

Article

The Loss of Self-Dignity and Anger among Polish Young Adults: The Moderating Role of Religiosity

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Abstract: Does the way we think or feel about ourselves have an impact on our anger-based reactions? Is the direction and strength of this relationship direct, or affected by other factors as well? Given that there is a lack of research on the loss of self-dignity and anger, the first aim of the present study consisted in examining whether or not there is a connection between both variables, with particular emphasis on early adulthood. The second purpose was to explore the moderating role of religiosity on the relationship between loss of self-dignity and anger. Methods: Data were gathered from 462 participants aged 18 to 35. The main methods applied were the Questionnaire of Sense of Self-Dignity, Buss–Perry Aggression Questionnaire, and Religious Meaning System Questionnaire. The results show a statistically significant positive correlation between loss of self-dignity and anger, a negative correlation between religiosity and anger, and no significant association between the loss of self-dignity and religiosity. However, all other dimensions of the sense of self-dignity correlated positively with religiosity. Our findings also confirm that the level of anger resulting from the loss of self-dignity is significantly lower as the level of religiosity increases. Such outcomes seem to support the conception that religiosity may act as a protective factor between the risk (loss of self-dignity) and the outcome factor (anger).

Keywords: loss of self-dignity; anger; religiosity; young adults



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1. Introduction

Does the way we think or feel about ourselves have an impact on our angry reactions? Is the direction and strength of this relationship direct or affected by other factors as well? Given that there is a lack of research on the loss of self-dignity and anger, the first aim of the present study consisted in examining whether or not there is a connection between both variables, with particular emphasis on early adulthood. Past research has shown many antecedents, mediators, and moderators of anger (Mill et al. 2018), differentiating them into dispositional processes and/or situational events. However, self-dignity or its loss have not been considered as potential correlates of anger, although, as Kuppens and Tuerlinckx (2007) have observed, aspects of personality connected to self-esteem seem to be particularly pertinent for its occurrence. The second purpose of our research was to explore the moderating role of religiosity on the relationship between loss of self-dignity and anger. The rationale behind this assumption is based on (non)experimental studies showing that while intrinsically oriented religious individuals tend to report lower aggression or anger (Leach et al. 2008; Merrill et al. 2009; Vishkin et al. 2020), those who experience religious/spiritual struggle display higher levels of being angry (Exline et al. 2017).

1.1. Anger, Age, and Self-Dignity

Anger is widely recognized by psychologists representing different traditions as one of the basic and complex emotions (Keltner et al. 2019; Ortony and Turner 1990; Williams 2017; Tracy and Robins 2004; Turner et al. 2007; Schieman 2003) with a rather negative

connotation (Averill 1983; Halperin and Gross 2011; Harmon-Jones 2003; Christensen et al. 2019; Mill et al. 2018). It may emerge when goal pursuit becomes frustrated (Schmitt et al. 2018; Fischer and Roseman 2007) as well as in response to an unpleasant, unjust, or adverse circumstance for which another person is accountable (Kuppens et al. 2007; Berkowitz 2012). Berkowitz and Harmon-Jones (2004, p. 108) define anger as “a syndrome of relatively specific feelings, cognitions, and physiological reactions linked associatively with an urge to injure some target”. Clore et al. (1993) link anger with the perception and attributions of blame.

Hamdan-Mansour and colleagues (2012) assert that anger is experienced by most individuals throughout their lives, and many of them declare having problems with its control. More specifically, there is some empirical evidence that young adults report higher levels of anger than their older counterparts (Birditt and Fingerman 2003; Blanchard-Fields and Coats 2008; Mienaltowski et al. 2011; Kunzmann et al. 2014). These findings seem to provide strong support for socioemotional selectivity theory (Carstensen et al. 1999, 2000, 2003), which states that over time, people start to value the most important aspects of life, give them meaning, and are able to better regulate their own emotional states. Consequently, the higher focus of older adults on managing their emotions is associated with diminution in the frequency and duration of their negative emotions, such as anger (Fung et al. 2019).

Research on the causes of anger (Schieman 2003; Okuda et al. 2016; Zhu et al. 2018; Jensen-Campbell et al. 2007; Fava and Rosenbaum 1999; Pawliczek et al. 2013; Novaco and Chemtob 2002) suggests that angry reactions are associated with a wide spectrum of situational and dispositional factors (Mill et al. 2018) such as sociodemographic characteristics (e.g., age or social status), physical discomfort (headache or arthritis), emotional states (e.g., shame, frustration, contempt, or resentment), personality traits (e.g., agreeableness or conscientiousness), and psychiatric disorders (e.g., depression or post-traumatic stress). Moreover, different studies of the appraisal features responsible for anger (Baumeister et al. 1996; Kuppens and Tuerlinckx 2007; Kuppens and Van Mechelen 2007; Kuppens et al. 2007; Turner et al. 2007) indicate the threat to self-esteem as one of its most relevant components.

The sense of self-dignity is considered to be a subjective conviction of people that they are valuable and deserve regard from others (Brudek and Steuden 2017a). Jacelon (2003) perceives self-dignity both as an internal concept, referring to an individual's self-worth, and an interpersonal or social construct, meaning respect given to us by others. A sense of self-dignity is also understood as a multidimensional concept. Brudek and Steuden (2017b) present a model of self-dignity that includes cognitive, axiological, relational, and experience aspects. The cognitive facet refers to respect for oneself deriving from the hierarchy of values considered significant and adopted in one's own life. The axiological aspect manifests itself especially in difficult situations where people have the opportunity to make different choices in line with or contradicting their personally accepted values. When they differ from the established hierarchy, it can lead to the loss of the sense of self-dignity. A loss of self-dignity may arise from adverse or harmful comments or unpleasant or unjust behaviors as well (Grudziowska and Mikołajczyk 2020). The relational aspect is associated with the interpersonal level and the role of self-dignity in building social interactions. Finally, the dimension of experiencing self-dignity refers to the personal engagement in reflection on their dignity.

