Center for Demography and Ecology

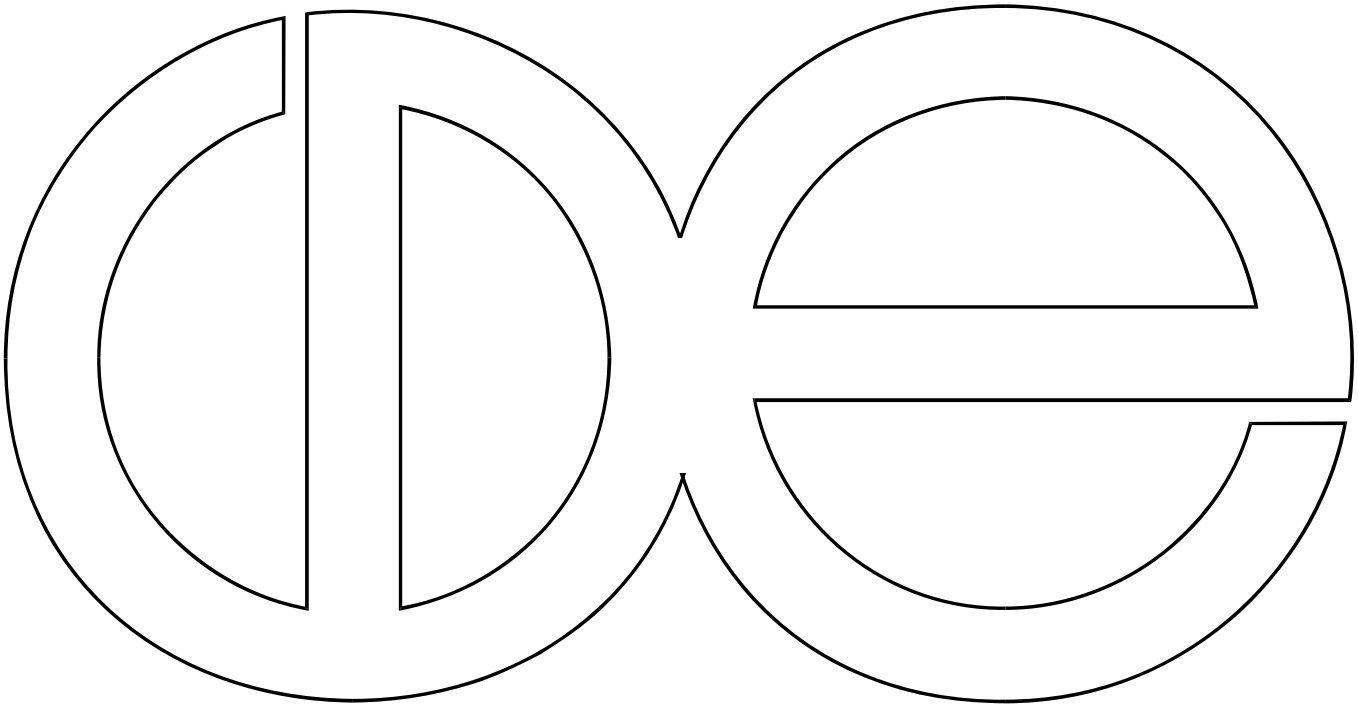
University of Wisconsin-Madison

Religious Social Identity as an Explanatory Factor for Associations between More Frequent Formal Religious Participation and Pscyhological Well-Being

Emily A. Greenfield

Nadine F. Marks

CDE Working Paper No. 2005-02



RUNNING HEAD: RELIGIOUS SOCIAL IDENTITY

Religious Social Identity as an Explanatory Factor for Associations between More Frequent Formal Religious Participation and Psychological Well-Being

Emily A. Greenfield

&

Nadine F. Marks

Human Development and Family Studies

University of Wisconsin-Madison

NOTES: Support for this research was provided by grants from the National Institute on Mental Health (MH61083) and the National Institute on Aging (AG20166). Please address correspondence to Emily Greenfield, Human Development and Family Studies, University of Wisconsin-Madison, 1430 Linden Drive, Madison, WI, 53706-1575, or eagreenfield@wisc.edu.

Abstract

Guided by social identity theory, this study investigated having a closer identification as a member of one's religious group as an explanatory mechanism for linkages between more frequent formal religious participation and better subjective psychological well-being (more positive affect, less negative affect, and more life satisfaction). Multivariate regression models were estimated based on data from 3,032 participants, ages 25 to 74, in the 1995 National Survey of Midlife in the U.S. (MIDUS). Results provided support for the mediating effect of religious social identity on the associations between more frequent religious service attendance and all three dimensions of psychological well-being examined. Given the lack of previous empirical attention to social identity within the literature on religiosity and mental health, these findings contribute to our understanding of self, religion, and health, while also pointing to the importance of continuing to draw on well developed social psychological theory in investigations of linkages between religion and health.

