The nexus between religion and mental health in the East has been understudied, where the coexistence of multiple religions calls for scholarly attention to religious identification. This article investigates the impact on self-reported depression of an individual’s identification with Christianity in a non-Judeo-Christian and religion-regulating social setting. Taking advantage of the Chinese General Social Survey 2010, our empirical analyses suggest that people who explicitly identify with Christianity report a significantly higher level of depression compared with both religious nones and self-claimed Buddhists. In contrast, there is no significant difference in self-reported depression between religious nones and self-identified Buddhists. This study supplements current literature on the connection between religious affiliation and mental health with a particular interest in East Asia, suggesting that the consequence on mental health of religious identification is contingent on a religion’s social status, and a religion’s marginal position may turn religious identification into a detrimental psychological burden.

Keywords: religious identification, mental health, self-reported depression, contextual effect, China.

INTRODUCTION

One long-standing theme of social science research concerns the link between religion and psychological distress (e.g., Koenig 1998; Schumaker 1992). There is worldwide growth in the epidemic of major depression (WHO 2014). While the genome-wide presence of depression is significant and psychiatrists have confirmed the hereditary aspect of depression, there is growing interest in the social influences on depression, such as adverse economic events, disrupted social networks, and cultural regulations. After all, depression is a product of both external stimuli and individual susceptibility (Belsky and Pluess 2009; Monroe and Simons 1991). It has been estimated that environmental influences account for 30 to 60 percent of variations in major depression (Eley 2001; Silberg et al. 1999), among which the sociocultural factors are particularly important (Piccinelli and Wilkinson 2000; Silberg et al. 1999). In this regard, previous literature has convincingly demonstrated how adverse social conditions lead to greater levels of cumulative stress, interrupt endocrinial hormone regulation, damage self-efficacy, and ultimately result in depression (Hill and Angel 2005; Mirowsky and Ross 1990; Pearlin et al. 1981).

One of the most important sociocultural factors is religious engagement, and the impact of this on psychological well-being has recently gained considerable attention from scholars and policymakers alike (for a review, see Ellison 1991; Koenig 2009; Koenig, King, and Carson 2012). Religious engagement consists of multiple dimensions (Glock and Stark 1965). To date,
the aspects of religious involvement examined in the literature mostly concern measures of behavior and belief, such as religious participation, prayer, subjective religious salience, and religious coping activities (for a review, see Koenig 1998, 2009; McCullough and Larson 1999). The dimension of religious identification has not received comparable attention.

This is inadequate, as individual religious practices and beliefs alone fail to appreciate a particular religion as an institution embedded in the broader social environment. The exact kind of embeddedness, which has great implications for adherents’ psychological distress, is individually adopted through religious identification. Furthermore, most previous studies on the connection between religion and health have been conducted based on evidence collected in a Judeo-Christian context; however, over the past few decades, scholars have become increasingly interested in how religion alters adherents’ mental health status under different sociocultural conditions (e.g., Cadge, Levitt, and Smilde 2011; Wei and Liu 2013). In many non-Judeo-Christian societies, especially Eastern ones, multiple major religions coexist, so interidentity differences, in terms of their mental health implications, are of academic interest and call for meticulous investigation.

Against this background, this article presents a case study of mainland China. Unlike societies of the Judeo-Christian tradition, China has been assuming a core position in the Confucian cultural circle (Inglehart and Baker 2000). Unlike societies with an unregulated religious market, China, since the Mao Era, has had state surveillance over, and restrictions on, various religious affairs (Yang 2006). Unlike societies with reserved public attitudes toward atheism (e.g., the United States) (Edgell, Gerteis, and Hartmann 2006), a considerable proportion of Chinese citizens claim to be religious nonbelievers (Yang and Hu 2012). In light of these unique features, we believe that this article adds an interesting case study to the existing literature.

Specifically, this study analyzes representative survey data collected in China, and examines how identification with Christianity, a highly regulated and culturally marginal religion in a non-Judeo-Christian society, is associated with self-reported depression. Depression levels are considered in relation to those of survey respondents with no explicit religious adherence, and to those who identify with a socially approved religion, i.e., Buddhism. The significantly higher level of self-reported psychological disturbance found among Chinese Christians suggests that the mental health consequence of religious identification is contingent on a religion’s social status; in other words, a religion’s marginal position adversely affects adherents’ mental health.

