovan et al. 2005; Foster et al. 1998, 1999; Kelly et al. 2018). They also agree with recent research by Wnuk (2021a), emphasizing the beneficial role of spirituality for wellbeing in AA participants regardless of the wellbeing indicators employed. In this study, three indicators of one latent happiness variable were applied, in contrast to the above project where a negative wellbeing measure including aspects such as hopelessness was used.

Most of the relevant research has used abstinence as a recovery indicator. Kelly et al. (2018) proved that relationships between abstinence and two quality of life indicators, i.e., self-esteem and happiness, had no linear character and were dependent on sex and race. Amodeo et al. (1992) found that the relationship between the length of abstinence and life satisfaction was curvilinear. Abstinence as a factor is necessary but insufficient to achieve sobriety; the two concepts should not be used interchangeably. Sobriety assumes a positive mental, emotional, and spiritual state of mind, stressing deep transformation and relying on better access to emotions and more effective emotional regulation (Helm 2019). Happiness is a manifestation of sobriety and abstinence duration was on the border of weak and moderate strength for predicting this variable.

Hypothesis 3, regarding the indirect link between spiritual experiences and happiness of AA via optimism, was also confirmed. Similar to a sample of women diagnosed with postpartum depression (Cheadle and Schetter 2018), among Ghanaian older adults (Aglozo et al. 2021), and in a sample of codependent individuals participating in Al.-Anon (Wnuk et al. 2009), spirituality was indirectly related to wellbeing via optimism. This indicates that in a sample of alcohol-addicted individuals, optimism as a consequence of spiritual growth is an important factor in recovery measured by the subjective feeling of happiness (Strack et al. 1987). Hypothesis 4, the indirect relationship between religious practices and happiness, was also positively verified. In accordance with expectations, prayer and Mass attendance were indirectly linked with happiness through the pathways spiritual experiences–optimism and spiritual experiences–abstinence duration. It is worth noting that the specific indirect effect related to happiness via optimism was in cases stronger in comparison than the strength of these effects via abstinence duration. This shows that involvement in religious practices and spiritual growth more beneficial for happiness through optimism than the same mechanism via abstinence duration.

The results of this research can be explained within social learning theory (Bandura 1986), which is a good framework for considering the psycho-socio-spiritual transformation of AA participants (Kaskutas 2009; Smith 2021). The main aims of AA are to stay sober and to help other alcoholics achieve sobriety (Alcoholics Anonymous 2001). The way to achieve these aims is to build bonds with other AA members and God as sources of support, facilitating a feeling of connection with other people and God as an element of spiritual growth. As was shown in this study, this can be realized by religious practices. Relationships with other AA participants are a good opportunity to learn how to stay sober. Spiritual growth is a framework for building mutual trust, support, and open-to-learning ties within AA. Sponsorship is a prominent opportunity to help other self-help group participants with short careers in AA to stay sober. In the process of mutual exchange both sponsor and sponsee can learn ways to maintain alcohol abstinence and build an optimistic attitude. In this relationship, sharing experiences and giving examples represent chances to model effective pro-abstinence and optimistic cognitive schema and behaviors. During AA meetings and other public and private AA activities, participants are given the chance to

engage in social learning with a sober and optimistic approach to living, based on examples of “old-timers” who are reliable as real witnesses of their own transformation and that of their colleagues.

The research conducted here yields some theoretical implications. First, the beneficial function of religious practices for spiritual growth within religious spirituality (Wnuk 2021b) was confirmed for alcohol-addicted individuals participating in AA. Religious and spiritual commitment were identified as positive factors for the happiness of AA members. Spiritual mechanisms underlying the links between religiosity, spirituality, and AA participants’ happiness were examined and explained. In this group, spiritual experiences were indirectly related to happiness through abstinence and optimism. This means that among Anonymous Alcoholics participants spiritual experiences are beneficial for the maintenance of abstinence and optimism, which in turn are positively correlated with happiness. Additionally, two mechanisms of the indirect effects of religious practices on happiness were identified through two pathways; spiritual experiences and abstinence, as well as spiritual experiences and optimism. AA participants who used religious practices more frequently felt spiritual experiences, which in turn were positively linked with abstinence and optimism, and finally, through these variables, with happiness.