Religious Social Identity as an Explanatory Factor for Associations between More Frequent Formal Religious Participation and Psychological Well-Being

Introduction

Although the centrality of religion in shaping human experiences has been a prominent theme in the social sciences since the beginning of formal sociological theorizing (Davie, 1998), it has only been recently that investigators have focused increasing empirical attention to linkages between religiosity and individual mental and physical health outcomes. While findings have been somewhat inconsistent, with some studies indicating that religion is detrimental to health and other studies indicating no association at all (Koenig & Larson, 2001), much previous work suggests that a higher level of religious involvement is associated with better physical health (Levin, 1994) and mental health (Levin & Tobin, 1995). This evidence has been generated by research incorporating clinical and community samples, a range of mental and physical health outcomes, and both cross-sectional and longitudinal designs (George, Ellison, & Larson, 2002). While many theories have been posited as to why religiosity promotes mental and physical health, relatively few explanations have been tested empirically. Therefore, an important task remains for social and behavioral researchers: to understand the mechanisms through which religiosity can enhance mental and physical health (George, Ellison, & Larson, 2002; Pargament, 2002).

Drawing on social identity theory and previous investigations of religion, identity, and well-being, this study aimed to contribute to building a better understanding of the associations between formal religious participation and mental health by examining religious social identity as a possible explanatory factor. More specifically, we used data from adults, ages 25 to 74, in

the National Survey of Midlife in the U.S. (MIDUS) to test a mediation model positing that more closely identifying as a member of one's religious group would account for linkages between more frequent formal religious participation and better subjective psychological well-being (more positive affect, less negative affect, and more life satisfaction).

Theoretical Background

Nearly a century ago, Emile Durkheim (1912) made the classic sociological assertion that religious beliefs and practices are both a group- and an individual-level phenomenon. Social identity theory, however—as a well-developed social psychological theory that addresses the interface between groups and individuals—has not yet been widely applied to investigations of religiosity and mental health. This study draws on social identity theory to investigate linkages among frequency of formal religious participation, strength of religious social identity, and subjective psychological well-being.

Social Identity Theory

Social identity theory is a social psychological theory linking individuals and groups. As Hogg and Abrams (1988) noted, whereas many social psychological theories have focused on the "individual in the group," social identity theory draws attention to "the group in the individual" (p. 3). The theory begins with the assumption that individuals exist in a society comprised of many social categories that stand in relative power and status relationships to each other. Although social categories vary in terms of their scope and duration (e.g., from longstanding geopolitical nations to temporary work groups), all social categories have the potential to shape a person's self-concept. When individuals define themselves in terms of their belonging to a social category, a social identity is formed. In other words, social identity is "the knowledge that (one) belongs to certain social groups together with some emotional and value significance of…the

group membership" (Tajfel, 1972, pp. 31). Self-categorization theory, as an extension of social identity theory (Hogg, 1996), explicates the contextual cognitive processes through which people form social identities, as well as the ways in which social identities shape a person's perceptions of others. The theory addresses how these perceptions lead to certain inter-group and intra-group behaviors and attitudes. Although researchers developing and using self-categorization theory largely have focused on explaining the consequences of social identity processes in terms of between-group dynamics—such as stereotyping and prejudice—the theory, itself, constitutes a more general framework on group-mediated social psychological phenomena (Hogg, 1996). It is at this level of theory that social identity theory has relevance for the current study.

First, by focusing on the interface between the psychological and the structural, social identity theory provides a theoretical basis for positing that more frequent formal religious participation would be associated with having a stronger religious social identity. Broadly stated, social identity theory posits that groups are both a psychological entity and a social product (Turner et al., 1987). Group characteristics—such as structures, roles and norms—are internalized as part of an individual's sociocognitive system, while individuals' cognitive and motivational states give rise to structural group characteristics. This substantive focus on the interplay between individuals' subjective experiences of social groups and more external features of social groups points to possible associations between formal religious participation (i.e., an external feature of a social group) and religious social identity (i.e., the psychological experience of that group by an individual). The theory would suggest that formal participation within a given social group would enhance individuals' social identities in terms of that group, and vice-versa.

Second, although the theory has been developed such that it focuses less on intra-individual affective states than do other theories on identity (Hogg, Terry, & White, 1995), several social identity theorists have posited linkages between social identities and psychological well-being. In its original conceptualization, the theory held that an enhanced positive feeling toward self was a primary motivation for people's formation of social identities (Hogg, 1996). Likewise, theorists have suggested that people are motivated to compare their in-group (i.e., the group to which they perceive belonging) to out-groups in favorable ways, such as by choosing dimensions of comparison on which their group is superior to others or, alternatively, by changing their in-group membership if possible. Moreover, social identities are viewed as functional because they are theorized as providing individuals and society with structure for behavior. The psychological processes involved in forming social identities are posited as serving to simplify social reality and thereby help individuals avoid the distress of being overwhelmed by social complexities (Hogg & Abrams, 1988).