Considering that self-dignity is a psychological variable related to self-esteem (Kozi- elecki 1977; Grudziowska and Mikołajczyk 2020), we are relying on the research in which this relationship has been studied. For example, Fehr et al. (1999) have reported the threat to self-esteem as one of the most common causes of anger. Kuppens and Van Kuppens and Van Mechelen (2007) have observed that frequently experienced threats to self-esteem may lead an individual to diminish their sense of self-worth, and thus, to a higher propensity to feel anger. Individuals with lower levels of self-esteem have been found to experience greater anger both as children/adolescents (Waschull and Kernis 1996) and adults (Kuppens and Tuerlinckx 2007; Park et al. 2007). Other studies have revealed (Barry et al.

2015; Perez et al. 2005; Roberts et al. 1995) that fragile, labile, and unstable self-esteem positively correlates with proactive and reactive aggression. Anger can also be related to the defense of self-image (Lazarus 1993; Gausel and Bourguignon 2020), since the feeling of being blamed, rejected, devalued, or condemned may lead to angry reactions or other anti-social behaviors (Gausel and Leach 2011), such as a prejudiced valuation of others (Fein and Spencer 1997). Therefore, on the bases of the abovementioned literature, we hypothesized that:

Hypothesis 1 (H1). *A loss of self-dignity would positively correlate with anger.*

1.2. Religiosity, Anger, and Self-Dignity

Religiosity, considered to be one of the most powerful forces of human beings (Emmons and Paloutzian 2003), has been found to be a positive predictor of different criteria of psychological well-being (Jackson and Bergeman 2011; Villani et al. 2019), and mental, physical, and social health (Cragun et al. 2016; Parker et al. 2003; Son and Wilson 2011; Zimmer et al. 2018). The world's main religions teach their followers to abstain from anger (Vishkin et al. 2020). As indicated by Vishkin and colleagues (Vishkin 2020; Vishkin et al. 2016), religion affects or alters the process of efficient emotion regulation. For example, according to Ano and Vasconcelles (2005), negative forms of religious coping correlate with anger and other signs of emotional strain. Prayer, understood as a form of religiosity, seems to be a constructive method of reducing anger (Bremner et al. 2011). In fact, Koole et al. (2010) propose a theoretical model that associates religiosity with the implicit self-regulation that leads individuals to the realization of high standards. Moreover, self-worth based on religious beliefs may reduce aggressive emotions and behaviors (Crocker et al. 2004). However, there is still some research that supports the positive association between religiosity/spirituality and the experience of anger among college students (Winterowd et al. 2005) and adolescents (Carlozzi et al. 2010). Furthermore, some studies show that religiosity is not significantly associated with anger (Stroope et al. 2020). Although the results of previous studies are somewhat contradictory, most of them confirm the traditional role of religion in guiding behavior and adhering to values. Based on this classical approach to religiosity, we assumed that:

Hypothesis 2 (H2). *Religiosity would negatively correlate with anger.*

Religiosity is also regarded as an important factor having a significant impact on self-dignity (Brudek and Steuden 2017a; Jo et al. 2012). In fact, Christian teachings connect human dignity to the biblical concept of people as created in the image of God, and thus being worthy of respect (Vorster 2012). Crocker et al. (2004) affirm that in different religious meaning systems, one's worth is related to the fact of being human. On the one hand, the sense of self-worth is positively associated with images of God perceived as loving and compassionate (Francis et al. 2001; Park et al. 2007). Further, there is strong evidence that internalized and committed religiousness is moderately positively (0.30–0.40) correlated with self-esteem (Blaine and Crocker 1995; Szcześniak and Timoszyk-Tomczak 2020; Sherkat and Reed 1992) and feelings of self-worth (Krause 1995). Religious people in religious cultures self-enhance in areas essential to their self-concept more than their counterparts in secular cultural contexts (Sedikides and Gebauer 2020; Joshanloo and Gebauer 2019). In a Polish sample, experience of God's love was one of the conditions for self-esteem in women (Mandal and Moron 2019). On the other hand, some studies suggest that individuals who are more religiously involved have less positive self-worth (Krause 1995). Such a discrepancy may be due to the fact that religiosity is a broad multidimensional reality that may affect self-esteem differently. By combining the above assumptions with the hypothetical relationship between religiosity and anger, we assumed that:

Hypothesis 3 (H3). *The loss of self-dignity would be a mediator between religiosity and anger.*

We expected a negative association between religiosity and the loss of self-dignity, assuming that religious people, perhaps due to religious teachings, would tend to experience lower loss of self-dignity and, in turn, experience less anger.

