

Abstract

There is a need for alternative explanatory frameworks of addiction for reducing stigma – notably ones that are culturally and religiously appropriate. This study utilized an experimental design with a sample ($N = 416$) of self-identified Christians gathered from an online community, Amazon's MTurk. Participants read a case vignette on addiction, then were randomly assigned to watch a 90-105 second video of a pastor sharing one of four perspectives: a brain disease etiology, a moralizing (i.e. individual sin) Christian etiology, a non-moralizing (i.e. systemic evil) Christian etiology, or a Christian ethical justification for compassion towards people with addiction. The aim of this study was to assess which explanatory framework was most effective in reducing stigma. Outcome measures included items assessing agreement with the video, five established and adapted measures of stigma, and the Duke University Religious Index (DUREL). MANCOVA and multivariate regression analyses were conducted to determine the effects of video type, video agreement, and intrinsic religiousness, on blaming, negative stereotypes, social inclusion, optimistic prognosis, and compassion. Findings indicated that the videos had a significant effect on two types of stigma: social inclusion and compassion. The video of the compassion perspective was associated with greater agreement, especially among those higher in intrinsic religious motivation, and resulted in increased social inclusion and compassion towards a person with addiction. This compassionate perspective might be a useful way for Christian pastors, leaders, and congregants to communicate about addiction.

Background

- Those with substance use disorders (SUD), especially involving "harder" substances, are stigmatized by the general population (Dschaak & Juntunen, 2018; Brown, 2015; Lang & Rosenberg, 2017; Mannarini & Boffo, 2015).
- Substance use disorders are associated with greater stigma than other mental illnesses (Barry et al., 2014)
- The construct of stigma is multifaceted and includes many negative elements, such as blame, negative stereotypes, social distancing, and pessimistic prognosis (Kvaale et al., 2013).
- The brain disease model of addiction (BDMA) is commonly advocated as the predominant response to stigma towards people with SUD. However, the BDMA has two shortfalls: the public does not easily accept it as an explanation and this explanation is associated with mixed effects on stigma.
- Alternative explanatory frameworks that can ameliorate stigma and be readily available by the public should be explored. In particular, explanations that are compatible with the perspectives of faith communities are needed.
- Moreover, research on stigma ought to investigate positive constructs that emphasize ethical values in order to invigorate new approaches.
- This study aims to assess the effect that Christian perspectives have on stigma towards people with SUD. The Christian perspectives include three explanatory frameworks for addiction, individual sin, systemic sin, and biogenetic cause, as well as a non-explanatory framework, justification for compassion.
- Research Question: What effects do these Christian perspectives have on stigma towards SUD?

Method

Participants

Participants ($N = 415$) were self-identified Christians recruited from Amazon's MTurk. Females (55.1%) were a slight majority. The average age was 38.25 ($SD = 11.93$). The ethnic representation was predominately Caucasian (69.9%), with African-American (14.5%), Hispanic (8.2%), Asian-American (5.1%), Biracial (1.9%), and Other (0.5%) also represented. The sample's marital status was diverse, with married (49%) most common, followed by Never married (34.5%), Divorced (9.3%), Separated (2.9%), and Widowed (2.6%). The sample was highly educated, with 4-year college (39.8%) being most common, followed by Some college (19.3%), Professional degree (13.8%), 2-year college (13.1%), High school graduate (11.9%), Doctorate (0.7%), and Less than high school (0.2%). The predominate Christian denomination was Protestant (48.9%), followed by Catholic (37.2%), and Other (3.6%), Eastern Orthodox (3.3%), Mormon (2.9%), Pentecostal (1.9%), and Jewish (1%) also represented.

Measures

We used some established scales, adaptations to others, and developed one new measure to add to the literature.