In sum, social identity theory suggests that both formal group participation and psychological well-being are related to the social identity relevant to that group. Social identity theory, therefore, provides a firm theoretical ground for exploring religious social identity as an explanatory mechanism for associations between more frequent formal religious participation and psychological well-being. Social identity theory suggests that more frequent formal religious participation would be associated with having a closer identification as a member of one's own religious group, and that this aspect of identity, in turn, would account for higher levels of psychological well-being.

Empirical Background and Hypotheses

Religion and Psychological Well-Being

Empirical investigations of possible linkages between religiosity and health have proliferated within the past two decades. Although many studies have indicated that higher levels of religiosity are associated with better psychological well-being, there have been some inconsistencies in the results of previous studies (Levin & Tobin, 1995). Recognizing the accumulation of findings in this area, as well as possible methodological and substantive explanations for differences in results, Smith, McCullough, and Poll (2003) conducted a meta-analysis of 147 independent investigations that examined linkages between religiosity and depressive symptoms. Their findings indicated a small, but robust, association between greater religiosity and fewer depressive symptoms. This evidence suggests that, on average, higher levels of religiosity are associated with better mental health.

Religion and Identity

Although social identity theory offers a rich theoretical foundation from which to explore linkages between religion and identity, only a small body of literature has focused attention to associations between religiosity and various aspects of self. Several cross-sectional studies have demonstrated that formal religious participation is associated with having a more positive self-concept, both in terms of global self-esteem and self-efficacy (Ellison, 1993; Krause, 1995). Another study found evidence to suggest that religiosity is also associated with mastery, but that the direction and size of this association depend upon an individual's socioeconomic status (Schieman, Nguyen, & Elliott, 2003). Additionally, several researchers have found religiosity to be related to how people perceive themselves in relation to others. An increasing number of research studies are drawing on attachment theory, suggesting that people might have internal working models for their relationship with a higher power (Sim & Loh, 2003).

Although fewer studies have specifically investigated associations between formal religious participation and religious social identity, studies on social participation and social identity in other contexts suggest that such linkages would exist. For example, research on college students has demonstrated that students' stronger ethnic identities are associated with their membership in minority ethnic organizations, as well as in sororities and fraternities (Sidanius et al., 2004). Also, research has demonstrated that greater exposure to individual activists and activist groups can enhance individuals' identification as an activist (Reid & Purcell, 2004). Consistent with social identity theory, these empirical studies suggest that involvement with formal social groups is associated with having stronger social identities with respect to that group.

Identity and Psychological Well-Being

Classic social psychological theories, as well as the bodies of empirical work that they have inspired, have posited that aspects of self are essential to processes related to psychological well-being. For example, William James (1999)—one of the principal founders of modern psychology—discussed a range of emotions, including triumph, honor, elation, and dejection, as being rooted in experiences of self. More recently, Taylor and Brown (1988) developed and tested the proposition that positive illusions about one's self help people to experience positive feelings and to avoid mental illness. Likewise, Higgins (1987) has outlined a self-discrepancy theory that details how mismatches between different aspects of self are related to unique emotional experiences. Finally, Stryker and Statham (1985) have posited interactional role theory, which directs attention to the mental health consequences of having identities derived from role designations.

Less theoretical and empirical attention has focused explicitly on social identity and mental health. Nevertheless, literature on adolescent identity development—particularly that of ethnic minority youth—has generated some empirical evidence regarding associations between social identity and well-being. Studies have demonstrated that individuals with stronger ethnic identities report fewer depressive symptoms (Mossakowski, 2003), more positive attitudes toward self (Negy et al., 2003), and less substance abuse (Simons et al., 2002). Features of ethnic identity also have been found to buffer individuals against the deleterious psychological consequences of certain risk factors, including perceived discrimination (Mossakowski, 2003) and criminal victimization (Simons et al., 2002). In sum, this research indicates that people with certain types of identities experience higher levels of well-being.

Social Identity as a Mediator

Social identity as a mediating factor between formal religious participation and psychological well-being has not been formally investigated. In fact, very few studies have considered social identity as an explanatory factor between social participation and well-being more broadly. Nevertheless, there has been some research on other self-related factors as mediators for associations between formal religious participation and mental health. Two studies (Commerford & Reznikoff, 1996; Krause, 1992) have found that self-esteem and mastery partially mediated the effects of religious involvement on psychological well-being; however, two other studies that investigated self-esteem (Braam et al., 1998; Ellison et al. 1997) failed to find any mediating effects. In their review of research in this area, George, Ellison, and Larson (2002) conclude that additional research on self-implicated pathways from religiosity to health is “badly needed” (p. 195).

Recently, Krause and Wulff (2005) responded to the call for further research in this area by investigating how individuals' sense of belonging to their congregations might explain the associations between religious involvement and physical health. More specifically, the authors found support for their model positing that higher levels of receiving emotional support from other congregational members would be associated with a stronger sense of congregational belonging, and that this stronger sense of belonging would be associated with individuals' greater satisfaction with their health. Although not explicitly tested in their study, the authors suggest that the strength of one's sense of belonging to their congregation might explain why more frequent service attendance is associated with better health. The authors conclude that "research on church-based belonging is in its infancy" (p. 91) and also call for additional work in this area. This scholarship suggests that focusing on aspects of self has promise for better understanding why more frequent religious participation might be associated with better health.