Lastly, some findings suggest that religiosity provides a buffer against a broad variety of negative outcomes, such as stress (Mascaro and Rosen 2006; Ellison et al. 2019), depression (Ahles et al. 2016), and anxiety (Wink and Scott 2005; Soenke et al. 2013; Piotrowski et al. 2020). This is because people may rely on religion as a means of making or finding a sense of meaning in otherwise meaningless circumstances (Hayes et al. 2017). For example, several studies argue that religiosity acts as a moderator in the relationship between self-efficacy and traumatic stress (Israel-Cohen et al. 2016); sensation-seeking, bullying victimization, and substance use (Galbraith and Conner 2015); job strain, income inequality, and well-being (Achour et al. 2016; Joshanloo and Weijers 2016); and antisocial behavior and self-control (Laird et al. 2011). The common feature of these studies is that people in difficult situations believe that no matter how difficult their lives are, God can be their support and help (Joshanloo and Weijers 2016). The lack of unambiguous premises regarding the relationship between loss of self-dignity, religiosity, and anger may lead to considerations on the moderating role of religiosity. In other words, the degree of religious commitment can play a significant role in manifesting the anger that results from losing one's self-esteem. Therefore, we assumed that religious beliefs could moderate the effect of the loss of self-dignity on feelings of anger, thus showing that the influence of religion on self-dignity may result in lower levels of anger. We hypothesized that:

Hypothesis 4 (H4). *The level of anger resulting from loss of self-esteem would be significantly different at different levels of religiosity.*

2. Materials and Methods

2.1. Ethics Approval

This research was approved by the Bioethics Committee of the Institute of Psychology at the University of Szczecin (KB12/2020) and was performed in conformity with the Declaration of Helsinki.

2.2. Participants

Data were gathered from 462 participants aged 18 to 35 ($M = 21.26$; $SD = 3.55$). The study included 326 women (70.6%) and 136 men. In the entire research sample, two people had primary education (0.4%), 41 people lower secondary education (8.8%), 10 basic vocational education (2.2%), 322 secondary education (69.7%), and 87 people higher (18.8%). All participants ($N = 462$) were assigned to three equal subgroups ($n = 154$) in terms of their declared degree of religiosity: (1) non-believers, (2) non-practicing believers, and (3) practicing believers. All believers were Roman Catholic. The detailed characteristics of the three selected subgroups in terms of the basic demographic variables are presented in Table 1.

2.3. Data Collection

The respondents were voluntarily recruited to participate in the study through information posted on forums and social media websites. Before completing the online survey, each participant was informed about the scientific purpose of the research and was assured about the full anonymity and confidentiality of the collected data. The study was intended for adults over 18 years of age.

2.4. Questionnaire of Sense of Self-Dignity (QSSD-3)

The Questionnaire of Sense of Self-Dignity (Brudek and Steuden 2017b) is a four-factor tool to measure the overall level of an individual's sense of self-dignity and its four dimensions—cognitive, loss, relational, and experience. The cognitive dimension determines the way of understanding and the meaning attached to self-dignity. It also

refers to the acknowledgment of self-dignity as a font of confidence that enables people to successfully realize personal goals even in difficult times in their life (e.g., “a manifestation of the sense of self-dignity is the awareness of self-worth and self-respect”). The dimension of loss of self-dignity determines the situations of loss of self-dignity by an individual and to what extent non-compliance with one’s own system of values is associated with the loss of self-dignity. It reflects the emotions and attitudes that individuals assign to themselves (e.g., “in difficult situations, a sense of my own dignity bothers me”). The relational dimension reflects the degree of the individual’s awareness of the role played by the sense of self-dignity in building interpersonal relationships and in overall psychosocial functioning (e.g., “the awareness that others recognize my dignity helps me in my life”). The experience dimension determines the extent to which an individual reflects on the sense of their own dignity in crisis and difficult situations (e.g., “in moments of various choices and decisions appear in me questions about my own dignity”). The QSSD-3 consists of 36 items, which are answered using a five-point scale (from 1 = yes to 5 = no). The tool obtained satisfactory values of Cronbach’s alpha reliability indices for the overall score—a total sense of self-dignity ($\alpha = 0.89$), and four dimensions – cognitive ($\alpha = 0.83$), loss ($\alpha = 0.80$), relational ($\alpha = 0.83$), and experiencing ($\alpha = 0.71$). In addition, the questionnaire obtained satisfactory values of selected indicators of goodness of fit using confirmatory factor analysis ($\chi^2(584) = 1106.69$, $p < .001$; CMIN/DF = 1.895; RMSEA = 0.044; GFI = 0.877; AGFI = 0.859; TLI = 0.878; IFI = 0.888).

Table 1. Demographic characteristics of the members of the subgroups selected in the study ($N = 462$).

	Non-Believers ($n = 154$)	Non-Practicing Believers ($n = 154$)	Practicing Believers ($n = 154$)
Age	18–35 ($M = 21.09$; $SD = 3.39$)	18–35 ($M = 21.49$; $SD = 3.66$)	18–35 ($M = 21.21$; $SD = 3.61$)
Sex	100 women (64.9%) 54 men (35.1%)	103 women (66.9%) 51 men (33.1%)	123 women (79.9%) 31 men (20.1%)
Education level	0 primary (0%) 13 lower secondary (8.4%) 4 vocational (2.6%) 110 secondary (71.4%) 27 higher (17.5%)	1 primary (0.6%) 14 lower secondary (9.1%) 4 vocational (2.6%) 104 secondary (67.5%) 31 higher (20.1%)	1 primary (0.6%) 14 lower secondary (9.1%) 2 vocational (1.3%) 108 secondary (70.1%) 29 higher (18.8%)

2.5. Buss–Perry Aggression Questionnaire

The results of one of the subscales of the Buss–Perry Aggression Questionnaire (Amity version 2005) were used to measure anger. The BPQA is used to identify various aggressive tendencies—physical and verbal aggression, anger and hostility. The questionnaire consists of 29 self-report statements, which are answered using a five-point Likert-type scale (from 1 = does not fit me at all to 5 = fits me completely). The tool obtained satisfactory values of Cronbach’s alpha reliability indicators in the range of 0.67–0.83 for individual subscales (physical aggression—0.83; verbal aggression—0.67; anger—0.75; hostility—0.74) and 0.87 for the entire questionnaire. Moreover, the test obtained good values of the model fit indices ($\chi^2(365) = 1146.12$, $p < .001$; CMIN/DF = 3.14; RMSEA = 0.068; GFI = 0.845; AGFI = 0.815; TLI = 0.793; IFI = 0.816).