Practical implications of the reported studies are addressed mainly to therapists, social workers, and priests who have contact with individuals addicted to alcohol. The results indicate that religious and spiritual experiences can have a significant supporting role in recovery processes among alcohol addicts. Religious individuals addicted to alcohol should especially be engaged in religious practices as an important source of spiritual experiences. Non-religious individuals, agnostics, and atheists should participate in secular practices and exercises such as meditation, contemplation yoga, mindfulness, etc., to improve their spirituality.

In their therapeutic actions, experts, therapists, and psychologists should focus on preparing and implementing programs and therapeutic interventions based on improving spirituality and optimism. Furthermore, combining therapeutic actions with participation in self-help groups can yield better effects than using only one form of support.

## 6. Limitations and Future Research

The conducted studies had certain limitations, one of which is the external validity of their results that may apply only to this population. Secondly, the studies were cross-sectional, not longitudinal, which is why we cannot analyze the described relationships from the perspective of cause-and-effect. The applied research method points to the direction of the relationship between the analyzed variables, finding that spiritual experiences as an effect of religious practices, through optimism and abstinence were indirectly related to happiness in AA participants. The sample was relatively small, and bootstrapping was required. Additionally, optimism was measured using only one item.

Future research should focus on other groups of alcohol addicts outside the AA environment, in another cultural context, in countries without such religious involvement as Poland, representative of denominations and religions other than Roman Catholic, in subjects addicted to drugs, sex, etc., and using other potential secular antecedents of spiritual experiences. It will be interesting to observe the mechanisms of the indirect impact of spiritual experiences on happiness through abstinence and optimism in another group of addicted individuals, regardless of the form of addiction, religious affiliation, or self-help group affiliation.

**Funding:** This study was funded by authors sources.

**Institutional Review Board Statement:** Ethical review and approval were waived for this study, due to non-potential harming influence.

**Data Availability Statement:** The data presented in this study are available on request from the corresponding author. The data are not publicly available due to privacy of the participants.

**Conflicts of Interest:** The authors declare no conflict of interest.

## Notes

- <sup>1</sup> <http://www.parpa.pl/index.php/33-analizy-badania-raporty/132-statystyki> (accessed on 22 May 2022).
- <sup>2</sup> [https://episkopat.pl/wp-content/uploads/2018/02/Narodowy\\_Program\\_Trzezwosci.pdf](https://episkopat.pl/wp-content/uploads/2018/02/Narodowy_Program_Trzezwosci.pdf) (accessed on 22 May 2022).
- <sup>3</sup> <https://www.parpa.pl/index.php/wspolnota-aa/163-wspolnota-anonimowych-alkoholikow> (accessed on 22 May 2022).
- <sup>4</sup> <https://www.pewforum.org/2018/10/29/eastern-and-western-europeans-differ-on-importance-of-religion-views-of-minorities-and-key-social-issues/> (accessed on 22 May 2022).