In sum, guided by social identity theory and previous empirical investigations of religion, identity, and well-being, we formulated the following hypotheses:

H1: Individuals who report more frequent formal religious participation will report higher levels of psychological well-being.

H2: Individuals who report more frequent formal religious participation will report having a stronger religious social identity.

H3: Individuals who report having a stronger religious social identity will report higher levels of psychological well-being.

H4: Having a stronger religious social identity will help to account for associations between more frequent formal religious participation and higher levels of psychological well-being.

Method

Data

This study used data from the National Survey of Midlife in the U.S. (MIDUS). The MIDUS national probability sample that completed both the telephone survey and self-administered questionnaire includes 3,032 English-speaking, non-institutionalized adults, who were between the ages of 25 and 74 when interviewed in 1995. Participation in the survey took place in two parts. Respondents first participated in a telephone interview and then completed a self-administered mail-back questionnaire. The overall response rate for the sample that answered both the survey and questionnaire was 60.8% with 70% of identified participants completing the telephone interview and 86.6% of those participants who completed the telephone interview also completing the mail-back questionnaire.

The MIDUS sample was obtained through random digit dialing, with an oversampling of older respondents and men to ensure the desired distribution on the cross-classification of age and gender. Sampling weights correcting for selection probabilities and non-response allow the sample to match the composition of the U.S. population on age, sex, race, and education. For this study, we conducted multivariate regression analyses with both the weighted and unweighted samples. No substantive differences in results were found, and therefore results from unweighted analyses are reported as these analyses provide estimates with minimized standard errors (Winship & Radbill, 1994). For a detailed technical report regarding field procedures, response rates, and weighting, see http://midmac.med.harvard.edu/research.html#tchrpt.

Dependent Variables

Psychological well-being

Psychological well-being has become increasingly recognized as a multidimensional construct. Theoretical developments have suggested that positive and negative affect are not two ends of a bipolar continuum (Bradburn, 1969) and that experiencing psychological well-being extends beyond the minimization of psychological distress and the maximization of happiness (Ryan & Deci, 2001). For this study, we examined subjective well-being—the most widely investigated aspect of psychological well-being in social scientific research (Ryan & Deci). Research on the structure of subjective well-being has supported a three-dimension model, which includes positive affect, negative affect, and life satisfaction (Diener et al., 1999).

To measure *negative affect* and *positive affect*, two separate six-item scales new to the MIDUS were used (Mroczek & Kolarz, 1998). To assess negative affect, participants were asked how frequently in the last 30 days they felt (a) so sad nothing could cheer them up, (b) nervous, (c) restless of fidgety, (d) hopeless, (e) that everything was an effort, and (f) worthless. Similarly, to assess positive affect, participants were asked how frequently they felt (a) cheerful, (b) in good spirits, (c) extremely happy, (d) calm and peaceful, (e) satisfied, and (f) full of life. Respondents answered each of the 12 affect items on a five-point scale (1 = all of the time, 5 = none of the time). Items were reverse coded and summed such that higher scores indicated more negative or more positive affect. Cronbach's alphas were .87 and .91 for the negative affect and positive affect indexes, respectively. (Table 1 provides descriptives for all analytic variables.)

To measure *life satisfaction*, participants were asked, "Using a scale from 0 to 10 where 0 means 'the worst possible life overall' and 10 means 'the best possible life overall,' how would you rate your life overall these days?" Preliminary analyses detected a positive skew in the distribution of participants' responses to this item, with 64% of the respondents choosing 8, 9, or 10. To partially correct for this skewed distribution while preserving variation on this index,

responses were recoded (0-6 = 1; 7 = 2; 8 = 3; 9 = 4; 10 = 5) with higher scores indicating more life satisfaction.

Independent Variables

Formal Religious Participation and Religious Social Identity

Like psychological well-being, religiosity has been conceptualized as a multidimensional construct (Paloutzian & Kirkpatrick, 1995). We focus on formal religious participation as the focal dimension of religiosity in that public religiosity is congruent with the more primary focus of social identity theory. To measure *formal religious participation*, we used participants' responses to a single item that asked participants about the frequency they "usually attend religious or spiritual services." Response categories included: a) more than once a week, b) about once a week, c) one to three times a month, d) less than once a month, and e) never. Participants who reported usually attending religious services more than once a week or about once a week were coded as 3; participants who reported usually attending one to three times a month were coded as 2; participants who reported attending less than once a month were coded as 1; and participants who reported never attending religious services were coded as 0.

To measure *strength of religious social identity*, we used participants' responses to a single item that asked participants, "How closely do you identify with being a member of your religious group? (1 = very; 2 = somewhat; 3 = not very; 4 = not at all)" Responses were re-coded to give this scale a range of 0 to 3, with higher scores indicating having a stronger religious social identity.