**Theoretical Framework**

**Religion and Psychological Well-Being**

The link between religion and psychological well-being has been well documented in studies from various disciplines. Scholars generally acknowledge that religious involvement can be a source of comfort that helps alleviate adherents’ subjective disorders and depressive symptoms (for a review, see McCullough and Larson 1999). This desirable effect has been affirmed with regard to many indicators of religious involvement, such as intrinsic religious orientation (e.g., Genia and Shaw 1991), the perceived importance of religion (e.g., Miller et al. 1997), religious self-perception (e.g., Elissen, Taylor, and Lloyd 2005), and religious attendance (e.g. Hayward et al. 2012; Idler and Kasl 1992). In addition, religious involvement has been found to reduce depression by buffering stressors (e.g., Koteskey, Little, and Matthews 1991; Lytle et al. 2015; Ysseldyk, Matheson, and Anisman 2010), and inducing positive emotional mechanisms, such as happiness (Green and Elliott 2010), life satisfaction (Greenfield and Marks 2007), and self-esteem (Keyes and Reitzes 2007).

Despite the ample evidence for the abating effect of religion on psychological distress, religious identification, one important facet of religiosity, has been understudied. To date, we have accumulated limited information regarding mental health disparities across religious affiliations.
Previous studies—at least those conducted in the United States—generally depict a higher level of depressive disorders among Jews (Levav et al. 1997) and religious nones (Weber et al. 2012) compared to Christians. However, due to the dominance of the Christian population (Protestants and Catholics), it is not known how identification with Christianity relates to depression in contrast to any other major world religions (e.g., Buddhism), not to mention the mental health effect of Christian identification in cases where Christianity assumes a marginal status in a society. As explicated in the following section, the marginal social position of a religion might incur negative consequences upon adherents’ mental health.

**Religious Identification, Marginalization, and Depression**

Religious identity can be heuristically defined as a special type of social identity that is anchored in a belief and symbol system (Ysseldyk, Matheson, and Anisman 2010). One theory that helps to understand the association between religious identification and psychological distress is the identity verification theory. This theory posits that an identity, as one’s self-definition in terms of the meaning one attributes to oneself, has a continuous dynamic with the realities of the social structures in which one is embedded (Merolla et al. 2012; Stryker, Serpe, and Hunt 2005). In this process, one compares his or her perceptions of self-relevant meaning in the situation—the reflected appraisals—with his or her religious identity standards or reference (Stryker 1980). If the reflected appraisals derived from social situations match the religious identity standards, identity verification occurs. However, if the perceived situational sense of “who one is” deviates from the identity standards, negative emotions, such as depression, are triggered.

As implied by this theory, one reason for the relevance of religious identification to mental health is that identification regulates the nature of the dynamic between social appraisals and a religious follower’s internal value, worldview, and code of behavior. The extent of concordance between the two determines whether religious identification incurs psychological distress. In the case of dissonance, a nonverified religious identity assumes a socially marginal position. This kind of marginalization creates the conditions for negative psychological outcomes by virtue of negative social sanction experiences, such as unfriendly comments, discrimination, stigmatization, open criticism, contempt, and social isolation (Friedman and Saroglou 2010; Jasperse, Ward and Jose 2012; Stavrova, Fetchenhauer, and Schlösser 2010; Ysseldyk, Matheson, and Anisman 2010). Psychiatric studies have long established that undesirable stress, both in terms of chronic stressors and daily hassles, “activates a diathesis transforming the potential of predisposition into the presence of psychopathology” (Monroe and Simons 1991:408).

Studies supporting the religious marginalization effect emerged as early as the 1960s, when Rosenberg (1962) found that children reared in neighborhoods that were similar to them in terms of religious affiliation had a significantly lower level of depression, relative to that of children raised in a dissimilar religious environment. Rosenberg’s idea has been tested and confirmed by more recent literature. For example, Williams and Hunt (1997) show that Muslims living in Scotland, as a religious minority group, suffer more from depressive symptoms than non-Muslims. Nicholson, Rose, and Bobak (2009) analyze cross-sectional data from the second round of the European Social Survey and conclude that the positive effect of being religious on self-reported health declines as the societal environment becomes increasingly secular, a finding that is also affirmed in Okulicz-Kozaryn (2010) and Diener, Tay, and Myers (2011). Similarly, Huijts and Kraaykamp examine 28 countries from the European Social Survey and document a pattern where “the health advantage of Protestants as compared to Catholics is greater as the percentage of Protestants in a country is higher, yet smaller as countries have a higher percentage of Catholics” (2011:91). The extent of religious marginalization also has much to do with a society’s religious regulation. Along this vein, Elliot and Hayward (2009) and Hayward and Elliot (2014), using the World Value Survey, show that the association between participation
in organized religion and life satisfaction is positive in a lowly regulated environment, but the association is reversed and correlates negatively in a social setting with rigid religious regulation. Lastly, the religious marginalization theory also draws evidence from the elevated likelihood of depression among religious nonbelievers, such as atheists, in a religious environment (Brown and Gary 1994; Koenig et al. 1992; Weber et al. 2012).

