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CENTER FOR BIBLE ENGAGEMENT

**Bible Engagement & Social Behavior:
How Familiarity & Frequency of
Contact with the Bible
Affects One's Behavior**

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Abstract

Regardless of their religious preference, most people deal daily with the temptation to engage in behaviors that they desire to avoid, either because they are morally wrong or are harmful in some way. Studies examining issues of religion and spirituality typically focus on individual beliefs and behaviors such as attendance at religious services and prayer. The limited studies concerning scriptural engagement generally do not go beyond documenting people's Bible reading habits and knowledge. The Center for Bible Engagement has adopted a different approach. Our research focuses on why so many people own Bibles, but never read them, and once this is discovered, to find a solution. In our four years of research, including several surveys with over 40,000 respondents, we have discovered that familiarity and contact with the Bible provides a level of protection against temptation and is correlated with less involvement in risky behaviors, such as pornography and destructive thoughts. The relationship between temptation and Bible engagement is a complex one, however, with temptation itself sometimes acting as a barrier to Bible reading.

Bible Engagement & Social Behavior: How Familiarity & Frequency of Contact with the Bible Affects One's Behavior

Regardless of their religious preference, most people deal daily with the temptation to engage in behaviors that they desire to avoid, either because they are morally wrong or are harmful in some way. These behaviors can range from gossip and alcohol use to pornography and destructive thoughts about oneself and others.

Studies examining issues of religion and spirituality typically focus on individual beliefs and behaviors such as attendance at religious services and prayer. The limited studies concerning scriptural engagement generally do not go beyond documenting people's Bible reading habits and knowledge (for one exception, see Wiggins, Uphold, Shehan, & Reid, 2008). This is unfortunate because the Bible has much to say about temptation and moral behavior.

The Center for Bible Engagement (CBE) at Back to the Bible adopted a different approach to the question of temptation, risky behaviors, and spirituality. The CBE exists to find out why so many people own Bibles but never read them, and once this is discovered, to find a solution. We don't want to simply scientifically prove that people do not read their Bibles or document the vastness of Bible illiteracy across the United States. Rather, we exist to find out *why* that is and to *do something* about getting people engaged daily in God's Word.

CBE's research over the past few years has led to several discoveries about the relationships among temptation, risky behavior, and spiritual disciplines such as attendance at religious services, prayer, and Bible reading. We have discovered that familiarity and contact with the Bible provides a level of protection against temptation and is correlated with less involvement in risky behaviors, such as pornography and destructive thoughts. Moreover, Bible engagement is a strong and consistent predictor of lower risk of involvement in risky behaviors that is largely independent from other aspects of spirituality.

Methods

Over the past four years, CBE has conducted several web-based surveys with over 40,000 people from across the United States. The surveys include a combination of closed-ended and open-ended questions focused on: religious preference and beliefs; religious service attendance; engagement in prayer and Bible reading; daily temptations; and engagement in risk behaviors such as pornography and destructive thoughts.

About three-fifths (61.8%) of respondents were women. Survey participants range in age from 13 to over 75, with a mean of 44.8 years (standard deviation = 14.7) and a median of 47 years.

Most survey respondents (80.9%) identify themselves as White. A little less than one-tenth (8.9%) were African-American.

The majority (66.5%) were married. About one out of five were either divorced (11.3%) or single/never married (17.2%). Only 1.5% of respondents indicated that they were "living with a significant other".

Those who completed the surveys were fairly well-educated. Nearly half (44.0%) had at least a college degree. An additional 30.9% had some college education.