Sociodemographic Control Variables

Previous studies have indicated that several sociodemographic factors are associated with well-being (e.g., Mroczek & Kolarz, 1998), as well as with religiosity (e.g., Peacock & Poloma,

1998). To provide evidence for associations among formal religious participation, religious social identity, and subjective psychological well-being independent of other factors, participants' *age, gender, race, education, income, employment status, marital status, parental status,* and *self-rated health* were controlled in all analyses. Dichotomous variables were created for *gender* (1 = female), race (1 = Black), *employment status* (1 = currently employed), *marital status* (1 = currently married), and *parental status* (1 = has at least one living biological or adopted child). Education was coded on a four-point scale, with 1 indicating that the participant had completed some or no years of high school, 2 indicating that the participant had completed high school, 3 indicating that the participant had some years of higher education, and 4 indicating that the participant had obtained a college degree. Age was calculated as years since birth at the time of the telephone survey. Income was computed by combining participants' personal annual income with that of their spouse (if applicable). Self-rated health was measured by a standard global self-assessed health question, which asked participants, "In general, would you say your health is…?" (1 = very poor to 5 = excellent).

Data Analytic Sequence

The ordinary least squares method was used to estimate multivariate regression models to test the proposed linkages among the variables. To test whether participants' more frequent formal religious participation was associated with better psychological well-being (Hypothesis 1), each dimension of subjective psychological well-being (positive affect, negative affect, and life satisfaction) was regressed on the nine sociodemographic control variables and on the frequency of participants' formal religious participation. To test whether participants' more frequent formal religious participation was associated with more closely identifying as a member of one's religious group (Hypothesis 2), strength of religious social identity was regressed on the

control variables, as well as on the frequency of participants' formal religious participation. To test whether having a stronger religious social identity was associated with higher levels of psychological well-being (Hypothesis 3), as well as whether having a stronger religious social identity mediated associations between more frequent formal religious participation and psychological well-being (Hypothesis 4), two additional sets of models were estimated. Baron and Kenny's (1986) analytic strategy for testing a mediating effect guided the specification of these models. Analyses for Hypotheses 1 and 2 address Baron and Kenny's first two criteria: (1) that the independent variable (frequency of formal religious participation) must be associated with the proposed mediator (strength of religious social identity), and (2) that the proposed mediator must be associated with the dependent variable (positive affect, negative affect, and life satisfaction). The third criterion involves demonstrating that the association between the possible mediating variable and the dependent variable is statistically significant. The fourth criterion involves testing for whether the association between independent variable and dependent variable is no longer significant or decreases significantly with the introduction of the proposed mediating factor. Accordingly, a final set of models were estimated that regressed the well-being variables on the control variables, the strength of participants' religious social identity, and the frequency of their formal religious participation. These models indicated whether social identity was a statistically significant predictor of the well-being outcomes (Hypothesis 3), and whether the strength of one's social identity helped account for the association between frequency of formal religious participation and psychological well-being (Hypothesis 4).

Results

Frequency of Formal Religious Participation and Psychological Well-Being

To examine evidence for the first hypothesis that predicted that greater frequency of formal religious participation would be associated with better subjective psychological well-being, models were estimated that regressed participants' negative affect, positive affect, and life satisfaction on the frequency of their formal religious participation (Table 2, Model 1). Congruent with previous research, these analyses indicated that more frequent religious or spiritual service attendance was associated with higher levels of positive affect (b = .07, $p \leq$ .001), lower levels of negative affect (b = -.03, $p \leq$ .001), and higher levels of life satisfaction (b = .11, $p \leq$ .001). These analyses provided consistent evidence in support of Hypothesis 1.

Frequency of Formal Religious Participation and Strength of Religious Social Identity

To examine evidence for the second hypothesis that predicted that greater frequency of formal religious participation would be associated with greater strength of religious social identity, and to provide evidence for the plausibility that religious social identity might mediate the association between formal religious participation and psychological well-being, a model was estimated that regressed participants' strength of religious social identity on the frequency of their formal religious participation (Table 3). As predicted, frequent formal religious participation was associated with having a stronger religious social identity, (b = .63, $p \leq$ .001). For every one unit increase in frequency of religious service attendance, the strength of participants' religious social identity increased by more than one-half of a standard deviation. These analyses provided evidence in support of Hypothesis 2.

Strength of Religious Social Identity and Psychological Well-Being, and Religious Social Identity as a Mediator

Regression analyses in support of Hypotheses 1 and 2 satisfy Baron and Kenny's (1986) first two criteria for testing mediating models. The next set of models was estimated to attend to the final two standards, thereby more fully examining evidence for the third hypothesis predicting that stronger religious social identity would be associated with better subjective psychological well-being, as well as for the fourth hypothesis predicting that religious social identity would help account for (i.e., mediate) the associations between formal religious participation and psychological well-being. Participants' strength of religious social identity was added to the models already including participants' frequency of formal religious participation (see Table 2, Model 2). Evidence for the mediating effect of religious social identity was found with respect to all three dimensions of well-being investigated. Strength of religious social identity fully accounted for the associations between more frequent formal religious participation and higher levels of positive affect, lower levels of negative affect, and higher levels of life satisfaction. When strength of religious social identity was added to these regression models, the coefficients for formal religious participation became no longer statistically significant. In these final models, strength of religious social identity remained a significant predictor of more positive affect ($b = .07$, $p \leq .001$), less negative affect ($b = -.04$, $p \leq .05$), and more life satisfaction ($b = .11$, $p \leq .001$). In sum, these analyses provided consistent evidence in support of Hypotheses 3 and 4, i.e., that having a stronger religious social identity is associated with higher levels of psychological well-being and that religious social identity mediates the associations between more frequent formal religious participation and psychological well-being.