## References

- Aglozo, Eric Yao, Charity Sylvia Akotia, Annabella Osei-Tutu, and Francis Annor. 2021. Spirituality and subjective well-being among Ghanaian older adults: Optimism and meaning in life as mediators. *Aging & Mental Health* 25: 306–15. [\[CrossRef\]](#)
- Alcoholics Anonymous. 2001. *Alcoholics Anonymous: The Story of How Many Thousands of Men and Women Have Recovered from Alcoholism*, 4th ed. New York: Alcoholics Anonymous World Services.
- Amodeo, Maryann, Norman Kurtz, and Henry S. G. Cutter. 1992. Abstinence, reasons for not drinking, and life satisfaction. *International Journal of the Addictions* 27: 707–16. [\[CrossRef\]](#) [\[PubMed\]](#)
- Atkins, Randolph G., Jr., and James E. Hawdon. 2007. Religiosity and participation in mutual-aid support groups for addiction. *Journal of Substance Abuse Treatment* 33: 321–31. [\[CrossRef\]](#)
- Bandura, Albert. 1986. *Prentice-Hall Series in Social Learning Theory. Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs: Prentice-Hall, Inc.
- Brown, Anthony E., Valory N. Pavlik, Ross Shegog, Simon N. Whitney, Lois C. Friedman, Catherine Romero, George Christopher Davis, Irina Cech, Thomas R. Kosten, and Robert J. Volk. 2007. Association of spirituality and sobriety during a behavioral spirituality intervention for twelve step (TS) recovery. *The American Journal of Drug and Alcohol Abuse* 33: 611–17. [\[CrossRef\]](#) [\[PubMed\]](#)
- Carroll, Stephanie. 1993. Spirituality and purpose in life in alcoholism recovery. *Journal of Studies on Alcohol* 54: 297–301. Available online: <https://www.jsad.com/doi/10.15288/jsa.1993.54.297> (accessed on 22 May 2022). [\[CrossRef\]](#) [\[PubMed\]](#)
- Carter, Tayla M. 1998. The effect of spiritual practices to recovery from substance abuse. *Journal of Psychiatric and Mental Health Nursing* 5: 409–13. [\[CrossRef\]](#)
- Cawley, Nik. 1997. An exploration of the concept of spirituality. *International Journal of Palliative Nursing* 3: 31–36. [\[CrossRef\]](#)
- Cheadle, Alyssa C. D., and Christine Dunkel Schetter. 2018. Mastery, self-esteem, and optimism mediate the link between religiosity and spirituality and postpartum depression. *Journal of Behavioral Medicine* 41: 711–21. [\[CrossRef\]](#)
- Czapinski, Janusz. 1992. *Psychology of Happiness: Research Review and Outline of the Onion Theory*. Warszawa: Akademos.
- Donovan, Dennis, Margaret E. Mattson, Ron A. Cisler, Richard Longabaugh, and Allen Zweben. 2005. Quality of life as an outcome measure in alcoholism treatment research. *Journal of Studies on Alcohol Supplement* 15: 119–39. [\[CrossRef\]](#)
- Dyson, Judith, Mark Cobb, and Dawn Forman. 1997. The meaning of spirituality: A literature review. *Journal of Advanced Nursing* 26: 1183–88. [\[CrossRef\]](#)
- Foster, John H., Elizabeth Marshall, Rhonda Hooper, and Tim J. Peters. 1998. Quality of life measures in alcohol dependent subjects and changes with abstinence and continued heavy drinking. *Addiction Biology* 3: 321–232. [\[CrossRef\]](#) [\[PubMed\]](#)
- Foster, John H., Jane E. Powell, Elizabeth Marshall, and Tim J. Peters. 1999. Quality of life in alcohol-dependent subjects—A review. *Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care and Rehabilitation* 8: 255–61. [\[CrossRef\]](#) [\[PubMed\]](#)
- Geppert, Cynthia, Michael P. Bogenschutz, and William R. Miller. 2007. Development of a bibliography on religion, spirituality and addictions. *Drug and Alcohol Review* 26: 389–95. [\[CrossRef\]](#)
- Hayes, Andrew F. 2013. *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*. New York: Guilford Press.
- Helm, Paula. 2019. Sobriety versus abstinence. How 12-stepper negotiate long-term recovery across groups. *Addiction Research and Theory* 27: 29–36. [\[CrossRef\]](#)
- Hill, Peter C., Kenneth I. Pargament, Ralph W. Hood, Michael E. McCullough, James P. Swyers, David B. Larson, and Brian J. Zinnbauer. 2000. Conceptualizing religion and spirituality: Points of commonality, points of departure. *Journal for the Theory of Social Behaviour* 30: 51–77. [\[CrossRef\]](#)
- Kairouz, Sylvia, and Lise Dube. 2000. Abstinence and well-being among members of Alcoholics Anonymous: Personal experience and perceptions. *Journal of Social Psychology* 140: 565–79. [\[CrossRef\]](#)
- Kaskutas, Lee Ann. 2009. Alcoholics anonymous effectiveness: Faith meets science. *Journal of Addictive Diseases* 28: 145–57. [\[CrossRef\]](#)
- Kaskutas, Lee Ann, Jason Bond, and Keith Humphreys. 2002. Social networks as mediators of the effect of Alcoholics Anonymous. *Addiction* 97: 891–900. [\[CrossRef\]](#) [\[PubMed\]](#)
- Kelly, John F., Bettina B. Hoepfner, Robert L. Stout, and Maria Pagano. 2012. Determining the relative importance of the mechanisms of behavior change within Alcoholics Anonymous: A multiple mediator analysis. *Addiction* 107: 289–99. [\[CrossRef\]](#)
- Kelly, John F., Claire M. Greene, and Brandon G. Bergman. 2018. Beyond abstinence: Changes in indices of quality of life with time in recovery in a nationally representative sample of U.S. adults. *Alcoholism, Clinical and Experimental Research* 42: 770–80. [\[CrossRef\]](#)