It is worth mentioning that our research objective is not to directly test the process of identity verification, which in fact cannot be accomplished without more nuanced information about the micropsychological process.\(^1\) The reason the identity verification theory is relevant here is that it clearly informs us how the social position of a religion, by virtue of its dynamic with the broader social-political order, moderates the nature of the effect of religious identification on one’s mental health. Another caveat of relevance is that religious identification is examined in this study as a type of group “marker,” which is tied to social approval or sanction; it is not our intent to use religious identification to gauge how religious someone is. In this light, the reasoning of our arguments builds on the social position—mainstream or marginal—of a religion, instead of the extent of individual devotion to a religion. This perspective differs from previous studies on the psychological effect of religion (Exline, Yali, and Sanderson 2000; Hamblin and Gross 2013; Jasperse, Ward, and Jose 2012), which gravitate more toward such factors as spiritual struggles (Ellison et al. 2013), religious doubt (Krause and Wulff 2004), and interpersonal conflict (Ellison and Lee 2010).

The China Case

To date, research on the health implications of religion in the context of Chinese society is relatively rare. Among the limited number of studies, most focus on religious practices or unique Chinese religious beliefs instead of the identification dimension of religiosity. For example, Liu (2011) verifies a positive association between fatalistic voluntarism and life satisfaction using the 2007 Chinese Spiritual Life Survey (CSLS). However, in Taiwan, belief in karma, belief in one supreme god, and prayer are negatively associated with a sense of mastery (Liu 2009). Zhang (2008) notes that religious participation is significantly associated with a lower risk of mortality for oldest old women and for individuals in poor health. A subsequent study by Liu, Koenig, and Wei (2012) examines different popular religious beliefs in Taiwanese society (e.g., the belief in karma, the belief in a supreme god, etc.), but mixed results were obtained. A study by Yeager et al. (2006) shows that religious attendance is significantly associated with lower mortality, but private religious practices and religious beliefs are linked with worse health conditions. In a recent study focusing on young women in rural China, Wei and Liu (2013) detect an inverted U-shaped pattern between intrinsic religiosity and depression. Lastly, Lu and Zhang (2016) find no significant difference between Christians and non-Christians in terms of their psychological well-being score in mainland China, but the research is mainly descriptive and does not control for socioeconomic background variables.

To test the religious marginalization mechanism, we take Christianity (Protestantism and Catholicism) as a representative marginal religion, and compare its adherents with religious nones (as defined to have no formal religious affiliation)\(^2\) and members of a prevalent world religion (Buddhism). Note that, in this study, we do not consider Chinese folk religion, Confucianism,
and Daoism because of their highly diffused and syncretic nature of religious identification (Leamaster and Hu 2014). Islam is not examined to avoid potential overlap between religious and ethnic identities in China (Gladney 1996).

To place readers into perspective, it is necessary to first introduce the current state of Christianity in Post-Reform China. Studies of Chinese religions generally describe a revival in Christianity in the Reform Era (e.g., Hu 2017; Hu and Leamaster 2015; Yang and Hu 2012). In contrast to the draconian state suppression that began in the 1950s and the state-driven elimination of all religions from the entire society during the Cultural Revolution, the market-oriented society, from the late 1970s onward, has loosened religious regulation and has bestowed Christianity with more space to develop (Bays 2011; Leung 2005). Against this background, many studies report evidence of a notable growth in Christianity. For instance, Bays mentions that “today, on any given Sunday there are almost certainly more Protestants in church in China than in all of Europe” (2003:488). Aikman (2003) also predicts that over the few decades of the 21st century, one-third of China’s population could become Christian.

Despite the revival, Christians, as a body of religious followers, still occupy a marginal position in Chinese society. This can be clearly seen in the relatively small estimated number of adherents. For instance, the 2007 CSLS, the first nationwide representative survey on Chinese citizens’ religious lives, revealed that the percentage of self-identified Christians (including both Protestants and Catholics) was only 3.15 percent. The Chinese General Social Survey (CGSS) 2010 added, for the first time, a religion module to the general social survey questionnaire and those identifying themselves as Christian only made up 2.23 percent.

Several factors account for the marginal position of Christianity in Chinese society. The foremost factor concerns the cultural tradition. As highlighted frequently by previous studies, China, culturally speaking, belongs to the Confucian civilization circle (Inglehart and Baker 2000). Therefore, relative to societies in the Judeo-Christian circle, China is not equipped with the cultural conditions and foundation for Christianity to take a major role in people’s spiritual lives. Moreover, an antagonistic relationship between Christianity and Confucianism has often been assumed by scholars and ordinary citizens. Compared with Christianity, Chinese citizens are much more familiar with indigenous spiritual practices and beliefs—i.e., fortune telling or observing the wind and water (fengshui) (Hu and Leamaster 2013).