- Blame** was measured with the 4-item blame subscale of the AQ-27, developed by Corrigan et al. (2003)
- Negative Stereotypes** were measured with an agreement subscale of the SSMIS, which measures one's agreement to the general public's negative stereotypes of mental illness (Corrigan, Watson, & Barr, 2006)
- Optimistic Prognosis** was measured with three items of the recovery and outcome subscale developed by Kobau, Dilorio, Chapman, and Delvecchio (2009) and three additional items developed to assess optimistic prognosis
- Social Inclusion** was measured with a social distancing scale developed by Wolkenstein and Meyer (2008).
- Compassionate Attitudes** were measured with a 5-item compassion toward mental illness scale developed to assess compassionate attitudes toward persons with addiction.
- Intrinsic Religious Motivation** was measured using The Duke University Religious Index (DUREL; Koenig & Bussing, 2010)

Procedures

This study was conducted with an experimental design. Participants responded to a posting on MTurk and were directed to an online survey on Qualtrics. After providing informed consent, participants confirmed that they identified as Christian, those who did not were excluded from the study. First, participants read a vignette on "Alex" who is addicted to prescription pain killers. Next, participants are randomly assigned to one of four video conditions, where Pastor Chris discusses Alex's case from a particular Christian perspective (individual sin, systemic sin, biogenetic, or compassion). Following the video, participants were administered scales assessing blame, agreement with negative stereotypes, optimistic prognosis, social inclusion, compassionate attitudes, intrinsic religious motivation, and demographic questions.



Results, cont.

Figure 5: Association of Blame with Agreement by Video Type

The MANOVA predicting Blame with Video Type, Agreement, and VideoType*Agreement was significant, $F(7, 405) = 7.37, p < .0001, R^2 = .11$. The effect of Video Type was not significant, $F(3, 409) = 2.58, p = .053$. The interaction was significant with each parameter estimate being significant.