Discussion

The purpose of this study was to investigate linkages among individuals' frequency of formal religious participation, strength of religious social identity, and subjective psychological well-being, with particular attention to the possible mediating effect of religious social identity on associations between more frequent formal religious participation and psychological well-being. First, consistent with previous research (Levin & Tobin, 1995; Smith, McCullough, & Poll, 2003), more frequent formal religious participation was associated with better mental health across all three dimensions of subjective psychological well-being examined.

Also as hypothesized, more frequent religious participation predicted having a stronger religious social identity. The more frequently people reported attending religious services, the more closely they identified as being a member of their religious group. Although this study's cross-sectional design makes it difficult to discern the extent to which more frequent formal religious participation causes stronger religious social identities and/or vice-versa, this finding is consistent with social identity theory, which posits linkages between social categories and individuals' identities (Hogg, 1996; Hogg and Abrams, 1988; Tajfel, 1972; Turner et al. 1987).

Also consistent with social identity theory, this study found that having a stronger religious social identity was associated with higher levels of subjective psychological well-being. This association held across all three dimensions of well-being examined: positive affect, negative affect, and life satisfaction. This finding adds to the growing empirical literature for a relatively lesser-investigated aspect of social identity theory—that social identity processes have implications for individuals' mental health (Hogg, Terry, & White, 1995).

Lastly, this study found evidence to support that religious social identity serves as an explanatory factor for the associations between more frequent formal religious participation and

higher levels of subjective psychological well-being. For all three dimensions of well-being investigated, more frequent religious service attendance was associated with higher levels of subjective psychological well-being, and the addition of the religious social identity variable to the models eliminated the explanatory power of individuals' frequency of formal religious participation. Given the previous lack of explicit empirical attention to social identity as a possible intervening factor between religiosity and mental health, this finding in support of the mediating function of religious social identity offers a new contribution to growing social scientific understandings of religion, self, and health.

Limitations and Implications for Future Research

Although this study capitalizes on the strengths of a large, multidisciplinary national survey to investigate its hypotheses, particular aspects of this study limit the extent to which conclusions can be fully drawn. First, the study's measures were chosen based on what was included in the 1995 Survey of Midlife in the U.S. (MIDUS). Although the item used to measure strength of religious social identity has strong face validity (i.e., the measure appears to assess what it is intended to measure), it is important to note that the construct of social identity, as described by social identity theorists, is more complex than this unidimensional measure. For example, Turner et al. (1987) discuss social identity as involving the use of social groups for social comparisons and value acquisition, and describe that the salience of one's self-categorization is, in part, indicated by the degree to which a person emphasizes intra-class similarities and inter-class differences. The current study's measure of social identity does not directly capture these aspects of social identity. Likewise, the current study's measure of formal religious participation as frequency of religious or spiritual service attendance is relatively simple, considering the other ways in which people might formally participate in religious

activities, such as through religious education activities. Future studies incorporating different and more multidimensional measures of both formal religious participation and religious social identity are necessary.

Also, future studies employing longitudinal designs would allow for a better understanding of the causal nature of the associations found. Although previous studies with more sophisticated designs have suggested that increased religious participation leads to enhanced well-being, given the dearth of studies on religious social identity, the extent to which stronger religious identity causes well-being and/or is caused by more frequent formal religious participation remains more uncertain.

Additionally, it is important to note that the current study's findings are based on a U.S. national representative sample that is purposely heterogeneous. As such, the findings of this study represent an averaging of associations among the variables. Pathways from formal religious participation to religious social identity to psychological well-being might vary for people belonging to different social groups, such as by age and ethnicity (Paloutzian and Kirkpatrick, 1995). Future studies drawing on additional theories and other bodies of literature are necessary to investigate the extent to which these findings systematically apply more readily to some subgroups of the population than others.

Conclusions

Despite its limitations, this study offers an important contribution to efforts aimed at building a better understanding of the linkages between religiosity and mental and physical health. The results provide evidence that more frequent formal religious participation is associated with having a stronger religious social identity and that this aspect of identity, in turn, accounts for associations between more frequent formal religious participation and higher levels

of subjective psychological well-being. The findings are noteworthy in terms of their addressing a relatively under-studied factor within empirical investigations of religiosity and mental health. They are also indicative of the promise of continuing to apply and extend well developed social psychological theory on group processes and individual outcomes to the social scientific study of religion and mental and physical health.