Second, relative to other religions, Christianity in modern China suffers more from various critiques and restrictions, named by Cohen as “the anti-Christian tradition in China” (Cohen 1962). This has especially been the case since 1949. Due partly to the purported falling of Christianity under a foreign religious or political authority, and partly due to it being a suspected political threat as a well-organized social force, Christianity suffered from the state’s draconian regulation and harsh suppression of the Mao Era (e.g., Fox 2015; Grim and Finke 2011). In the Reform Period (post-1970s), although the official policy toward Christianity was softened, the state has continued to exert constant surveillance over Christians’ religious lives through the patriotic religious associations, the Religious Affairs Bureau, and the United Front Department (Fallman 2010). In light of this, Christianity faces more challenges that deter its assuming a major social status.

Third, a certain tension between Christianity and Chinese culture has been noted in field research. For instance, Chinese scholar Gao Shining (2010) illustrates this tension based on evidence collected in Yunnan and Guizhou, where local Christian residents have an antagonistic

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3Most surveys did not count the number of house church members, except for Yu (2010). Even according to Yu’s estimate, the percentage of Christians including house church members is 5.3 percent.

4This is exactly the estimate provided by the Contemporary Chinese Spiritual Life Survey of East China Normal University.

5For instance, viewing Qufu (the hometown of Confucius) as the holy place of Confucianism and Christianity as an alien religion, many Chinese intellectuals appeal to terminate a church building project in Qufu (Guo et al. 2010).
relationship with non-Christian residents because they refuse to practice traditional Chinese funeral rituals, such as kowtowing, crying, and burning paper money for the deceased. This kind of cultural conflict is another factor in the marginalization of Christianity in Chinese society.

Altogether, the lack of a Judeo-Christian cultural tradition, the persistence of the state’s religious restrictions, and the potential for tension with some traditional norms all bestow Christianity with a marginal status in contemporary China, a fact that is embodied by its followers’ relatively small share in the population. Hence, in accordance with the religious marginalization mechanism discussed above, we hypothesize that those who identify with Christianity should report a higher level of depression, relative to people having no explicit religious identity, or people who identify with a nonmarginal religion (e.g., Buddhism).

**Methodology**

**Sample**

In this article, we take advantage of the 2010 wave of the CGSS 2010 to study how Christian identification influences citizens’ self-reported psychological distress. The CGSS 2010, as the counterpart to the U.S. General Social Survey, is a nationwide survey with respondents who represent the adult population (≥ 16 years old). The CGSS 2010 adopted a multilevel random sampling strategy and covered 22 provinces (omitting Tibet), four autonomous regions, and four municipalities affiliated directly with the central government. The sample size of the CGSS 2010 is 11,785.

As the 2010 wave of a long-term project since 2003, the CGSS 2010 benefits from a well-established survey implementation procedure, which guarantees its sampling quality and data representativeness (for more information, see http://www.chinagss.org/). In contrast to the previous rounds, the CGSS 2010 added a questionnaire module pertaining to people’s religious lives. The questions included in this module are of high quality and have been used and tested in previous respected surveys, e.g., the CSLS conducted in 2007.

Despite these merits, some caveats and limitations are worth mentioning. One caveat concerns the possibility that individuals in a polytheistic society may maintain multiple religious identities (Gries, Su, and Schak 2012). Such a possibility is not accommodated in the CGSS 2010, where, like many other large-scale surveys, respondents may only choose one religious identity from a given list. However, as discussed by Yang and Hu (2012), respondents in China are generally likely to choose the religious identity most relevant to them in a survey, even if they can choose multiple options.

Another caveat is a common issue in survey research about religion: the social desirability bias (Kreuter, Presser, and Tourangeau 2008). Considering the precarious position of Christianity in China, this concern could be genuine. One way to evaluate social desirability bias is to compare the estimated number of Christians with numbers obtained from other surveys (Edgell, Gerteis, and Hartmann 2006). So far, the only comparable nationwide survey known to be of high quality is the CSLS. In the CSLS, using the same measure, the estimated percentage of self-identified Christians is 2.79 percent, which is statistically aligned with the estimate provided by the CGSS 2010. In light of the remarkable differences in sampling design and the survey implementation processes between the CGSS and the CSLS, this alignment suggests that social desirability bias is not a severe concern.7

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6The CSLS was designed by scholars from the United States and conducted by the Horizon Survey Company, which has been widely used by scholars to study Chinese religions. Unfortunately, the CSLS does not provide the measure for psychological distress.

7Another concern of the CGSS data is the representativeness of the religious-follower population. Unfortunately, so far, we do not have the census information for the religious population. In this regard, it is not clear whether or not the size of the Christian population estimated based on the CGSS is an unbiased estimate to the population characteristic.
Measures

Description of the items used in this study is presented in this subsection. The dependent variable under examination is people’s self-rated state of depression, measured by the extent to which one has been bothered by depression over the past four weeks (Depression). The options to this question are 1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = always.