2.6. Religious Meaning System Questionnaire (RMS)

The Religious Meaning System Questionnaire (Krok 2014) was used to determine the degree of religiosity of the three research subgroups (non-believers, non-practicing believers, and practicing believers). The RMS consists of two factors (religious orientation, religious meaning) based on 20 statements. The religious orientation scale assesses the degree to which religiosity can help individuals understand their lives. The religious meaning scale is used to measure the potential of religion to empower individuals to find

purpose in their lives. The answers are given on a seven-point scale (from 1 = definitely not to 7 = definitely yes). The tool obtained high values of reliability indicators for both subscales: religious orientation ($\alpha = 0.93$) and religious sense ($\alpha = 0.92$), as well as the overall score ($\alpha = 0.96$). The study obtained satisfactory values of selected model fit indices ($\chi^2(165) = 624.728$, $p < 0.001$; CMIN/DF = 3.786; RMSEA = 0.078; GFI = 0.869; AGFI = 0.833; TLI = 0.930; IFI = 0.940).

2.7. Statistical Analysis

The statistical analyses were performed using G*Power 3.1.9.4, IBM SPSS AMOS 24.0, and IBM SPSS Statistics 25.0 using PROCESS macro 3.4 (Hayes et al. 2017). No missing values were found in the data obtained. In the first step of the analysis, the G*Power 3.1.9.4 software was used to determine the minimum size of the research sample necessary to conduct moderation analyses of the developed models of the studied variables. The adopted a priori criteria included the low strength of the effect ($f^2 = 0.03$), the maximum value of the $\alpha = 0.05$ coefficient, and the recommended power equal to 0.80 (Anderson et al. 2017). The analysis showed the minimum size of the entire research sample for the specified criteria at the level of 368 participants.

The next steps of the analysis concerned the determination of basic descriptive statistics for all selected variables, both for the entire research sample ($n = 462$) and the three separate subgroups ($n = 154$), and checking the degree of fulfillment of the assumptions imposed on the data. The performed analyses showed the determination of the nature of the distributions of the measured variables using the Shapiro–Wilk test and the values of skewness and kurtosis, the fulfillment of the assumption of homogeneity of variance with Levene’s test, and the equivalence of the compared groups using the χ^2 test for the one-way analysis of variance (ANOVA) in the intergroup plan. Due to the failure to meet the assumption of homogeneity of variance, it was decided to perform a post hoc analysis using Tamhane’s T^2 test. To test for the presence of the common method bias of the applied measures (Jakobsen and Jensen 2015), Harman’s single-factor test was used. All of the scales’ items were introduced into an exploratory factorial analysis and examined through an unrotated factor solution. We assumed that if one component had less than 50% of the covariance, this confirmed the lack of common method bias (Rodríguez-Ardura and Meseguer-Artola 2020).

The mediation and moderation analyses of the created hypothetical models were performed using the bootstrapping method (IBM SPSS Statistics 25.0 with PROCESS macro 3.4; Hayes et al. 2017). Before the proper analysis, the degree of collinearity of the explanatory variables with the variance inflation factor (VIF) parameter and the levels of homogeneity of variance and homoscedasticity of all observations were estimated using Cook’s distance, the Mahalanobis distance, and leverage points indices. Failure to meet two of the three assumptions of the distance indicators used was adopted as the criterion for rejecting observations. For the analysis of the interactions obtained, the simple slopes analysis with unstandardized regression coefficients was used, excluding the Johnson–Neyman Technique (Johnson and Neyman 1936) due to the use of a qualitative variable as a moderator.

3. Results

3.1. Descriptive Statistics

The analysis of the distributions of the studied variables, performed for the entire research sample and the three compared groups using the Kolmogorov–Smirnov test, showed that in most cases, these distributions were statistically significantly ($p < 0.05$) different from the normal distribution (Table 2). However, the values of skewness and kurtosis for most of the variables were in the range $[-2; 2]$, which does not question the validity of using the data for further statistical analyses (George and Mallery 2016). For the loss of self-dignity variable for the entire sample and for the non-practicing believers and practicing believers groups, the kurtosis values were above the value of 2. However, due

to the relatively high resistance to breaking the assumption about the normal distribution of the measured variables for the analysis of variance (Young and Veldman 1965) and the lack of necessity to meet this criterion for bootstrapping methods, it was decided to carry out further statistical analyses without any modification of the obtained data.

Table 2. Basic descriptive statistics and the results of the Kolmogorov–Smirnov test.