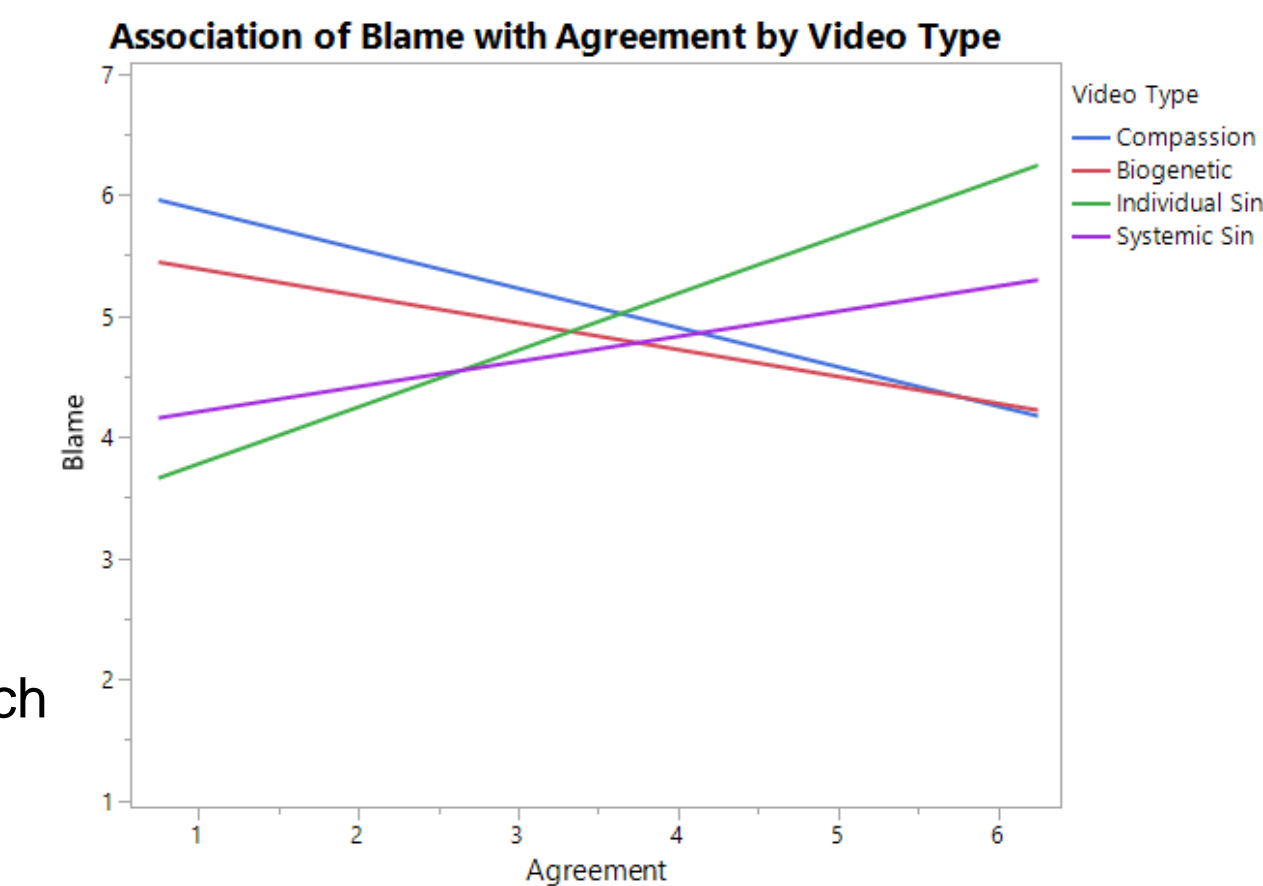
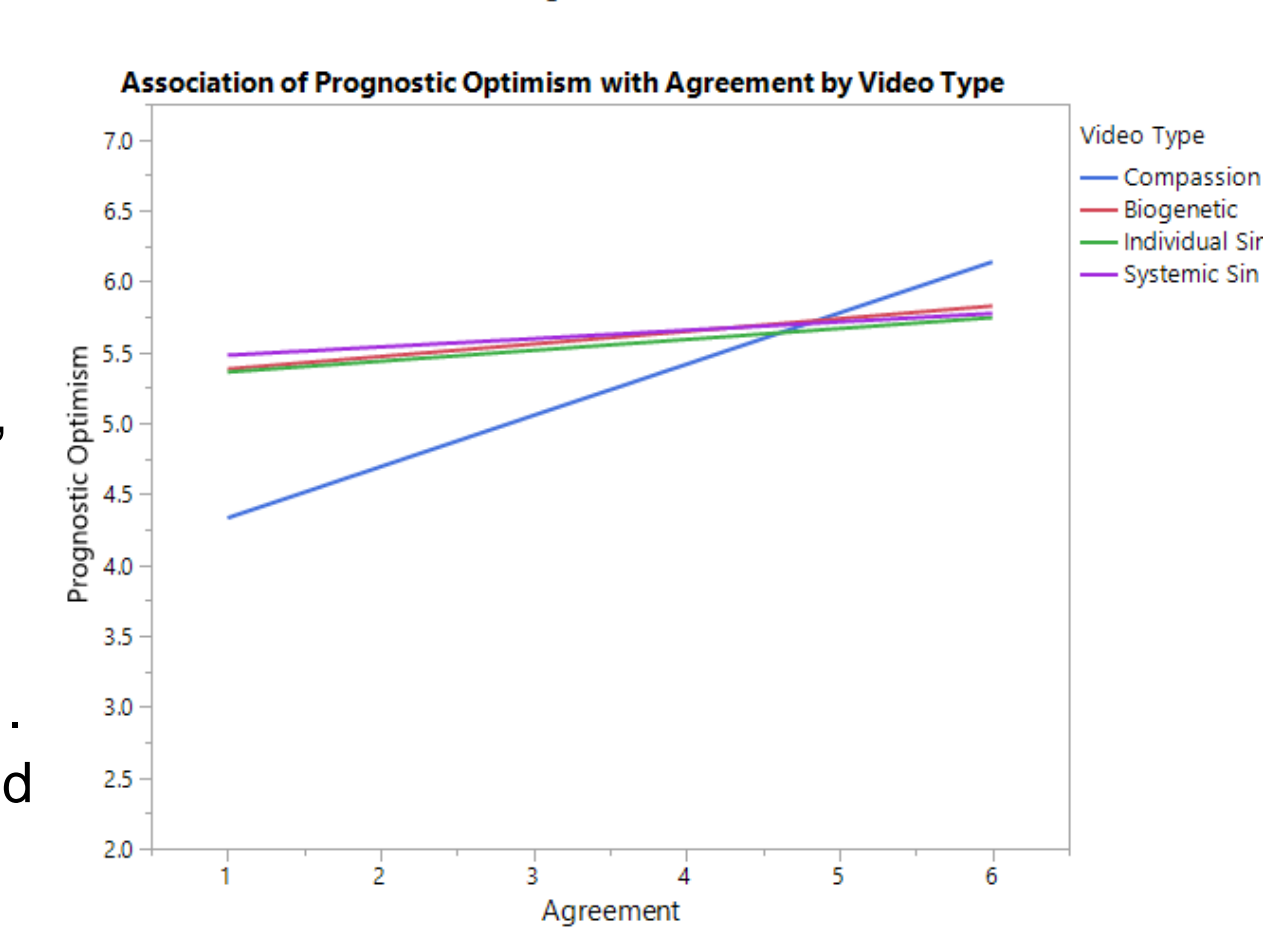