In the current scholarship, there are over 800 different measures of depression, which can be categorized into mainly three types (Santor, Gregus, and Welch 2006). In clinical settings, psychiatrists tend to rely on diagnostic criteria, such as those provided in the Diagnostic and Statistical Manual of Mental Disorders. Symptom-based psychometric scales, on the other hand, are frequently employed outside of strict clinical settings, but are still administered by professionals. A third type of measurement is the self-rated scale, adaptable for both subjective and symptom-based evaluations. Self-rated measurement is mostly used in survey settings where professional diagnosis cannot be deployed. It has shown great validity and reliability even though it is less frequently used for diagnostic purposes (e.g., Lu and Zhang 2016; Xu and Yu 2016; Wang et al. 2015). In addition, subjective self-rated depression has shown good interitem correlation to other symptom-based scales (Abdel-Khalek 2006; Bazargan, Bazargan-Hejazi, and Baker 2005; Cheng and Furnham 2003).

For this study, even when the self-reported measure consists of only one item, depression rated by such an item still shows reliability and close association with other life-quality outcomes, such as mortality and symptom severity (Lefèvre et al. 2012; St John and Montgomery 2009; Zimmerman et al. 2006). A single-item measure of depression has been used for screening potential patients in clinical settings (Santor, Gregus, and Welch 2006). Since this study is more concerned with quality of life and mental well-being than clinical diagnosis, we believe it is legitimate to use a single-item self-reported depression scale as an indicator to identify contributing factors of depression. Furthermore, the CGSS 2010 randomly selected a small subsample of respondents to answer two extra questions: (1) Due to emotional problems, I cannot complete my routine job or daily tasks; and (2) Due to emotional problems, I cannot keep focused. We found that both of these two measures have a significant and positive correlation ($r = 0.52$ and 0.51, respectively) with self-reported depression at the 0.001 level, affirming the interitem reliability of our measure of choice.

The predictor of interest is a categorical variable with options 0 = Christian identification; 1 = religious none; and 2 = Buddhist identification. We set the reference group as self-identified Christians to highlight their differences from Buddhists and religious nones. As mentioned earlier, by “religious nones,” we are referring to those who claim to have no formal religious affiliation.

A series of control variables are considered in this study, including gender (1 = female; 0 = male), age, age square, educational attainment (years of formal education), log-transformed individual annual income, household registration status (1 = rural; 0 = urban), place of residence (1 = rural; 0 = urban), marital status (1 = unmarried; 2 = married or cohabiting; 3 = widowed, separated, or divorced), number of sons, number of daughters, and dummy variables representing different provinces.

Most of these covariates—such as gender, age, age square, educational attainment, log-transformed individual annual income, and marital status—are basic socioeconomic characteristics, so they should always be controlled for to estimate the net effect under investigation. However, some of the other control variables require explanation. The urban-rural difference matters for individuals’ psychological well-being because of the well-documented urban-rural disparity in access to social resources (Hesketh and Qu 2005; Treiman 2012). In addition, due to the persistence of the household registration system in contemporary China, both place of residence and household registration status are controlled for (for an introduction to the household registration system, see Afridi, Li, and Ren 2015). This is necessary because the concerted population mobility from rural to urban areas in Reform-Era China separates these two attributes
for many Chinese citizens (e.g., a rural-to-urban migrant has a rural household registration status but an urban residence) (Li 2008). The presence of children is considered because they could incur stress and strain due to the additional family responsibilities (Fellows et al. 2016). Lastly, we use the dummies of provinces to accommodate the well-known regional imbalance in terms of economic development, inequality, quality and quantity of mental health promoting institutions, and the number of adherents to different religions, to name a few factors (e.g., Lee 2007; Xie and Zhou 2014). In this regard, the geographical controls serve as the fixed effect terms to handle the regional-level factors that might confound the relationship between religious identification and depression.  

### Analytical Strategies

Due to the ordinal nature of the outcome variable, the ordered logistic regression, as formulated in model (1), is fitted.

$$\log \left[ \frac{P(Y \leq j)}{1 - P(Y \leq j)} \right] = \alpha_j + X\beta$$

In model (1), $j$ stands for each of the four levels of self-reported depression, relative to the reference level. $X\beta$ is the product of the matrix of all predictors (religious identification and the other control variables) and their coefficients, $\alpha_j$ is the intercept corresponding to level $j$, and $P(Y \leq j)$ is the probability of self-reported depression to be equal or below level $j$.

To check the robustness of our analytical results, a binary logistic regression and a propensity score analysis have been conducted. Due to space considerations, more details concerning these can be found in the Online Appendix. The missing rate of data is 9.38 percent, so we deploy multiple imputation for our analyses (Allison 2001).