Patterns of Bible Engagement

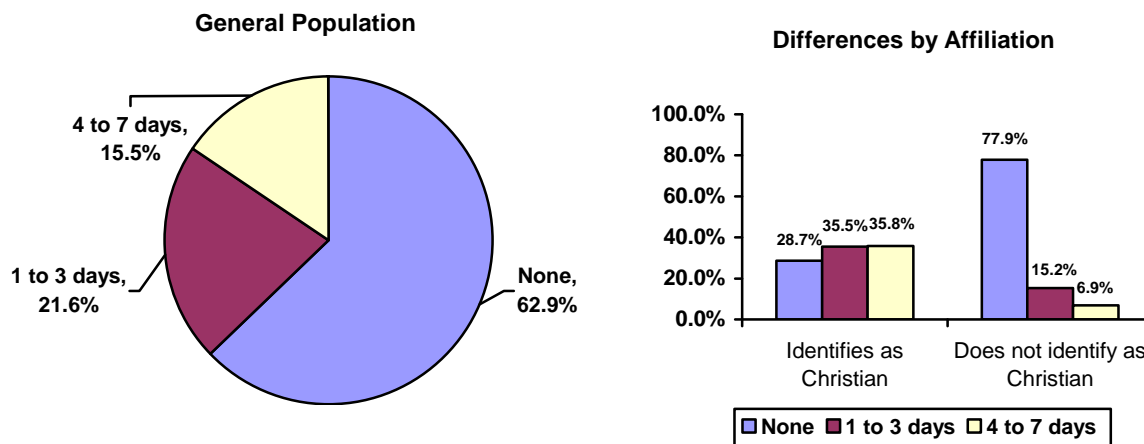
The Bible is the best-selling book of all time. As recently as 2008, a Harris Poll indicated that U.S. adults still claim the Bible as their favorite book. Despite these signs of popularity, there is also overwhelming evidence that we face today a crisis of biblical illiteracy among citizens of all ages. Recent studies by The Barna Group and the Gallup Organization conclude that any reasonable understanding of biblical facts and truths is seriously lacking among Americans. According to a 2001 Gallup poll, the average American household has four Bibles, yet readership of the Bible has declined from 73% in the 1980s to 59% today. The percentage

of frequent readers, that is, those who read the Bible at least once a week, has decreased slightly over the last decade as well, from 40% in 1990 to 37% today.

In our research, we have found similarly low rates of scriptural engagement. Figure 1 displays Bible reading/listening frequency among a random sample of 2,967 Americans. Nearly two-thirds (62.9%) indicated that they had not read the Bible at all in the previous week. One-fifth (21.6%) read or listened to the Bible on one to three days and 15.5% had four or more days. In contrast, a recent Rasmussen Report (March 4, 2009) shows that about half of the population reads a print newspaper at least several times a week.

Bible reading patterns differ markedly by religious affiliation. In particular, as shown in the right graph in Figure 1, those who identify themselves as Christians are significantly more likely to read or listen to the Bible.

Figure 1. Bible Reading Patterns among American Teens & Adults.



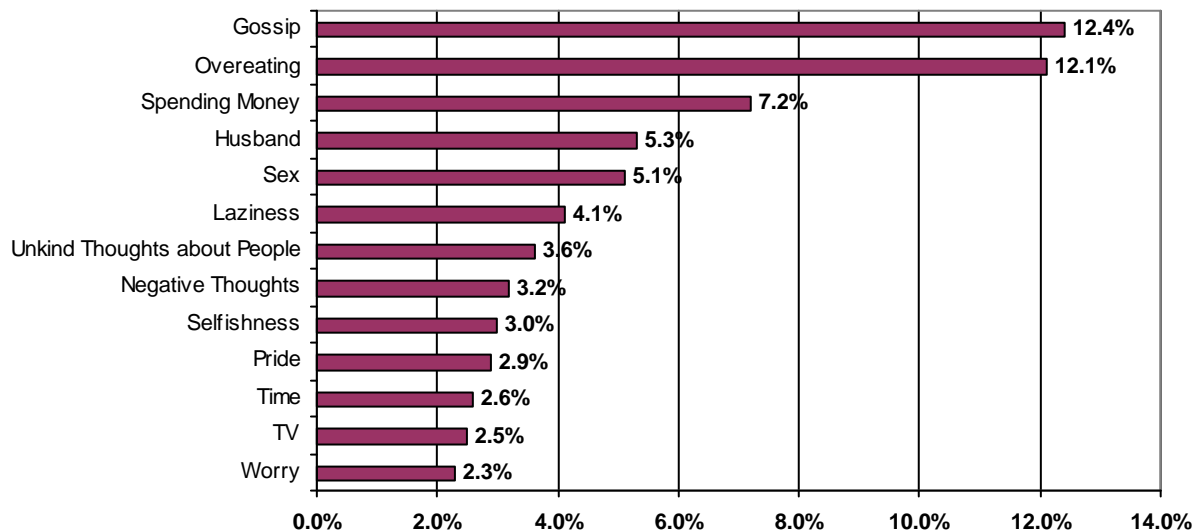
Involvement in other spiritual disciplines, namely prayer and attendance at religious services, is much more common. Two out of three (67.9%) Americans pray at least once a day and two-fifths (40.1%) attend religious services at least once a month.