Group/Variable	M	SD	Sk	Kurt	K-S
Research sample (<i>n</i> = 462)					
Loss of self-dignity	18.60	5.85	1	2.66	0.098 ***
Sense of self-dignity	106.07	20.74	0.37	−0.03	0.078 ***
Anger	20.41	5.73	0.07	−0.51	0.047 *
Religious orientation	28.23	15.09	0.65	−0.42	0.113 ***
Religious meaning	36.97	16.14	0.20	−0.97	0.072 ***
Non-believers (<i>n</i> = 154)					
Loss of self-dignity	19.12	5.94	0.81	1.89	0.071
Sense of self-dignity	103.80	20.83	0.28	0.41	0.059
Anger	20.87	6.24	0.04	−0.54	0.046
Religious orientation	16.80	8.44	1.60	2.05	0.210 ***
Religious meaning	22.01	8.66	0.65	−0.30	0.098 **
Non-practicing believers (<i>n</i> = 154)					
Loss of self-dignity	18.69	5.88	1.26	3.81	0.115 ***
Sense of self-dignity	104.45	18.63	0.59	0.16	0.076 *
Anger	20.47	5.42	−0.18	−0.42	0.065
Religious orientation	24.97	10.32	0.94	1.75	0.073 *
Religious meaning	35.51	10.22	0.07	−0.49	0.058
Practicing believers (<i>n</i> = 154)					
Loss of self-dignity	17.97	5.69	0.99	2.64	0.117 ***
Sense of self-dignity	109.97	22.18	0.23	−0.54	0.108 ***
Anger	19.88	5.48	0.28	−0.58	0.083 *
Religious orientation	42.92	12.18	0.01	−0.21	0.082 *
Religious meaning	53.40	10.32	−0.42	−0.32	0.067

Note: Sk—skewness; Kurt—kurtosis; K-S—Kolmogorov–Smirnov test; *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.

3.2. Correlations

The analysis of the correlation with the Pearson r coefficient showed a weak but statistically significant ($p < 0.01$) positive correlation between loss of self-dignity and anger ($r = 0.3$), and a negative correlation between anger and religious meaning ($r = -0.12$). The Pearson's r values turned out to be statistically insignificant ($p > 0.05$) for loss of self-dignity and religiosity (for both religious orientation $r = -0.03$ and religious meaning $r = -0.05$), and anger and religious orientation ($r = -0.08$). The results of the correlation between all measured variables are presented in Table 3. The obtained statistically insignificant or significant-but-weak correlation values between individual predictors in the form of self-dignity, the dimension of loss of self-dignity, anger, and religiosity eliminate the problem of multicollinearity and at the same time seem to confirm the validity of testing the hypothetical moderation models.

Table 3. Pearson's *r* correlation results for all measured variables.

	SD	COG	LOS	REL	EXP	P-A	V-A	ANG	HOS	RO	RM
SD	1	0.83 **	0.38 **	0.82 **	0.79 **	−0.05	0.09	0.16 **	0.12 **	0.14 **	0.15 **
COG	−	1	−0.05	0.71 **	0.48 **	−0.09	0.14 **	0.04	−0.06	0.14 **	0.15 **
LOS	−	−	1	0.03	0.39 **	0.12 **	0.04	0.30 **	0.31 **	−0.02	−0.04
REL	−	−	−	1	0.50 **	−0.12 *	0.01	0.02	−0.01	0.14 **	0.15 **
EXP	−	−	−	−	1	−0.02	0.01	0.18 **	0.23 **	0.11 *	0.13 **
P-A	−	−	−	−	−	1	0.39 **	0.42 **	0.27 **	−0.01	−0.14 **
V-A	−	−	−	−	−	−	1	0.51 **	0.34 **	−0.09	−0.16 **
ANG	−	−	−	−	−	−	−	1	0.52 **	−0.08	−0.12 **
HOS	−	−	−	−	−	−	−	−	1	−0.09	−0.12 **
RO	−	−	−	−	−	−	−	−	−	1	0.87 **
RM	−	−	−	−	−	−	−	−	−	−	1

Note: SD—sense of self-dignity; COG—cognitive dimension of self-dignity; LOS—loss of self-dignity; REL—relational dimension of self-dignity; EXP—experience dimension of self-dignity; P-A—physical aggression; V-A—verbal aggression; ANG—anger; HOS—hostility; RO—religious orientation; RM—religious meaning; ** $p < 0.01$; * $p < 0.05$.

3.3. One-Way ANOVA

To check the reliability of the answers obtained regarding the nominal variable religiosity (non-believers/non-practicing believers/practicing believers), it was decided to compare the mean scores of the religious orientation and religious meaning scales in all subgroups using a one-way ANOVA in the plan for independent groups. Due to the failure to meet the assumption of homogeneity of variance ($p < 0.05$ for Levene's test), the analysis was performed using Welch's test, which is characterized by a greater power of difference detection compared to the Brown–Forsythe test (Brown and Forsythe 1974; Welch 1951) and post hoc Tamhane's T2 test.

The results (Table 4) showed a statistically significant effect of the religious grouping variable for religious orientation ($W(2, 299) = 238.790$; $p < 0.001$) and religious meaning ($W(2, 303) = 417.401$; $p < 0.001$). Post hoc comparisons revealed statistically significant ($p < 0.001$) differences between all groups.

Table 4. Results of the one-way ANOVA and Tamhane's T2 test.