Figure 6: Association of Optimistic Prognosis with Agreement by Video Type

The MANOVA predicting Optimistic Prognosis with Video Type, Agreement, and VideoType*Agreement was significant, $F(7, 405) = 8.12, p < .0001, R^2 = .12$. The effect of Agreement was significant, $F(1, 411) = 43.09, p < .0001$. The interaction between Video Type and Agreement was significant, $F(3, 409) = 2.93, p = .03$.

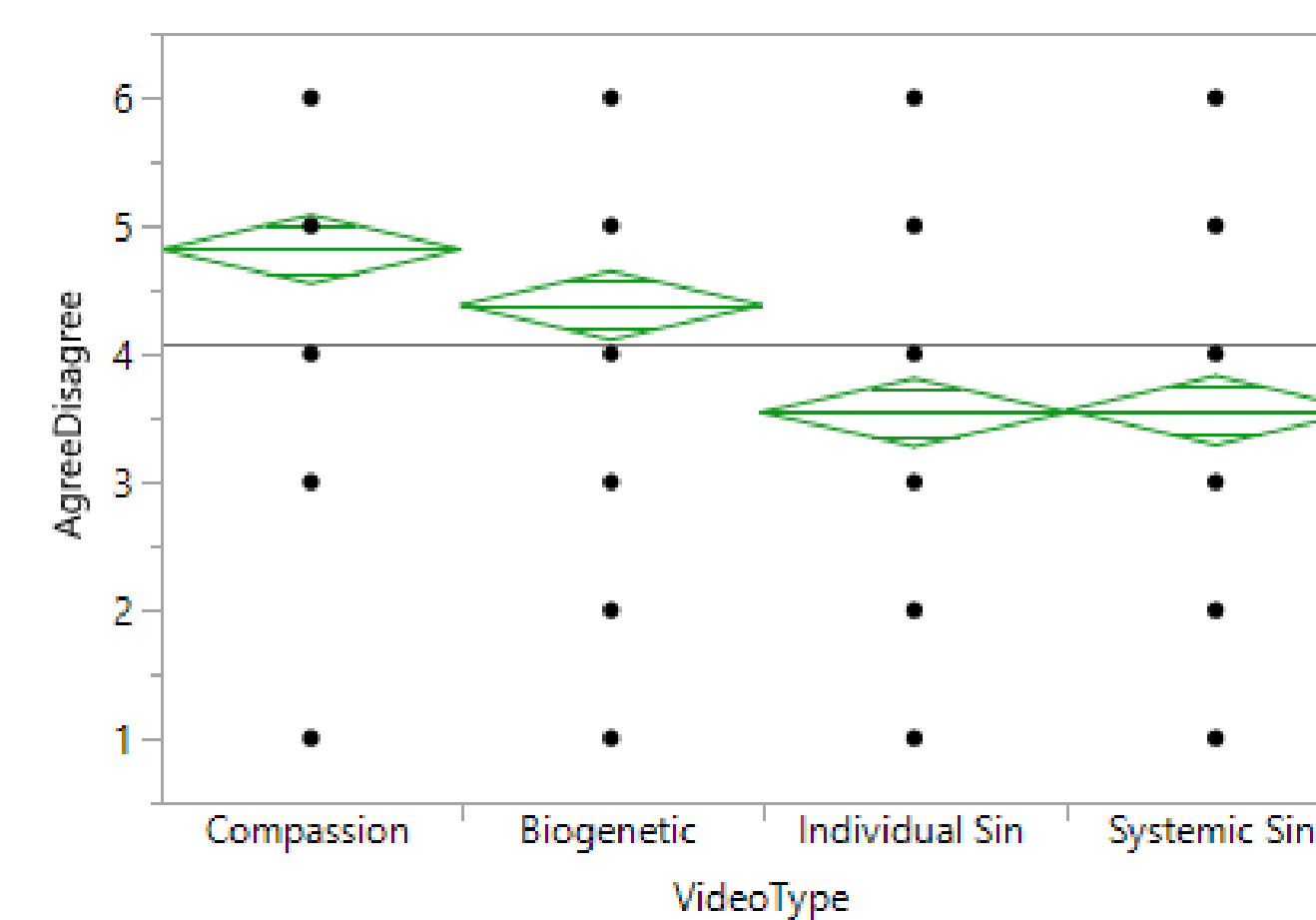


Results

Table 1. Descriptive Statistics of Stigma Measures

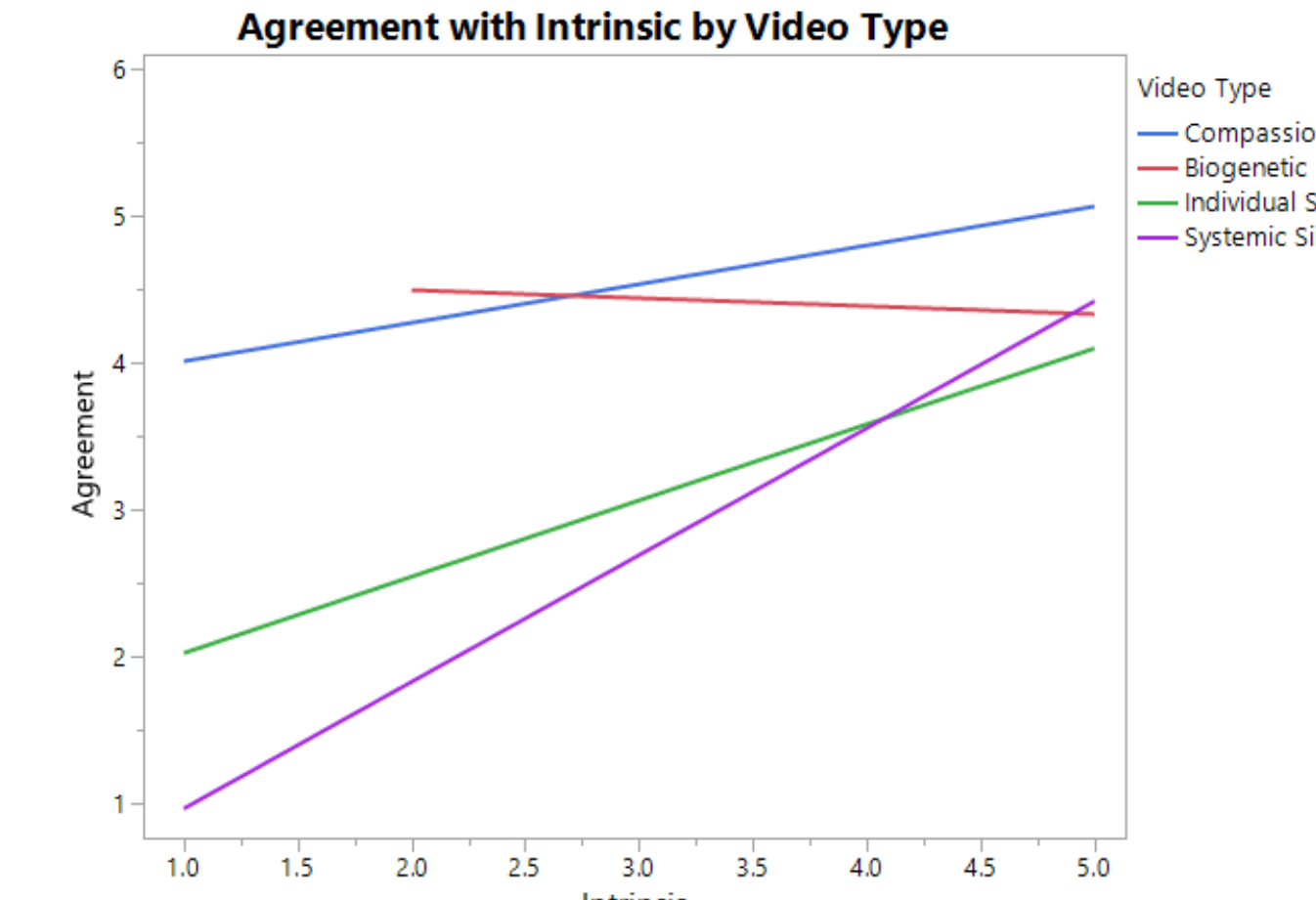
Variable	Mean	SD	Alpha
Blame	19.27	5.60	.89
Social Inclusion	46.34	14.68	.95
Negative Stereotypes	21.97	7.67	.92
Prognostic Optimism	33.84	5.62	.92
Compassion	32.62	6.78	.92
Intrinsic	12.10	2.61	.88