References

Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51,* 1173-1182.

Braam, A.W., Beekman, A.T., Knipscheer, C.P., Deeg, D.J., van den Eeden, P., & van Tilburg, W. (1998). Religious denomination and depression in older Dutch citizens: Patterns and models. *Journal of Aging and Health, 9,* 483-503.

Bradburn, N. (1969). *The structure of psychological well-being.* Chicago: Adline.

Commerford, M., & Reznikoff, M. (1996). Relationship of religion and perceived social support to self-esteem and depression in nursing home residents. *Journal of Psychology, 130,* 35-50.

Davie, G. (1998). Sociology of religion. In W.H. Swatos, P. Kivisto, B.J. Denison, & J. McClenon (Eds.), *Encyclopedia of religion and society.* Walnut Creek, CA: Alta Mira Press.

Diener, E., Suh, E.M., Lucas, R.E., & Smith, H.L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125,* 276-302.

Durkheim, E. (1912). *Elementary forms of religious life*. (K.E. Fields, Trans.). New York: Free Press. (Reprinted in 1995).

Ellison, C.G. (1993). Religious involvement and self-perceptions among Black Americans. *Social Forces, 71,* 1027-1055.

Ellison, C.G., Musick, M., Levin, J., Taylor, R., & Chatters, L. (August, 1997). The effects of religious attendance, guidance, and support on psychological distress: Longitudinal

findings from the National Survey of Black Americans. Paper presented at the annual meetings of the Society for the Scientific Study of Religion, San Diego, CA.

George, L.K., Ellison, C.G., & Larson, D.B. (2002). Explaining the relationships between religious involvement and health. *Psychological Inquiry, 13,* 190-200.

Hogg, M. (1996). Intragroup processes, group structure and social identity. In W. Robinson (Ed.), *Social Groups and Identities* (pp. 65-93). Oxford: Butterworth Heinemann.

Hogg, M.A., & Abrams, D. (1988). Social identifications: A social psychology of intergroup relations and group processes. New York: Routledge.

Hogg, M.A., Terry, D.J., & White, K.M. (1995). A tale of two theories: A critical comparison of identity theory with social identity theory. *Social Psychology Quarterly, 58,* 255-269.

Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94,* 319-340.

James, W. (1999). The Self. In R.F. Baumeister (Ed.), *The Self in social psychology* (pp. 69-77).

Koenig, H.G., & Larson, D.B. (2001). Religion and mental health: Evidence for an association. *International Review of Psychiatry, 13,* 67-78.

Krause, N. (1992). Stress, religiosity, and psychological well-being among older blacks. *Journal of Aging and Health, 4,* 412-439.

Krause, N. (1995). Religiosity and self-esteem among older adults. *Journal of Gerontology: Psychological Sciences, 50,* P236-P246.

Krause, N., & Wulff, K.M. (2005). Church-based social ties, a sense of belonging in a congregation, and physical health status. *The International Journal for the Psychology of Religion, 15,* 73-94.

Levin, J.S. (1994). Introduction: Religion in aging and health. In J.S. Levin (Ed.), *Religion in aging and mental health.* Thousand Oaks, CA: Sage Publications.

Levin, J.S., & Tobin, S.S. (1995). Religion and psychological well-being. In M.A. Kimble, S.H. McFadden, J.W. Ellor, & JJ. Seeber's (Eds.), *Aging, spirituality, and religion: A Handbook.* Minneapolis, MN: Fortress Press.

Mossakowski, K.N. (2003). Coping with perceived discrimination: Does ethnic identity protect mental health? *Journal of Health and Social Behavior, 44,* 318-331.

Mroczek, D.K., & Kolarz, C.M. (1998). The effect of age on positive and negative affect: A developmental perspective on happiness. *Journal of Personality and Social Psychology, 75,* 1333-1349.

Negy, C., Shreve, T.L., Jensen, B.J., & Uddin, N. (2003). Ethnic identity, self-esteem, and ethnocentrism: A study of social identity versus multicultural theory of development. *Cultural diversity and mental health, 9,* 333-344.

Paloutzian, R.F., & Kirkpatrick, L.A. (1995). The scope of religious influences on personal and societal well-being: Introduction. *Journal of Social Issues, 51,* 1-11.

Pargament, K.I. (2002). Is religion nothing but…? Explaining religion versus explaining religion away. *Psychological Inquiry, 13,* 239-244.

Peacock, J.R., & Poloma, M.M. (1998). Religiosity and life satisfaction across the life course. *Social Indicators Research, 48,* 321-345.

Reid, A., & Purcell, N. (2004). Pathways to feminist identification. *Sex Roles, 50,* 759-769.

Ryan, R.M., & Deci, E.L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52,* 141-166.

Scheiman, S., Nguyen, K., & Elliott, D. (2003). Religiosity, socioeconomic status, and the sense of mastery. *Social Psychology Quarterly, 3,* 202-221.