Temptations

CBE's research has also explored the role temptation plays in people's lives. That is, to what extent do people feel the desire to have or do something that they know they should avoid? Among the general population, 52.3% of adults say that they were tempted at least once the previous day. Responses to this question vary significantly by religious affiliation, ranging from under one-third among those identifying themselves as Jewish or having no religious preference to about two-thirds among various Christian denominations and Muslims.

Answers from open-ended questions about what temptations are the most frequent differ dramatically between women and men. As Figure 2 shows, women report a wide variety of temptations, none of which account for much more than one-tenth of the total responses. Gossip (12.3%) and overeating (12.1%) are the most common temptations for women, although each accounted for only a minority of female respondents.

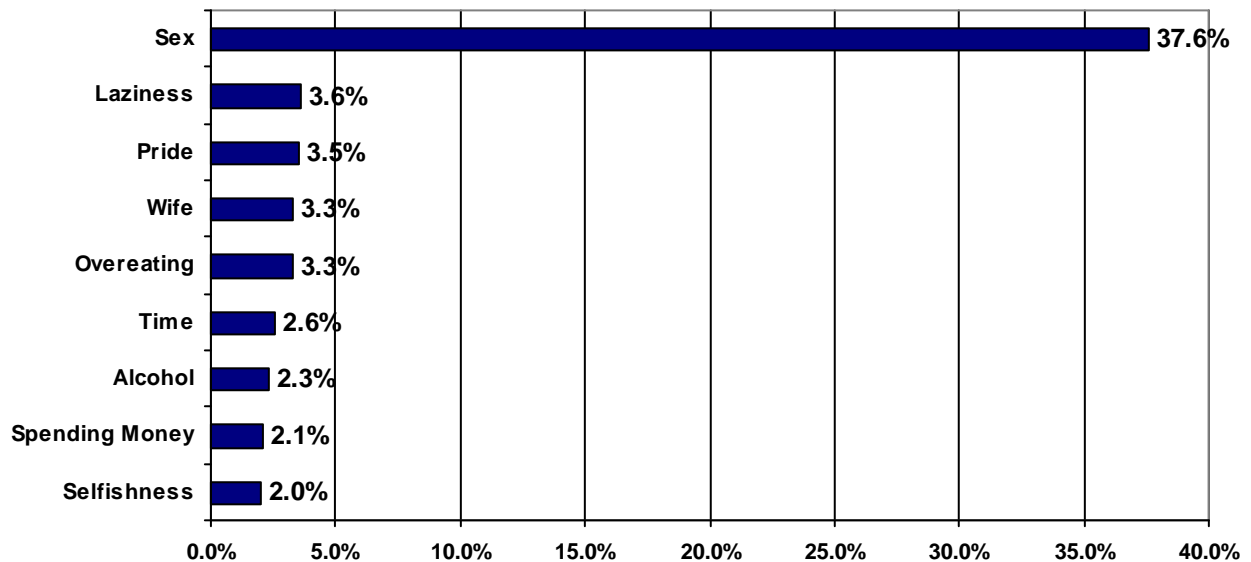
Figure 2. Most Frequent Temptations for Women.



For men, temptations related to sexuality are most common. In fact, nearly two-fifths (37.6%) of all responses from men about their most frequent temptation concern sex. As

shown in Figure 3, the temptation of sex was reported ten times more by men than the second most frequent temptation (laziness).

Figure 3. Most Frequent Temptations for Men.