### Results

#### Descriptive Patterns

Table 1 provides the descriptive information about the variables used in this study. Note that 2.24 percent of the sampled adults claim to identify with Christianity, in contrast to 5.72 percent of self-identified Buddhists. Moreover, 86.79 percent of the sampled adults are self-proclaimed religious nones. The gender distribution of our sample is balanced, with slightly fewer women (48.06 percent). The average age among the analyzed cases is 47.31 years, and the average duration of formal education is around nine years. The mean annual income is 19,022 Yuan. Note that 51.25 percent of our respondents have a rural household registration status, but 39.93 percent live in rural areas. This discrepancy is not surprising because many rural residents have mobilized to work in urban areas (Li 2008). Lastly, most respondents were married or cohabiting with a partner (81 percent) at the time of the survey. Partly due to the one-child policy, the average numbers of sons and daughters are both below one. However, note that not everyone in the CGSS

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8This fix effect approach adds 30 dummy terms to the model. Although it costs the degree of freedom, the concern of model overfit should not be severe in light of the large sample size. With that said, we conducted complementary analyses where we grouped provinces into three categories of eastern, middle, and western. Controlling for this newly generated variable returns similar substantive results. Moreover, no material change in substantive results is detected if we dropped the geographical controls entirely.

9The relatively small percentage of Christians among adults might statistically work to produce nonsignificant results in the following multivariate analysis. In this regard, the significant effect of identification with Christianity is rather good.
Table 1: Descriptive statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean/Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christian identification</td>
<td>2.24%</td>
</tr>
<tr>
<td>Buddhist identification</td>
<td>5.72%</td>
</tr>
<tr>
<td>Religious nones</td>
<td>86.79%</td>
</tr>
<tr>
<td>Gender (female)</td>
<td>48.06%</td>
</tr>
<tr>
<td>Age</td>
<td>47.31 (15.68)</td>
</tr>
<tr>
<td>Educational attainment</td>
<td>8.94 (4.97)</td>
</tr>
<tr>
<td>Individual annual income</td>
<td>19022.92 (79719.03)</td>
</tr>
<tr>
<td>Log (individual annual income)</td>
<td>9.26 (1.18)</td>
</tr>
<tr>
<td>Household registration status (rural)</td>
<td>51.25%</td>
</tr>
<tr>
<td>Place of residence (rural)</td>
<td>39.83%</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
</tr>
<tr>
<td>Unmarried</td>
<td>9.22%</td>
</tr>
<tr>
<td>Married or cohabiting</td>
<td>81%</td>
</tr>
<tr>
<td>Widowed, separated, or divorced</td>
<td>9.78%</td>
</tr>
<tr>
<td>Number of sons</td>
<td>.95 (.90)</td>
</tr>
<tr>
<td>Number of daughters</td>
<td>.84 (.95)</td>
</tr>
<tr>
<td>Depression</td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>32.14%</td>
</tr>
<tr>
<td>Rarely</td>
<td>33.87%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>23.06%</td>
</tr>
<tr>
<td>Often</td>
<td>9.18%</td>
</tr>
<tr>
<td>Always</td>
<td>1.76%</td>
</tr>
<tr>
<td>N</td>
<td>11,191</td>
</tr>
</tbody>
</table>

*Note: Standard deviation in parentheses.*

*Data Source: The CGSS 2010.*

2010 sample was subject to the one-child policy since it was not formally launched until the 1980s.

Concerning the variable of self-reported depression, around 10 percent (9.18 percent plus 1.75 percent) of respondents reported having been often or always depressed over the past four weeks, and the percentage of individuals who had not experienced a depressive disorder at all make up 32.14 percent of the sample.

To preliminarily illustrate the mental health outcome of identification with Christianity relative to the mental health of Buddhists and religious nones in China, we report the average level of self-reported depression respectively for the three groups, depicted in Figure 1. Seeing Figure 1, it is clear that the 95 percent confidence interval of the average self-reported depression for Christians is positioned above that of both self-identified Buddhists and religious nones. Comparatively, however, the 95 percent confidence intervals for Buddhists and religious nones overlap a great deal with each other. This pattern provides some descriptive evidence for the significant negative effect of identification with a marginal religion on mental health, in comparison with the mental health effects of either adhering to a prevalent religion or holding no explicit religious identity.

**Multivariate Analyses**

To better understand the nexus between Christian identification and self-reported depression, we conducted multivariate analyses using the ordered logistic regression model. The results are
presented in Table 2. We find that, net of the effects of other covariates, identification with Christianity is associated with a higher probability of suffering from a depressive disorder, relative to either identifying with Buddhism or being a religious none. Specifically, in relation to those of Christians, the odds of self-claimed Buddhists being depressed are 28.11 percent \((1 - \exp^{-0.33})\) lower, and the reduction in the odds of self-reported depression for religious nones is 22.89 percent \((1 - \exp^{-0.26})\). Both results are statistically significant.

Hence, the multivariate analyses suggest that identification with a marginal religion, such as Christianity in China, is associated with a worse psychological condition, compared with individuals who identify with the prevalent religion of Buddhism and those who have no formal religious identity. In this regard, our hypothesis has been affirmed.