- Koski-Jännes, Anja, and Nigel Turner. 1999. Factors influencing recovery from different addictions. *Addiction Research* 7: 469–92. [CrossRef]
- Krentzman, Amy R., James A. Cranford, and Elizabeth Robinson. 2013. Multiple dimensions of spirituality in recovery: A lagged mediational analysis of Alcoholics Anonymous' principal theoretical mechanism of behavior change. *Substance Abuse* 34: 20–32. [CrossRef] [PubMed]
- Krentzman, Amy R., Stephen Strobbe, J. Irene Harris, Jennifer M. Jester, and Elizabeth Robinson. 2017. Decreased drinking and alcoholics anonymous are associated with different dimensions of spirituality. *Psychology of Religion and Spirituality* 9: S40–S48. [CrossRef] [PubMed]
- Kurtz, Ernest. 2008. *Spiritual Rather Than Religious: The Contribution of Alcoholics Anonymous*. The Collected Ernie Kurtz, Hindsfoot Foundation Series on Treatment and Recovery; New York: Authors Choice, pp. 51–62.
- Laustalot, Fleetwood V., Sharon B. Wyatt, Barbara Boss, and Tina McDyess. 2006. Psychometric examination of the Daily Spiritual Experiences Scale. *Journal of Cultural Diversity* 13: 162–67.
- Mankowski, Eric S., Keith Humphreys, and Rudolf H. Moos. 2001. Individual and contextual predictors of involvement in twelve-step self-help groups after substance abuse treatment. *American Journal of Community Psychology* 29: 537–63. [CrossRef] [PubMed]
- Mardia, Kanti V. 1970. Measures of Multivariate Skewness and Kurtosis with applications. *Biometrika* 57: 519–30. [CrossRef]
- Martsof, Donna Steele, and Jacqueline R. Mickley. 1998. The concept of spirituality in nursing theories: Differing world-views and extent of focus. *Journal of Advanced Nursing* 22: 294–303. [CrossRef]
- McClure, Poul K., and Lindsay R. Wilkinson. 2020. Attending substance abuse groups and identifying as spiritual but not religious. *Review of Religious Research* 62: 197–218. [CrossRef]
- Pallant, Julie. 2016. *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS Program*, 6th ed. London: McGraw-Hill Education.
- Pardini, Dustin A., Thomas G. Plante, Allen Sherman, and Jamie E. Stump. 2000. Religious faith and spirituality in substance abuse recovery: Determining the mental health benefits. *Journal of Substance Abuse Treatment* 19: 347–54. [CrossRef]
- Pargament, Kenneth I. 1999. The psychology of religion and spirituality? Yes and no. *International Journal for the Psychology of Religion* 9: 3–16. [CrossRef]
- Poage, E. Don, Kay E. Ketzenberger, and James Olson. 2004. Spirituality, contentment, and stress in recovering alcoholics. *Addictive Behaviors* 29: 1857–62. [CrossRef]
- Podsakoff, Philip M., Scott B. MacKenzie, Jeong-Yeon Lee, and Nathan P. Podsakoff. 2003. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *The Journal of Applied Psychology* 88: 879–903. [CrossRef] [PubMed]
- Polcin, Douglas L., and Sarah Ziemore. 2004. Psychiatric severity and spirituality, helping, and participation in alcoholics anonymous during recovery. *The American Journal of Drug and Alcohol Abuse* 30: 577–92. [CrossRef] [PubMed]
- Rush, Mary McGrath. 2000. Power, spirituality, and time from a feminist perspective: Correlates of sobriety in a study of sober female participants in Alcoholics Anonymous. *Journal of American Psychiatric Nurses Association* 6: 106Y202. [CrossRef]