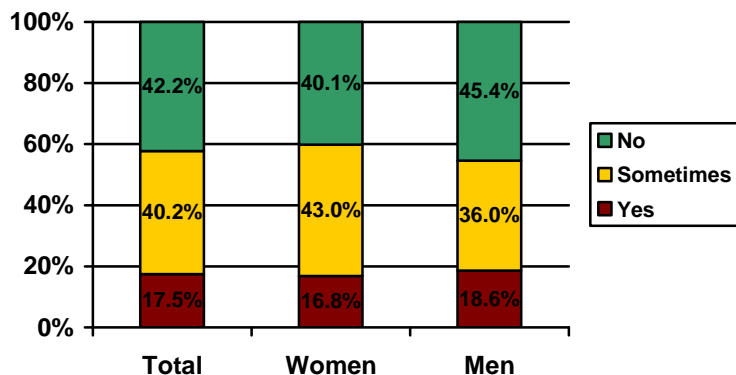


The temptations respondents named as the most difficult were very similar to those they indicated as most frequent. For women, gossip (12.6%) and overeating (12.0%) topped the list of most difficult temptations. For men, sexual issues were the most difficult, named by two out of every five (38.7%) male respondents.

When asked whether they yielded to the temptation or not, most people say they did, at least some of the time. As shown in Figure 4, one-fifth responded "yes" to the question about giving in to temptation and an additional two-fifths answered "sometimes 'yes', sometimes 'no'".

Men were significantly more likely than women to indicate that they did not yield to temptation. It is very likely that yielding is related to the type of temptation (e.g., sex vs. gossiping) and so the differences observed in Figure 4 may result from the different types of temptation men and women face, rather than any fundamental difference in ability to resist enticement.

Figure 4. Yielding to Temptation – General Population.



Strategies for Resisting Temptation

A unique feature of CBE's research is the use of open-ended questions asking about strategies respondents use to resist temptation. Qualitative analyses of the answers given to these questions reveal a wide variety of strategies from diverting one's thoughts away from the temptation to reminding oneself of the consequences of wrong actions. Spiritually-based strategies were commonly named among those people use to resist temptation. In fact, among a random sample of 2,967 American teens and adults, prayer was the most common method named for resisting temptation. Other common spiritually-based approaches included thinking about God and holding the temptation up to biblical standards.

Among those who identify themselves as Christian, a little more than one-fourth (26.6%) indicate that their relationship with God helps them to resist temptation. Similarly, one out of five reads or listens to the Bible and almost the same proportion utilizes prayer. In total, roughly two-thirds of respondents indicated at least one of these three: their relationship with God, engaging scripture, and prayer.

Spiritually-based strategies were named even more frequently when respondents were asked to indicate their best method for resisting temptation. Survey responders tell us that their relationship with God, scriptural engagement, and prayer are their best defenses for resisting

temptation. For example, these are some of the words American Christians use to describe their best ways of resisting temptation:

As St. Paul said.. I boast in the Lord for in weakness, He is my strength". Everytime thoughts of temptation enters my mind, I say a short prayer to praise the Lord. If one practices this virtue, one will praise the Lord at least a dozen times a day, whether it is on the train, school, work place etc. _ temptation thoughts are not sinful but dwelling on them are sinful.

AS GOOFY AS IT SOUND WHEN I DIE I WANT TO HEAR "WELL DONE MY GOOD AND FAITHFUL SON". I THINK OF THIS AND HOW SAD GOD MUST BE WHEN I SIN.

You are not guilty of sin because you are tempted. You are guilty when you dwell on it or act on it. Best way to resist is to change thinking to something else, especially to God and Jesus.

Bible Engagement and Behavior

As mentioned previously, temptation simply reflects the desire to do something that you know you should not do. It does not necessarily translate into behavior. In order to understand the relationship between various aspects of spirituality, including Bible engagement, and risky behaviors, our surveys asked a series of questions about how frequently the respondent engages in smoking, getting drunk, gambling, pornography, sex outside marriage, and destructive thoughts. Table 1, following, shows that among adults, those who attend church, pray, or read the Bible are significantly less likely to engage in these behaviors. In terms of scriptural engagement in particular, those who read or listen to the Bible at least four times a week are the least likely to participate in any risk behavior and the least likely to engage in five of the seven specific behaviors examined.