Before concluding this section, we would like to examine whether self-identified Buddhists have a different mental health status relative to religious nones. This analysis reveals whether those who identify with a prevalent religion suffer from comparable depressive symptoms to religious nones. According to our theoretical reasoning, this should be unlikely because neither group is socially marginal, so we hypothesize that self-identified Buddhists and religious nones are not significantly different in terms of their self-reported psychological statuses.

The analytical results presented in Table 3 support this hypothesis, where the ordered logistic regression reports a nonsignificant effect on mental health from identification with Buddhism, relative to religious nones. This result, together with the above-presented findings pertaining to Christian identification, implies that the mental health burden of identification with Christianity is driven not by facts associated with religious adherence itself, but by the fact that this adherence is to a socially marginal religion.

**CONCLUDING REMARKS**

By focusing on a major Eastern country where multiple religions coexist, this study examines how identification with Christianity, a marginal religion in a non-Judeo-Christian and religion-regulating social setting, is associated with self-reported depression. Taking advantage of the CGSS 2010, our empirical analyses show that people who explicitly identify with Christianity have a higher level of self-reported depression, relative to both religious nones and self-proclaimed Buddhists. However, no significant difference exists between Buddhists and religious nones. This study, by adding to current literature with an understudied Eastern case, suggests that the effect
Table 2: Effect of Christian identification on self-reported depression relative to religious nones and Buddhist identification: the ordered logistic regression

<table>
<thead>
<tr>
<th>Religious identification (reference = Christian identification)</th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| **Buddhist identification**                                   | -.33 | (.11) | **
| **Religious nones**                                           | -.26 | (.13) | *
| Gender (female)                                               | -.14 | (.04) | ***
| Age                                                           | .04  | (.00) | ***
| Age²                                                          | -.00 | (.00) | ***
| Educational attainment                                        | -.03 | (.00) | ***
| Log (individual annual income)                                | -.16 | (.03) | ***
| Household registration status (rural)                         | -.1  | (.05) | #
| Place of residence (rural)                                    | .06  | (.05) |  |
| Marital status (reference = unmarried)                        |  |
| Married or cohabiting                                         | -.35 | (.08) | ***
| Widowed, separated, or divorced                               | .03  | (.10) |  |
| Number of sons                                                | .07  | (.03) | **
| Number of daughters                                           | .05  | (.02) | **
| Dummies for provinces                                         | √    | √    | √
| Cut1                                                          | -1.75| (.33) |  |
| Cut2                                                          | -.23 | (.33) |  |
| Cut3                                                          | 1.27 | (.33) |  |
| Cut4                                                          | 3.24 | (.34) |  |
| LR chi²                                                       | 5526.1 | | ***
| N                                                             | 11,145 | |  |

Note: Key variables have been boldfaced. *p < 0.1; **p < 0.5; ***p < 0.01; ****p < 0.001 (two-sided test).

Data Source: The CGSS 2010.

of religious identification on mental health is contingent on the social position of the religion in question. A religion’s marginal social position reduces the potential psychological benefits of religious affiliation; rather, adherence may become a detrimental psychological burden.

One implication of this study is to underscore the role of social context in moderating the health consequences of religion. Despite the widely documented health promoting effect of Christian religiosity in many Western societies, a shift in social context to a setting like China produces a different and even opposite substantive pattern. This finding responds to the literature on the significance of national religious context. For instance, Van Tubergen, te Grotenhuis, and Ultee (2005) highlight that an increase in the number of religious adherents in a municipality significantly reduces the suicide rates for every denomination in that municipality, as well as among nonchurch members. These studies, along with the current one, call for more attention to the dynamic between a religion and its social environment when interrogating the social consequences of religious adherence.

Although this study documents the negative effect of identification with a marginal religion on one’s mental health, the generalization of this conclusion to other types of social group should be made with caution. This is because a marginal social status, in certain situations, can generate a positive link between group identification and mental health outcomes. For instance, identification can serve as a protective resource, of which group members take advantage to reinforce their commonness, improve their resilience, and protect themselves from potential risks or discrimination (e.g., Bierman 2006). In previous literature, this mechanism has been detected among ethnic minorities, who draw on their ethnic identity to buffer the negative effects of discrimination from the broader society (e.g., Mossakowski 2003; Phinney 1991).
Table 3: Effect of Buddhist identification on self-reported depression relative to religious nones: the ordered logistic regression