Variable	A	B	A-B	SE	<i>p</i>	W(df)
RO	N-B	N-PB	−8.18 *	1.075	<0.001	238.790(2, 299) ***
		PB	−26.12 *	1.194	<0.001	
	N-PB	N-B	8.18 *	1.075	<0.001	
		PB	−17.95 *	1.287	<0.001	
	PB	N-B	26.12 *	1.194	<0.001	
		N-PB	17.95 *	1.287	<0.001	
RM	NB	N-PB	−13.51 *	1.079	<0.001	417.401(2, 303) ***
		PB	−31.40 *	1.086	<0.001	
	N-PB	N-B	13.506 *	1.079	<0.001	
		PB	−17.890 *	1.170	<0.001	
	PB	N-B	31.396 *	1.086	<0.001	
		N-PB	17.890 *	1.170	<0.001	

Note: RO—religious orientation; RM—religious meaning; N-B—non-believers; N-PB—non-practicing believers; PB—practicing believers; W—Welch's test; *** $p < 0.001$; * $p < 0.05$.

In the case of both measured quantitative variables, the highest mean score was obtained by practicing believers, and the lowest by non-believers. As a result, it was decided to treat the nominal variable religiosity as a moderating variable in both models of moderation analysis.

The VIF score for all tested predictors (sense of self-dignity, loss of self-dignity, religious orientation, religious meaning) for the dependent variable anger was between 1.21 and 4.21 (below 10), which proves that the predictors were not correlated. Moreover, the tolerance value did not exceed 0.24, which confirmed the correct estimation of the beta coefficients of all predictors. The obtained result of the Durbin–Watson test equal to 1.92 confirms the fulfillment of the criterion of lack of correlation of regression residuals (the value ranged from 1 to 3). The applied outliers analysis using the three distance measures did not identify any influential outliers among the collected observations.

Harman's single-factor test confirmed the lack of common method bias. The measure showed the presence of one factor with 31.51% of the covariance.

3.4. Mediation Analyses

The obtained statistically insignificant results of the mediation analyses (Figure 1) were consistent with the obtained results of the correlation between the individual variables included in both tested models.

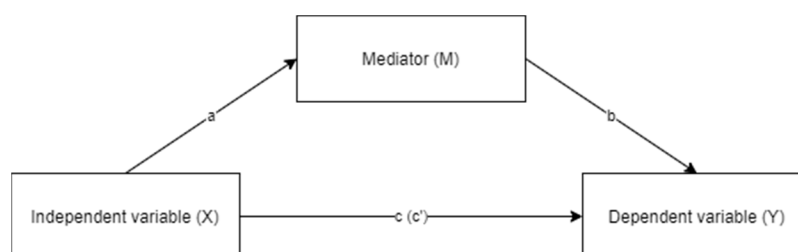


Figure 1. Diagram of the tested simple mediation model.

The first model assumed a significant mediating role of the loss of self-dignity (*M*) in the relationship between religious orientation (*X*) and anger (*Y*), while the independent variable in the second model assumed the dimension of religious meaning.

Both the first model ($F(1, 460) = 0.21$; $R^2 = 0.02$; $p > 0.05$) and the second model ($F(1, 460) = 0.74$; $R^2 = 0.04$; $p > 0.05$) were not matched to the data. The obtained results (Table 5) of individual regression coefficients turned out to be statistically insignificant ($p > 0.05$) between the independent variable and the mediator as well as between the independent variable and the dependent variable for each tested model. No significant relationship was confirmed between the loss of self-esteem and religious orientation ($b = -0.01$; $p > 0.05$; 95% CI $[-0.04; 0.03]$) and religious sense ($b = -0.01$; $p > 0.05$; 95% CI $[-0.05; 0.02]$).

Table 5. Results of the performed mediation analysis.

Model	X	M	Y	a	b	c	c'	Indirect	95% CI
1	RO	LOS	ANG	−0.01	0.29***	−0.03	−0.03	−0.01	[−0.01; 0.01]
2	RM	LOS	ANG	−0.01	0.29***	−0.04	−0.04	−0.01	[−0.01; 0.01]

Note: LOS—loss of self-dignity; ANG—anger; RO—religious orientation; RM—religious meaning; *** $p < 0.001$.

The obtained statistically insignificant results of the conducted mediation analysis seem to further confirm the correctness of the formulated H4 and further analysis toward testing the interactions between selected variables.

3.5. Moderation Analysis

3.5.1. Loss of Self-Dignity, Anger, and Religiosity

The analysis of the first moderation model (Figure 2) using the bootstrapping method was carried out using the criterion of the confidence interval at the level of 95% and a selection of 5000 random samples. The proposed model was well-fit to the data ($F(3, 451) = 16.59$, $p < 0.001$) and explained 10% of the variance of the dependent variable ($R^2 = 0.10$).

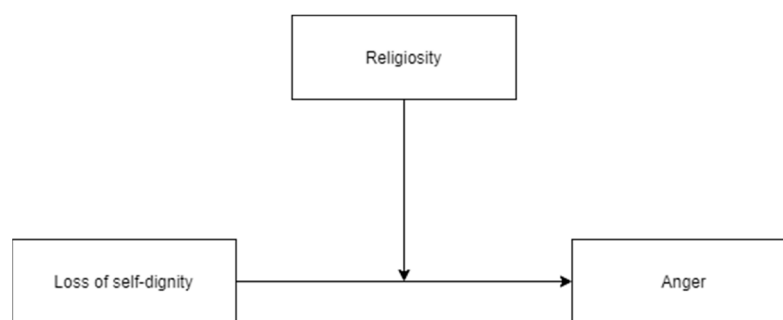


Figure 2. First model of moderation analysis.