- Smith, Mark A. 2021. Social Learning and Addiction. *Behavioural Brain Research* 398: 112954. [CrossRef] [PubMed]
- Strack, Stephen, Charles S. Carver, and Paul H. Blaney. 1987. Predicting successful completion of an aftercare program following treatment for alcoholism: The role of dispositional optimism. *Journal of Personality and Social Psychology* 53: 579–84. [CrossRef]
- Suire, Jared G., and Robert K. Bothwell. 2006. The Psychosocial Benefits of Alcoholics Anonymous. *The American Journal on Addictions* 15: 252–55. [CrossRef] [PubMed]
- Tadeusz, A. A. 2012. *History of AA in Poland*. Warszawa: Fundacja Biura Służby Krajowej Anonimowych Alkoholików.
- Twelve Steps and Twelve Traditions. 1987. *Twelve Steps and Twelve Traditions*. New York: Alcoholics Anonymous Inc.
- Underwood, Lynn G., and Jeanne A. Teresi. 2002. The Daily Spiritual Experience Scale: Development, theoretical description, reliability, exploratory factor analysis, and preliminary construct validity using health-related data. *Annals of Behavioral Medicine* 24: 22–33. [CrossRef]
- Ugochukwu, Chio, Kara Simone Bagot, Sibylle Delaloye, Sarah Pi, Linda Vien, Tim Garvey, Nestor Ian Bolotaulo, Nishant Kumar, and Waguiah William IsHak. 2013. The importance of quality of life in patients with alcohol abuse and dependence. *Harvard Review of Psychiatry* 21: 1–17. [CrossRef]
- Wnuk, Marcin. 2009. Skala Codziennych Doświadczeń Duchowych jako wiarygodne i rzetelne narzędzie do mierzenia aktywności sfery duchowej. *Przegląd Religioznawczy* 4: 89–105.
- Wnuk, Marcin. 2017. Spiritual experiences as a mediator between faith as well as religious practices and hope among sex addicted individuals from Poland participating in Sex and Love Addicts Anonymous (SLAA). *Clinical Psychiatry* 3: 14. Available online: <https://www.primescholars.com/articles/spiritual-experiences-as-a-mediator-between-faith-as-well-as-religious-practices-and-hope-among-sex-addicted-individuals-104717.html> (accessed on 22 May 2022). [CrossRef]
- Wnuk, Marcin. 2021a. Indirect relationship between Alcoholics Anonymous spirituality and their hopelessness: The role of meaning in life, hope, and abstinence duration. *Religions* 12: 934. [CrossRef]
- Wnuk, Marcin. 2021b. Do involvement in Alcoholics Anonymous and religiousness both directly and indirectly through meaning in life lead to spiritual experiences? *Religions* 12: 794. [CrossRef]
- Wnuk, Marcin. 2022. The beneficial role of involvement in Alcoholics Anonymous for existential and subjective well-being of alcohol-dependent individuals? The model verification. *International Journal of Environmental Research and Public Health* 19: 5173. [CrossRef]

- 
- Wnuk, Marcin, Jerzy T. Marcinkowski, and M. Hedzelek. 2009. Indirect relationship between spiritual experiences and wellbeing among co-dependent persons. *Psychiatry* 6: 82–90.
- Wulff, David M. 1991. *Psychology of Religion: Classic and Contemporary Views*. New York: John Wiley & Sons.
- Zemore, Sarah E. 2007. A role for spiritual change in the benefits of 12-step involvement. *Alcoholism, Clinical Experimental Research* 31: 76SY79S. [[CrossRef](#)]