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buddhist Identification (reference = religious nones)</td>
<td>.06</td>
<td>(.08)</td>
<td>***</td>
</tr>
<tr>
<td>Gender (female)</td>
<td>-.14</td>
<td>(.04)</td>
<td>***</td>
</tr>
<tr>
<td>Age</td>
<td>.04</td>
<td>(.01)</td>
<td>***</td>
</tr>
<tr>
<td>Age$^2$</td>
<td>.00</td>
<td>(.00)</td>
<td>***</td>
</tr>
<tr>
<td>Educational attainment</td>
<td>-.03</td>
<td>(.01)</td>
<td>***</td>
</tr>
<tr>
<td>Log (individual annual income)</td>
<td>-.16</td>
<td>(.03)</td>
<td>***</td>
</tr>
<tr>
<td>Household registration status (rural)</td>
<td>-.11</td>
<td>(.05)</td>
<td>*</td>
</tr>
<tr>
<td>Place of residence (rural)</td>
<td>.06</td>
<td>(.05)</td>
<td></td>
</tr>
<tr>
<td>Marital status (reference = unmarried)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married or cohabiting</td>
<td>-.35</td>
<td>(.08)</td>
<td>***</td>
</tr>
<tr>
<td>Widowed, separated, or divorced</td>
<td>.03</td>
<td>(.10)</td>
<td></td>
</tr>
<tr>
<td>Number of sons</td>
<td>.07</td>
<td>(.03)</td>
<td>**</td>
</tr>
<tr>
<td>Number of daughters</td>
<td>.06</td>
<td>(.02)</td>
<td>*</td>
</tr>
<tr>
<td>Dummies for provinces</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cut1</td>
<td>-1.42</td>
<td>(.31)</td>
<td></td>
</tr>
<tr>
<td>Cut2</td>
<td>.09</td>
<td>(.31)</td>
<td></td>
</tr>
<tr>
<td>Cut3</td>
<td>1.59</td>
<td>(.31)</td>
<td></td>
</tr>
<tr>
<td>Cut4</td>
<td>3.57</td>
<td>(.32)</td>
<td></td>
</tr>
<tr>
<td>Chi$^2$</td>
<td>5293.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>10,859</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Key variables have been boldfaced. *p < 0.1; **p < 0.5; ***p < 0.01; ****p < 0.001 (two-sided test).

Data Source: The CGSS 2010.

This school of research on the positive effect of ethnic identity poses an interesting question for our study: Why do marginal Christians in China not utilize their religious identity to overcome the risks of the social environment and to reduce psychological distress? A comprehensive examination of this question goes beyond the scope of this article, but one reason, we suspect, is that the formal or informal social restrictions imposed upon Christians in China are so overwhelming that the negative consequences of Christian identification override the possible positive psychological benefits. Thus, identification with Christianity could become a comfort for adherents if the regulations and restrictions are lifted in the future.

Several limitations of this study are to be acknowledged. First, as discussed above, the cross-sectional design determines that we cannot ensure a strict time order between religious identification and self-reported depression. Although the propensity score method shown in the Online Appendix provides some statistical evidence for a causal interpretation of the analytical results, longitudinal data are always necessary to directly verify the causal chain (e.g., Lim and Putnam 2010). Second, further improvement to the empirical measure of depression is needed, especially the construction of a mental health index based on both subjective and objective items. Third, one key concept in this study is the marginalization experienced by those who have a Christian identity, but it is not directly gauged in the CGSS 2010. Further research would thus benefit from collecting information pertaining to religious marginalization, both objective and subjective. In light of this, two promising research directions are foreseen. One is to compare adherents of the state-supported Three Self Patriotic Movement Church with those of house churches, since the latter, in relation to the former, are much more marginalized in China due to the state’s regulations and restrictions. The other is to directly examine the degree of minority status, as defined, for example, by the proportion of Christians in the surrounding contextual unit.
Both directions, however, call for more nuanced data (e.g., the information of house churchgoers and the social network structure of Christians).

Notwithstanding these limitations, this study stands as a theoretically meaningful exploration into the association between Christian identification and self-reported depression in Chinese society. Although preliminary, it provides affirmative evidence for the moderating effect of social status on the health-religion nexus in an understudied society. In this regard, this study prepares the way for future explorations in China as well as in other societies.

REFERENCES


CHRISTIAN IDENTIFICATION AND SELF-REPORTED DEPRESSION


**SUPPORTING INFORMATION**

Additional Supporting Information may be found in the online version of this article at the publisher’s website:

**Appendix I.** Robustness to the Concern About the Region of Variation.

**Appendix II.** A Methodological Note on the Propensity Score Analysis and Sensitivity Analysis.

**Figure A1.** Results of the Sensitivity Analysis.

**Table A1.** Results of the Binary Logistic Regression: Reference Is Christian Identification.

**Table A2.** Results of the Binary Logistic Regression: Comparison Between Religious Nones and Buddhists.

**Table A3.** Results of the Logistic Regression Models Predicting Propensity Scores.

**Table A4.** Results After Propensity Score Weighting.

**Table A5.** The OLS Result for the Association Between Religious Identification and Self-Reported Depression.