Table 1. Spiritual Disciplines & Risk Behaviors Among American Adults.

| General Population Data - 18 yrs old and older | | | | | | | |
|---|------------------------|-----------------------|---------------------------|-------|--|-------|-----------|
| Engages in this habit at least every few months | Attends Church | | Prays at Least Once a Day | | Days Reading or Listening to the Bible | | |
| | Less than once a month | At least once a month | No | Yes | 0-1 | 2-3 | 4 or more |
| Smoking | 38.8%*** | 21.3% | 34.6% | 31.6% | 35.4%*** | 27.1% | 22.1% |
| Getting Drunk | 38.5%*** | 20.0% | 43.9%*** | 25.8% | 37.1%*** | 21.0% | 12.9% |
| Sex Outside Marriage | 33.8%*** | 19.2% | 40.1%*** | 22.7% | 33.0%*** | 19.6% | 12.3% |
| Pornography | 37.0%*** | 20.2% | 45.4%*** | 23.7% | 35.6%*** | 20.6% | 14.8% |
| Gambling | 33.7%*** | 21.4% | 34.1%*** | 26.9% | 32.2%*** | 24.8% | 17.7% |
| Destructive Thoughts | 28.4%*** | 20.8% | 29.7%** | 23.7% | 27.6%** | 22.0% | 18.6% |
| Any | 78.1%*** | 55.2% | 78.1%*** | 65.8% | 76.4%*** | 58.4% | 45.1% |

*p < .05, **p < .01, ***p < .001

When we examine spiritual disciplines and risky behavior among teenagers, a somewhat different picture emerges. Teens that read or listen to the Bible are significantly less likely to engage in risky behaviors. Moreover, those who do so at least four times a week have the lowest rates of involvement in all behaviors except pornography.

In contrast to what we found with adults, prayer and church attendance are not as strongly correlated with risk behaviors among teens. Those who attend church at least once a month are less likely to engage in any of the risk behaviors examined, except for destructive thoughts. Prayer is only predictive of a lower likelihood of getting drunk and of having destructive thoughts about oneself or others. However, given the current epidemic of violence among teens, it is sobering to find that even among those teens who pray at least once a day, nearly a quarter also say that they have destructive thoughts at least once every few months.

Table 2. Spiritual Disciplines & Risk Behaviors Among American Teens.

| General Population Data – 13-17 year olds | | | | | | | |
|---|------------------------|-----------------------|---------------------------|--------|--|--------|-----------|
| Engages in this habit at least every few months | Attend Church | | Prays at Least Once a Day | | Days Reading or Listening to the Bible | | |
| | Less than once a month | At least once a month | No | Yes | 0-1 | 2-3 | 4 or more |
| Smoking | 14.10%*** | 6.10% | 12.00% | 9.10% | 12.00%** | 8.50% | 2.80% |
| Getting Drunk | 14.30%*** | 5.20% | 13.80%* | 8.00% | 12.70%*** | 2.80% | 2.10% |
| Sex Outside Marriage | 15.10%*** | 7.10% | 12.90% | 10.20% | 13.10%* | 6.60% | 5.60% |
| Pornography | 8.60%* | 5.20% | 9.20% | 5.90% | 8.80%** | 1.90% | 2.80% |
| Gambling | 7.0%** | 2.40% | 6.00% | 4.10% | 6.30%** | 1.90% | 0.00% |
| Destructive Thoughts | 14.80% | 15.60% | 29.70%** | 23.70% | 16.50%*** | 17.00% | 9.10% |
| Any | 35.40%** | 25.70% | 33.20% | 29.30% | 34.70%*** | 27.40% | 15.40% |

*p < .05, **p < .01, ***p < .001

Is Bible Engagement Just Another Indicator of Spirituality?

The previous analyses demonstrated strong and consistent relationships between how often a person reads or listens to the Bible and their behavior. However, there is also evidence that such relationships exist for other spiritual disciplines, such as attending religious services and prayer. So is Bible engagement just another indicator of “spirituality” or is there something special about reading or listening to the Bible that makes it a more powerful than other practices? Not surprisingly, there are significant correlations among religious preference, Bible engagement, prayer, and church attendance. Table 3 shows a range of correlations from a low of 0.384 between church attendance and identifying as a born-again Christian and a high of 0.538 between church attendance and Bible engagement.