Figure 1. Association of Video Type with Agreement



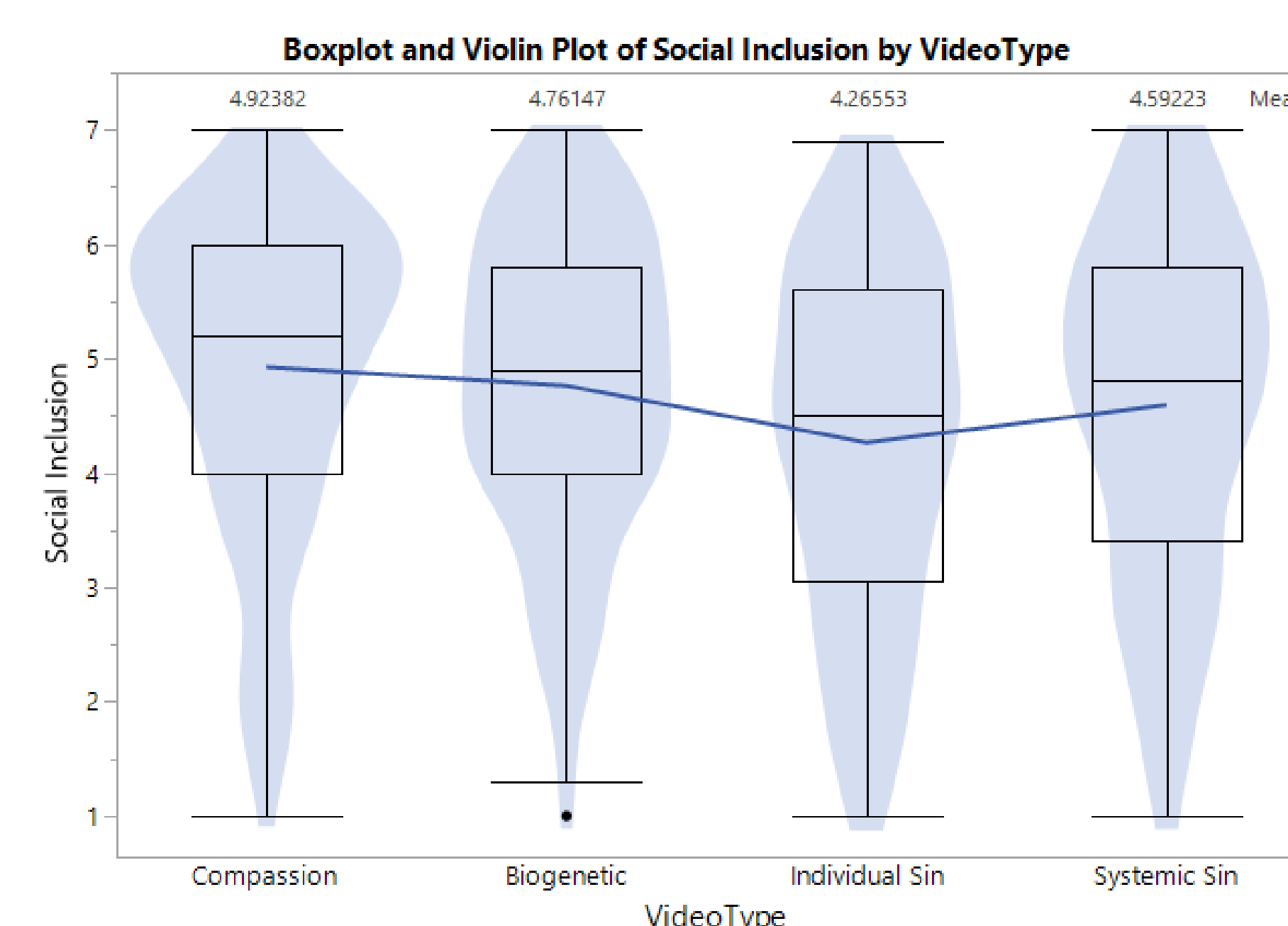
The main effect of Video Type on Agreement was significant, $F(3, 409) = 21.51, p < .0001, R^2 = .14$