Sidanius, J., Van Laar, C., Levin, S., & Sinclair, S. (2004). Ethnic enclaves and the dynamics of social identity on the college campus: The Good, the Bad, and the Ugly. *Journal of Personality and Social Psychology, 87,* 202-221.

Sim, T.N., & Loh, B.S. (2003). Attachment to God: Measurement and dynamics. *Journal of Social and Personal Relationships, 20,* 373-389.

Simons, R.L., Murry, V., McLoyd, V., et al. (2002). Discrimination, crime, ethnic identity, and parenting as correlates of depressive symptoms among African American children: A multilevel analysis. *Development and Psychopathology, 14*¸ 371-393.

Smith, T.B., McCullough, M.E., & Poll, J. (2003). Religiousness and depression: Evidence for a main effect and the moderating influence of stressful life events. *Psychological Bulletin, 129,* 614-636.

Stryker, S., & Statham, A. (1985). Symbolic interaction and role theory. In G. Lindzey & E. Aronson (Eds.), *Handbook of Social Psychology* (pp. 311-378). New York: Random House.

Tajfel, H. (1972). Social categorization (English manuscript of La categorisation sociale). In S. Moscovici (Ed.), *Introduction a la psychologie sociale* (pp. 30-37). Paris: Larousse.

Taylor, S., & Brown, J. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin, 103,* 193–210.

Turner, J.C., Hogg, H.A., Oakes, P.J., Reicher, S.D., & Wetherell, M.S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford: Basil Blackwell Ltd.

Winship, C., & Radbill, L. (1994). Sampling weights and regression-analysis. *Sociological Methods and Research, 23,* 230-257.

Table 1

Descriptives for Analytic Variables

Variable	Mean	(s.d.)	Range	Variable	Mean	(s.d.)	Range
Age	47.66	(12.95)	25-74	Parental Status [a]	.18	(.38)	0-1
Gender [a] (1=Female)	.51	(.50)	0-1	Formal Relig. Participation	1.67	(1.18)	0-3
Race [a] (1=Black)	.07	(.50)	0-1	Relig. Social Identity	1.72	(1.05)	0-3
Education	2.81	(.97)	1-4	Positive Affect	3.36	(.74)	1-5
Income	54.35	(47.75)	0-300	Negative Affect	1.56	(.63)	1-5
Employment Status [a]	.71	(.45)	0-1	Life Satisfaction	2.86	(1.23)	1-5
Marital Status [a]	.64	(.48)	0-1				

Source: 1995 National Survey of Midlife in the U.S. (MIDUS), N = 3,032.

[a] Dichotomous variables are reported as proportions.

Note: Analyses used unweighted data.

Table 2

Estimated Unstandardized Regression Coefficients for Effects of Formal Religious Participation and Religious Social Identity on Three Dimensions of Subjective Psychological Well-Being

	Positive Affect		Negative Affect		Life Satisfaction	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Sociodemographic Controls:						
Age	.01***	.01***	-.01***	-.01***	.02***	.02***
Gender (1=Female)	-.09***	-.10***	.11***	.11***	.04	.03
Race (1=Black)	.16**	.14**	-.13**	-.12**	.23**	.19*
Education	-.04*	-.03*	-.03*	-.03*	-.10***	-.10***
Income	.00	.00	-.00	-.00	.00***	.00***
Employment Status	.04	.04	-.08**	-.07**	-.05	-.05
Marital Status	.06	.05	-.09**	-.08**	.33***	.32***
Parental Status	-.03	-.02	-.01	-.01	-.10	-.09
Self-Rated Health	.21***	.21***	-.17***	-.17***	.30***	.30***
Main Effects:						
Formal Religious Participation	.07***	.02	-.03***	-.01	.11***	.05
Relig. Social Identity	--	.07***	--	-.04*	--	.11***
Constant	2.25***	2.21***	2.74***	2.76***	.81***	.76***
R^2	.11	.11	.12	.12	.14	.14
Valid N	2807	2807	2803	2803	2824	2824

Source: 1995 Midlife Development in the U.S. (MIDUS), N = 3,032.

*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$ (two tailed).

Note: Analyses used unweighted data.

Table 3

Estimated Unstandardized Regression Coefficients for the Effects of Frequency of Formal Religious Participation on Strength of Religious Social Identity

Variable	Religious Social Identity
Age	.00***
Gender	.11**
Race	.32***
Education	-.03*
Income	.00
Employment Status	-.01
Marital Status	.06*
Parental Status	-.06
Self-Rated Health	-.00
Formal Religious Participation	.63***
Constant	.51***
R^2	.53
Valid N	2848

Source: 1995 Midlife Development in the U.S. (MIDUS), N = 3,032.

*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$ (two tailed).

Note: Analyses used unweighted data.

Center for Demography and Ecology
University of Wisconsin
1180 Observatory Drive Rm. 4412
Madison, WI 53706-1393
U.S.A.
608/262-2182
FAX 608/262-8400
comments to: egreenfi@ssc.wisc.edu
requests to: cdepubs@ssc.wisc.edu