Table 3. Correlations Among Religious Preference and Spiritual Disciplines.

| | Days read or listen to the Bible | How often attend church | Identify as born again Christian | Prays at least once a day |
|------------------------------------|----------------------------------|-------------------------|----------------------------------|---------------------------|
| Days read or listen to the Bible | 1.000 | | | |
| How often attend church | .538** | 1.000 | | |
| Identify as a born again Christian | .453** | .384** | 1.000 | |
| Prays at least once a day | .433** | .467** | .406** | 1.000 |

*p < .05, **p < .01, ***p < .001

In order to test if Bible engagement is related to a lower likelihood of engaging in risky behaviors, beyond other more traditional measures of spirituality, we constructed logistic regression models for each risk behavior. Because the bivariate analyses indicated different relationships among the variables for adults and teens, we created separate models for these two groups. The results of our analyses for adults are presented in Table 4. For all models, the Model Chi Square is statistically significant, indicating that the model including the predictors fits the data significantly better than an intercept-only model. In addition, for all models, the probability for the Pearson Goodness of Fit Chi Square was greater than the conventional 0.05 level. This indicates that the models fit the data well.¹

As shown in Table 4, the demographic control variables, age and gender, significantly predict most risk behaviors. For all behaviors except gambling, each year older a respondent is, the lower his/her odds of engaging in that behavior. Women are significantly less likely to engage in all the behaviors examined, except for smoking and sex outside marriage.

¹ For the model of "Sex outside marriage", marital status was added as an additional control variable to improve the model fit. The addition of this predictor did not improve the model fit and its effect was not statistically significant for the other risk behaviors.

Attending church at least once a month significantly lowers the odds of engaging in each risk behavior as well. The change in odds varies across behaviors with the largest effects for smoking and engaging in any risk behavior and smaller effects for gambling.

Respondents who identify themselves as born-again Christians have significantly lower odds of getting drunk, gambling and pornography. However, such a religious preference is not a predictor of smoking, sex outside marriage, or engaging in any of the risk behaviors.

Similar inconsistent results are evident for prayer. Those who pray at least once a day are significantly less likely to engage in pornography, but more likely to smoke. Pray is not a significant predictor of gambling, sex outside marriage, or getting drunk.

In answer to our original question, Table 4 shows that across all behaviors except smoking, frequent Bible engagement is related to lower odds of engaging in that risky behavior. For example, controlling for the other variables in the model, the odds of a person who reads or listens to the Bible four or more times a week engages in pornography are 51% lower, than the odds of a person does not read or listen to the Bible at all. The odds of someone who engages scripture at least four times a week participating in any of these activities are 61% lower than the odds of someone who does not engage scripture at all.

Interestingly, we also find that there are no statistically significant differences between those who read or listen to the Bible one to three times a week and those who spent zero days doing so. In other words, for adults, engaging scripture for less than four days a week does not appear to have the same protective factor as doing so for four or more days.

Table 4. Odds Ratios from Logit Models Predicting Odds of Engaging in Risk Behaviors - Adults.

| | Smoking | Getting Drunk | Sex Outside Marriage | Pornography | Gambling | Any Habit |
|--|----------|---------------|----------------------|-------------|----------|-----------|
| Age | 0.99* | 0.95*** | 0.95*** | 0.96*** | 1.00 | 0.97*** |
| Female | 0.95 | 0.81* | 1.23 | 0.23*** | 0.63*** | 0.73* |
| Married | | | 0.11*** | | | |
| Identifies as a born again Christian | 0.91 | 0.63** | 0.94 | 0.72* | 0.70** | 1.02 |
| Attends church at least once a month | 0.41*** | 0.62** | 0.69* | 0.70* | 0.74* | 0.47*** |
| Prays at least once a day | 1.39** | 0.89 | 0.82 | 0.75* | 1.49 | 1.22 |
| Reads/listens to the Bible 4 or more days/week | 0.85 | 0.51** | 0.49** | 0.49** | 0.57** | 0.39*** |
| Reads/listens to the Bible 1 to 3 days/week | 1.02 | 0.82 | 0.78 | 0.76 | 0.76 | 0.74 |
| -2 Log Likelihood | 1436.69 | 1189.69 | 1162.05 | 1135.8 | 1375.33 | 1411.95 |
| Model Chi Square | 85.14*** | 363.79*** | 633.86*** | 470.74*** | 82.17*** | 259.90*** |

N = 2,159 *p < .05, **p < .01, ***p < .001

Table 5 shows that the logistic regression models for teens differ markedly from the models for adults. For all models, the Model Chi Square is statistically significant, indicating that the model including the predictors fits the data significantly better than an intercept-only model. In addition, for all models, the probability for the Pearson Goodness of Fit Chi Square was greater than the conventional 0.05 level. This indicates that the models fit the data well.