Figure 2. Association of Intrinsic with Agreement by Video Type



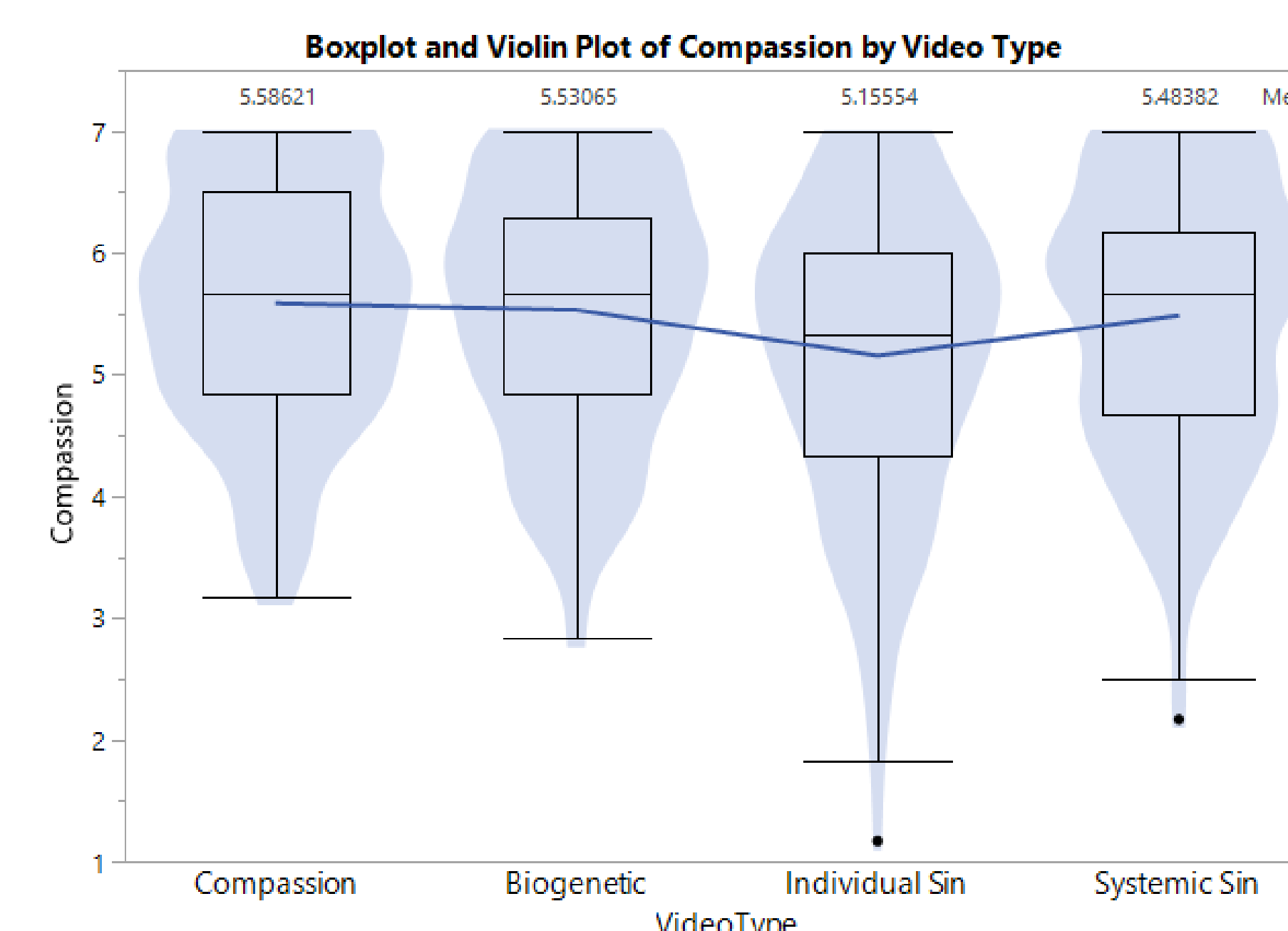
The association of Intrinsic and Video Type with Agreement was significant, $F(4, 409) = 21.51, p < .0001, R^2 = .24$