Overall, a positive and statistically significant regression was obtained between the independent and dependent variables ($b = 0.59$, $t(451) = 4.57$, $p < .001$, 95% CI[0.34; 0.84]). The regression value for the total interaction coefficient of the tested model was $b = -0.13$, $t(451) = 2.25$, $p < .05$, 95% CI[−0.25; −0.02].

The analysis of interactions using the simple slopes method with unstandardized regression coefficients (Figure 3) showed that for the non-believers group, the value of the regression coefficient between loss of self-dignity and anger was highest ($b = 0.45$, $t(451) = 5.90$, $p < 0.001$), among non-practicing believers it was moderate ($b = 0.32$, $t(451) = 6.45$, $p < 0.001$), and among practicing believers it was lowest ($b = 0.18$, $t(451) = 2.36$, $p < 0.05$).

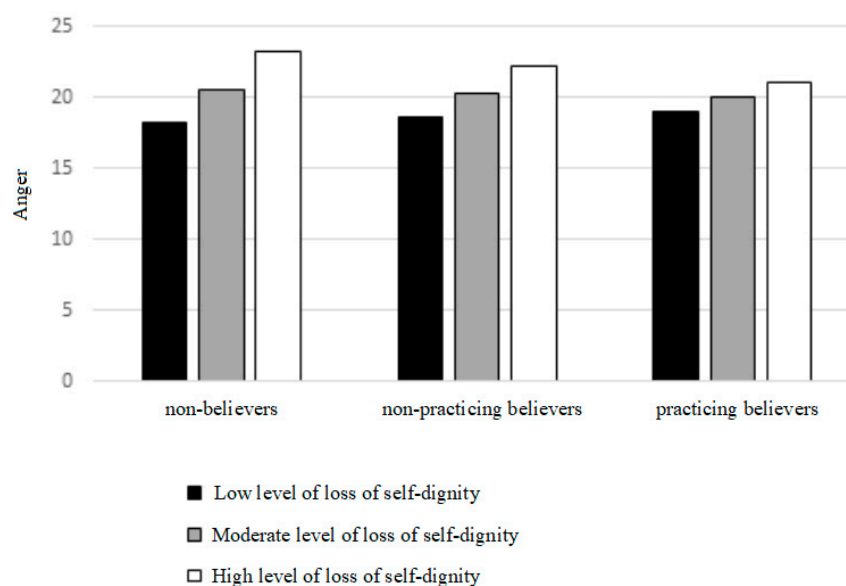


Figure 3. Simple slopes plot for the moderating role of religiosity in the relationship of loss of self-dignity and anger.

3.5.2. Sense of Self-Dignity, Anger, and Religiosity

The analysis of the second moderation model by bootstrapping was performed using the criterion of the confidence interval at the level of 95% and a random selection of 5000 samples. The obtained model fit the data well ($F(3, 451) = 3.89$, $p < 0.05$, $R^2 = 0.03$). The regression value for the interaction coefficient of the tested model was $b = -0.03$, $t(451) = 1.99$, $p < 0.05$, 95% CI[−0.06; −0.01]. A positive and statistically significant regression was also obtained between the independent variable self-dignity and the dependent variable anger ($b = 0.10$, $t(451) = 2.70$, $p < 0.01$, 95% CI[0.03; 0.17]).

The analysis of the obtained values of interaction coefficients at individual moderator levels showed (Figure 4) that the regression value between the independent and dependent variable for non-believers was highest ($b = 0.07$, $t(451) = 2.98$, $p < 0.01$), for non-practicing

believers it took an intermediate value ($b = 0.03$, $t(451) = 2.57$, $p < 0.05$), and for practicing believers it was lowest and was statistically insignificant ($b = 0.01$, $t(451) = 0.15$, $p = 0.883$).

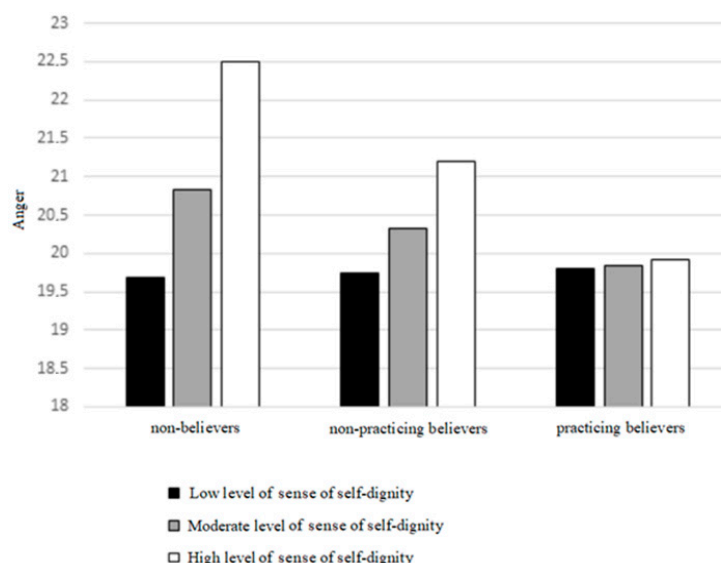


Figure 4. Simple slopes plot for the moderating role of religiosity in the relationship between sense of self-dignity and anger.