Age is significant predictor for all risk behaviors. For each year older a teen is, the odds of engaging in a risk behavior increases.

Surprisingly, gender predicts only pornography use. Compared to males, the odds that a teen girl will engage in pornography are 78% lower.

Also surprising is that most of the religious preference and spiritual disciplines predictors are not significant. We find no effects for church attendance and prayer among teens.

Identifying as a born-again Christian is only significant for lowering the odds of getting drunk.

Scripture engagement is a statistically significant predictor in three of the five models for teens. Those who read or listen to the Bible at least four days a week have lower odds of smoking, getting drunk or engaging in any of the risk behaviors examined than their peers who

do not read the Bible at all. Similarly, teens who engage scripture one to three days are less likely to smoke, get drunk, or participate in a risk behavior than those who do not engage scripture at all.

Table 5. Odds Ratios from Logit Models Predicting Odds of Engaging in Risk Behaviors - Teens.

| | Smoking | Getting Drunk | Sex | Pornography | Any Habit |
|--|----------|---------------|----------|-------------|-----------|
| Age | 1.28** | 1.28** | 1.56*** | 1.34* | 1.30*** |
| Female | 0.76 | 0.64 | 0.70 | 0.22*** | 0.87 |
| Identifies as a born again Christian | 1.27 | 0.39* | 0.62 | 1.00 | 1.06 |
| Attends church at least once a month | 0.61 | 0.76 | 0.62 | 0.89 | 0.86 |
| Prays at least once a day | 1.54 | 1.40 | 1.66 | 1.12 | 1.33 |
| Reads/listens to the Bible 4 or more days/week | 0.18** | 0.20* | 0.51 | 0.34 | 0.31*** |
| Reads/listens to the Bible 1 to 3 days/week | 0.45* | 0.38* | 0.66 | 0.65 | 0.76 |
| -2 Log Likelihood | 195.02 | 175.51 | 197.56 | 160.01 | 329.95 |
| Model Chi Square | 34.44*** | 50.92*** | 46.80*** | 41.68*** | 46.20*** |

N = 808 *p < .05, **p < .01, ***p < .001

Discussion

In this paper, we have drawn on a large body of quantitative and qualitative survey data to explore the relationships among temptation, risk behaviors, and various aspects of spirituality. Our particular focus on Bible engagement expands the existing literature which tends to focus more on measures such as religious service attendance, prayer, and how people feel about their spiritual beliefs.

Consistent with other studies, we find that the majority of Americans do not read or listen to the Bible at all in an average week. The majority were, however, tempted at least once to engage in a behavior that they know they should not. For men, most temptations center on sexuality, while women report a wide variety of temptations from gossip to overeating. Both genders frequently use spiritually-based strategies for resisting temptation.

In terms of actual behaviors, both bivariate and multivariate analyses reveal that, among adults, those who identify as born-again Christians, who attend church at least once a month, and who read or listen to the Bible are less likely to engage in risky behaviors. The effects for prayer are less consistent across different types of risk behavior.

Interestingly, we find no effects for church attendance and prayer among teens. Also among this population, identifying as a born-again Christian predicts lower odds only for getting drunk. Our models show that Bible engagement was the best spiritually-based predictor among 13 to 17 year olds, significantly predicting three out of the five risk behaviors examined.

In sum, these findings indicate that Bible engagement is an important aspect of spirituality in and of itself, and is not simply another marker for “spirituality”. Reading or listening to the Bible provides a measure of protection against the temptation of risky behaviors, a finding also consistent with studies of the effects of priming with the Ten Commandments on cheating (Ariely, 2008). They are also in line with recent discussions about the distinction between religion and spirituality. In particular, our models showing that church attendance and scriptural engagement are independent predictors of risk behaviors are similar to Hodge, Andereck, & Montoya’s (2007) findings that a religious and spiritual lifestyle provides the most protective influence on tobacco smoking, alcohol consumption, and gambling. In today’s society it seems that the number and variety of temptations people face each day continue to grow. Encouraging those who are struggling to engage scripture is a promising strategy for effectively resisting those temptations.

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