Figure 3: Boxplot of Social Inclusion by Video Type



The main effect of Video Type with Social Inclusion was significant, $F(3, 411) = 3.91, p = .009, R^2 = .03$.

Figure 4: Box and Violin Plot of Compassion by Video Type



The main effect of Video Type with Compassion was significant, $F(3, 411) = 3.11, p = .03, R^2 = .02$.

Discussion

- The study demonstrates that a short video communicating a Christian perspective on addiction had a causal effect on some aspects of stigma, specifically in increasing social inclusion and compassion.
- This suggests that pastors can have an effect on stigma among Christian audiences that can differ based upon the perspective on addiction that they share.
- The significant impact on stigma was largely driven by the individual sin perspective, which was associated with less social inclusion and less compassion than the other three perspectives. Individual sin is similar to the so-called moral model of addiction, arguing that substance use is under a person's control and will-power.
- The compassionate perspective showed promise for Christian audiences because it was associated with greater overall agreement than the other perspectives, especially among those higher on intrinsic motivation. This suggests that Christian audiences might readily accept this perspective.
- Moreover, correlational findings suggested that those who agreed with the compassionate perspective were less blaming and more optimistic about recovery.

Limitations and Future Directions

- The study design only assessed for stigma after the video clips. Therefore, it is not clear how stigma scores were affected by the videos.
- The causal effect size of the videos was small. The videos may indeed have small effects or, alternatively, the videos have moderate effects but in the same direction. Other factors affecting the effect size could be:
 - The video conditions are short clips, on average one minute and 30 seconds, which may not have been enough time for persuasion.
 - A "pastor" may not be accepted as a religious leader by all participants. Moreover, there was no existing relationship with the pastor.
 - Videos were less than 105 seconds long, in a longer sermon with a more engaging medium, there would likely be a larger effect size.
- Findings may not be generalizable to non-Caucasian populations or among less represented denominations.
- This study suggested that communicating a Christian justification for compassion may have benefits for reducing stigma with Christians. Future studies should continue to investigate this perspective, utilizing a pre and post test.