4. Discussion

The first purpose of this study was to examine the character of the relationship between the loss of self-dignity and anger (H1). The second aim was to verify whether religiosity would negatively correlate with anger (H2). The third goal was to identify whether religiosity would mediate the relationship between the loss of self-dignity and anger (H3). Finally, the fourth target was to investigate whether the level of anger resulting from the loss of self-dignity would be significantly different at different levels of one's religiosity (H4). This research corroborates three hypotheses well enough (H1, H2, and H4), while hypothesis H3 was not confirmed. However, all other dimensions of the sense of self-dignity correlated positively with religiosity.

With reference to the first hypothesis, the results show a weak but still statistically significant positive correlation between loss of self-dignity and anger, thus showing that individuals who display higher levels of loss of self-dignity tend to feel a higher degree of anger. This outcome is consistent with some previous studies. For example, [Shanahan et al. \(2010\)](#) observe that lower self-worth may lead to unhealthy anger, which serves as an attempt to defend against humiliation. In support of this, [Hong et al. \(2020\)](#) notice that decreased levels of self-esteem may activate in a person a psychological defense system in the form of negative emotions in order to protect their threatened self-dignity. Similarly, [Kernis et al. \(1989\)](#) perceive that unstable self-esteem and threats to self-worth serve as predictors of the tendency to experience anger and hostility. Another interesting outcome, although we did not consider it in our hypotheses due to the focus being on the loss of self-dignity, regards positive correlations between anger and sense of self-dignity and the experience dimension of self-dignity. This seemingly counterintuitive finding confirms some prior results showing that anger may be dissimilar from other negative emotions and may serve vital evolutionary functions ([Zajenkowski and Gignac 2018](#)). For example, anger was found to be positively associated with optimism ([Lerner and Keltner 2001](#)) and subjectively assessed intelligence ([Zajenkowski and Gignac 2018](#)). The positive association between self-dignity and anger can be explained by the fact that people with a higher sense of self-worth give themselves permission to be angry, especially in crisis and difficult situations that relate directly to the particular dimension of experienced self-esteem.

As regards to the second hypothesis, the outcomes show a negative correlation between religiosity and anger. Similar results, in different research groups, can be observed in

other studies. For example, religious beliefs and practices tend to diminish the intensity of anger in Roman Catholic (Marsh and Dallos 2004) and Abrahamic faith couples (Lambert and Dollahite 2006). Márquez-González et al. (2010) suggest that spiritual meaning and support from a religious community are directly and negatively related to anger. There is also some clinically based evidence that meditation may alleviate the cognitive, emotional, and behavioral expressions of anger (Wright et al. 2009). Maddi et al. (2006) show that religiosity, together with hardiness, has a buffering effect on anger among military and governmental personnel. According to other researchers (Bremner et al. 2011), people often turn to intrinsically religious practices such as prayer or meditation when they experience anger or fear.

In terms of the third hypothesis, the present findings do not support our assumptions, as the dimension of the loss of self-dignity did not have a mediating effect on the relationship between religiosity and anger, especially in terms of regression between religiosity and the loss of self-dignity. One of the possible explanations for this lack of correlation might be that these particular participants do not consider religion as a part of their loss of self-worth. We can presume that, besides religious meaning, there are many other factors that influence a sense of self-worth, such as a lack of achievement (Covington 1984), appearance and body image (Mirza et al. 2011; Stefanone et al. 2011), and an individual's beliefs and feelings (Pelham and Swann 1989). However, religiosity correlated with the overall sense of self-dignity and its other dimensions, which seems to confirm both theoretical assumptions and empirical studies about the role of religious faith in strengthening self-worth. On the bases of the outcomes received, it can be cautiously assumed that religiosity, which empowers individuals to find purpose and understand their lives, can increase their sense of self-dignity. In fact, Crescioni and Baumeister (2013) mention religion as a factor that fulfills the human need for self-worth.

With regard to the fourth hypothesis, our results confirm that the level of anger resulting from a loss of self-dignity significantly decreases as the level of religiosity increases. Such results seem to support the conception that religiosity may act as a protective factor between the risk (e.g., loss of self-dignity) and the outcome factor (e.g., anger). In fact, higher levels of religiosity may be enough to defend individuals against the adverse effect of a decline both of self-respect and trust in oneself, thus leading them to experience a lower level of anger. It is worth noting that religion provides believers with a cognitive schema that helps them find meaning in difficult personal experiences and life events (Laufer et al. 2009). Berger (1990) speaks about religiosity as a reality that supplies its believers with specific viewpoints, called theodicies, which allow them to explain and deal with challenging circumstances. Thus, feeling their self-worth threatened, believers may find more meaning in what they experience than their less believing counterparts. Moreover, religious people may be more convinced than those who do not believe that they are priceless in God's eyes, even though others do not appreciate them.

5. Limitations

Besides the valuable results, the current research also presents some limitations. Firstly, the study participants were recruited through social media websites, making it difficult to reach others, especially older adults. Therefore, future research should include adolescents and/or people from middle and late adulthood to verify whether a similar pattern of results will be obtained in the mentioned age groups. Moreover, the cross-sectional character of the present study does not allow us to assess causality between the variables taken into account. Consequently, it would be meaningful to employ an experimental or longitudinal design to better comprehend the dynamics lying behind a correlational and a moderation approach.

6. Implications

The present study seems to confirm the conception that religiosity may act as a protective factor between the risk (loss of self-dignity) and the outcome factor (anger).

Understanding the role that religiosity plays in dealing with a declining sense of dignity in different developmental stages may help in the implementation of therapeutic plans among various groups of people affected by a lower self-esteem due to different normative and non-normative crises.

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